SUM PROGRAM

The SUM Program for Medical Transcription Training

The SUM Program Curriculum for Medical Transcription Training

TEACHER'S MANUAL

An Educationally Sound Integrated Curriculum for Teaching Medical Transcription

H·E·A·L·T·H PROFESSIONS HPI INSTITUTE

Health Professions Institute

5th Edition Revised

The SUM Program for Medical Transcription Training

Teacher's Manual, 5th Edition, Revised

Contents

Health Professions Institute

The Leader in Quality Medical Transcription Training and Reference Materials

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Instructions for the Teacher

These instructions pertain chiefly to teachers using *The SUM Program* recommended textbooks and references. However, these guidelines should be read by ALL teachers, even those using alternative textbooks in their medical transcription programs and those not offering all of the recommended classes.

As the technical demands on medical transcriptionists increase, so do the educational demands placed on medical transcription instructors and programs. It is no longer acceptable for a medical transcription program to offer abbreviated courses below college level; to offer transcription experience with tapes read by professional dictators rather than authentic physician dictation; or to fail to offer education in medical terminology, anatomy, human diseases, surgical procedures, laboratory, imaging, and pharmacology as it pertains to the MT industry.

The demand for a high-quality, professional medical transcription program is laid at the feet of the instructors. However, a great deal of time is needed to thoughtfully plan the myriad details of even a single course. Medical transcription instructors can find themselves overwhelmed with departmental requests for course syllabi complete with course descriptions, prerequisites, and detailed course objectives; a weekly class schedule of lecture topics and reading assignments to hand out to students; the selection of suitable textbooks; and the preparation of each week's lecture material. Even the most experienced instructors can find themselves so inundated with paperwork that it is difficult to step back and take time to evaluate course materials to see if they are up-to-date and comprehensive.

Program directors want assurance that the entire training program is comprehensive, that the content of each course is coordinated with and complementary to other courses, and that students who complete the program will be employable, having excellent skills in all facets of medical transcription.

The SUM Program Course Syllabi

To fulfill all of the above needs, Health Professions Institute has developed a comprehensive, flexible, detailed curriculum adaptable to any setting. Each course syllabus contains:

- Course description
- Recommended course length
- Prerequisites
- Course objectives
- Resource materials (recommended and supplementary textbooks)
- Schedule of lecture topics
- Assignments for readings, exercises, and medical transcription practice

Tips for the Teacher

Teachers should begin by reading the introductory articles in the second edition of *The SUM Program Beginning Medical Transcription Transcript Keys* book available on CD-ROM. These articles provide information on using *The SUM Program* in general, on transcribing medical reports, using references, editing dictation, and much more. Refer to these guidelines as necessary.

The next step is to review the Sample Formats section in the Transcript Keys. The samples provided demonstrate some of the common report formats used in medical offices, clinics, hospitals, and medical centers. Students should be aware that these are ONLY samples, and that there are numerous report formats in use throughout the country. It is good practice to have students set up reports using an appropriate report format.

Course Descriptions and Outlines

The *Teacher's Manual* course descriptions and outlines are divided into beginning, intermediate, and advanced sections. Seven courses comprise the beginning (medical) section: Anatomy and Physiology, Medical Terminology, Medical Science, Human Diseases *or* Disease Processes, Pharmacology, Laboratory Tests and Diagnostic Procedures in Medicine I, and the combined course Beginning Medical Transcription Practice/Professional Issues. The three intermediate (surgery) courses are Surgical Procedures, Laboratory Tests and Diagnostic Procedures in Medicine II, and Intermediate (Surgery) Medical Transcription. The advanced program consists entirely of advanced medical transcription practice.

Included in the *Teacher's Manual* are assignment sheet grids (pp. 31-37, 46-48). The assignment grid for Beginning (Medical) Transcription provides reading and exercise assignments in the recommended textbooks. These assignments are divided into 15 sections and can be incorporated into one semester by assigning one section per week; two semesters by taking two weeks to complete each section; incorporated into a nine-month intensive technical program; or they can be assigned at the student's own pace. The materials are easily adapted to fit ANY schedule. There is a similar assignment grid for the intermediate and advanced classes.

Using the Assignment Grid

To use the assignment grid—Beginning (Medical) Transcription, 2nd ed., for example—refer to pp. 31-37 in this *Teacher's Manual*. Down the left column of the page is the section number with the medical specialty (note that Section 1 says "Introduction, Dermatology/Plastics"). Across the top of the grid are the seven courses. For example, under Anatomy and Physiology, note the assigned pages for Section 1 reading and exercises in the recommended textbook. These are the assignments the students should complete first. After completing the Section 1 assignments for

Anatomy and Physiology, they should move on to the Medical Terminology course for Section 1. When they have completed the readings and exercises for Medical Terminology, they should go next to the Medical Science assignments for Section 1, and so on, until they have finished all of the textbook readings and exercises within a section.

If class time for medical transcription practice is short, all of the readings and exercises can be assigned as homework prior to the transcription practice for that section. Student questions, problems, or specific challenges can be discussed as a group when the class next meets.

Helpful Hints

It is advantageous to have the students complete the textbook readings and assignments BEFORE attempting to transcribe the section's corresponding dictation assignment. **Insist that students use their dictionaries and other reference books to look up unfamiliar words.** If students are permitted access to the transcript answer keys, DO NOT let them refer to the keys until you are sure that they have completed the reports to the best of their abilities **first**.

You may want to review the transcript keys prior to the students transcribing them, extracting terminology and abbreviations important for them to know. These can be discussed in a lecture or dictated to the students and assignment made for the students to look them up in a dictionary. Once a class has completed the dictations, you will be able to see patterns in their errors and prepare lectures or handouts to help students in subsequent classes avoid these same mistakes.

The students' ultimate goal is to produce an error-free document the first time they transcribe it, but this will take some time. They may find it necessary to transcribe a report more than twice before producing a correct document.

Although punctuation is important in medical transcription, many students spend way too much time fretting over its proper usage. This is especially true with commas! **Learning to interpret dictated medical words is much more important.**

Even if students have taken classes previously in anatomy, medical terminology, human diseases, etc., they should still complete the assigned material from the respective textbooks before transcribing each section. In this way their frame of reference is much enhanced and the learning process greatly accelerated.

We hope that this *Teacher's Manual* will save the instructor a great deal of preparation time. Comments and feedback are welcome.

Ellen Drake, CMT, AHDI-F
Development Editor
Health Professions Institute

The SUM Program for Medical Transcription Training
Beginning Course Descriptions and REQUIRED Textbooks

The SUM Program combines an academic curriculum with intensive technical training in medical, surgical, and specialty transcription. It is a three-tiered program consisting of beginning (medical), intermediate (surgery), and advanced levels. All of the beginning courses described below are to be studied concurrently; similarly, all intermediate courses are to be studied together. There are no textbook readings for advanced transcription. Detailed instructions are provided in *The SUM Program Student Syllabus*. The assignments outlined in the *Student Syllabus* are based on the use of the textbooks below. Many of the required textbooks and references are available on four-track cassette audiotape, in Braille, or in electronic media.

Prerequisites for Using *The Sum Program* Curriculum

Beginning students: A mastery of English and spelling and a minimum typing speed of 50 words per minute are necessary. An electronic spellcheck is not a substitute for good spelling skills.

Intermediate students: Successful completion of Beginning Medical Transcription, 2nd ed., and all of the ancillary courses listed below for beginning students.

Advanced students: Successful completion of Intermediate Medical Transcription and all of the ancillary courses listed below for intermediate students.

Anatomy and Physiology (Beginning)

Description: The study of the structure and function of the human body; body organization, chemical and cellular structure and function; the sense organs; integumentary, urinary, digestive, musculoskeletal, respiratory, endocrine, reproductive, neuropsychiatric, and immune systems.

Textbook: *Memmler's Structure and Function of the Human Body*, 9th ed., by Cohen and Wood, 2008. Published by Wolters Kluwer Health. Phone (800) 638-3030. Order online **www.lww.com**/ ISBN #0-7817-6595-1.

Medical Terminology (Beginning)

Description: An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary in all the body systems and medical specialties, in laboratory medicine and imaging, and in pharmacology.

Textbook: *The Language of Medicine*, 8th ed., by Davi-Ellen Chabner, 2007. Published by Elsevier/Saunders Co. Order online: **www.us.elsevierhealth.com/** Phone (800) 545-2522. ISBN #1416034927. **Or** *Medical Language: Immerse Yourself*, by Susan M. Turley. Published by Pearson Prentice Hall, Inc., 2007. ISBN #978-0130940094.

Medical Science (Beginning)

Description: Content and terminology used under each of the main headings within a history and physical examination report. An in-depth study of the history and physical examination. Understanding interrelationships and medical cause and effect in anatomy and

physiology, medical terminology, pharmacology, and laboratory procedures as demonstrated through exercises based on actual medical reports.

Textbook: *H&P: A Nonphysician's Guide to the Medical History and Physical Examination*, 4th ed., by John H. Dirckx, M.D., 2009. Published by Health Professions Institute, P. O. Box 801, Modesto, CA 95353. Phone (209) 551-2112; fax (209) 551-0404; e-mail hpisum@hpisum.com. Order online **www. hpisum.com**. ISBN #01-934385-96-3. Previous edition available from RFB&D, Ref. No. DR549.

Laboratory Tests and Diagnostic Procedures in Medicine I

Description: An introduction to six principal types of diagnostic procedure: physical measurements, electrodiagnostics, endoscopy, medical imaging, and clinical pathology. For each test or procedure, methodology, indications or purposes, and range of results is covered to enable the student to recognize pertinent terminology and to grasp the general sense of a report.

Textbook: *Laboratory Tests and Diagnostic Procedures in Medicine*, by John H. Dirckx, M.D., 2004. Published by Health Professions Institute. ISBN# 0-934385-49-1. Order online: **www.hpisum.com**/ Available from RFB&D, Ref. No. GG786.

Pharmacology (Beginning)

Description: An introduction to the principles of pharmacology and a comprehensive study of drug action, routes of administration, classes of drugs by body system, as well as antibiotics, antiviral drugs, IV fluids, blood products, anesthetics, emergency drugs, vaccines and immunizations, and chemotherapy agents.

Textbook: *Understanding Pharmacology for Health Professionals*, 4th ed., by Susan M. Turley, 2010. Published by Prentice Hall/Pearson Education. Phone (800) 947-7700. ISBN# 0-13-5145708.

Human Diseases *or* Disease Processes (Beginning)

Description: A comprehensive study of disease processes (causes, symptoms, diagnosis, and treatments), organized by body system.

Textbook: *Human Diseases*, 3rd ed., by John H. Dirckx, M.D., 2009. Published by Health Professions Institute. ISBN# 0-934385-97-1. Previous edition available from RFB&D, Ref. No. GH795.

Beginning Medical Transcription Practice/Professional Issues

Description: Transcription of authentic physician-dictated reports organized by body systems. Emphasis on development of accuracy, speed, and medical knowledge for transcription of nonsurgical medical dictation: letters, chart notes, history and physical examination reports, consultations, emergency room reports, and discharge summaries. Using reference materials and other resources efficiently. Editing and proofreading techniques. Understanding professional issues in medical transcription. Grammar and punctuation review.

Textbook: *The Medical Transcription Workbook*, 3rd edition (2010). Published by Health Professions Institute. ISBN#0-934385-99-8.

Transcription Materials: *The SUM Program Beginning Medical Transcription Unit*. Available on CD-ROM.

Surgical Procedures (Intermediate)

Prerequisites: Anatomy and Physiology, Medical Science, Medical Terminology, Disease Processes.

Description: A comprehensive study of surgical techniques, instruments, and operative procedures by body system.

Textbook: *Surgical Technology Principles and Practice*, 5th ed., by Joanna Kotcher Fuller, 2010. Published by W.B. Saunders Co. **www.us.elsevierhealth.com**/ ISBN #978-1-4160-6035-2.

Laboratory Tests & Diagnostic Procedures in Medicine II

Prerequisites: Completion of Laboratory Tests and Diagnostic Procedures in Medicine I.

Description: A continuation of Laboratory Tests and Diagnostic Procedures in Medicine I that includes advanced medical imaging procedures and anatomic pathology. For each test or procedure, the methodology, indications or purposes, and range of results are covered to enable the student to recognize pertinent terminology and to grasp the general sense of a report.

Textbook: *Laboratory Tests and Diagnostic Procedures in Medicine*, by John H. Dirckx, M.D., 2004. Published by Health Professions Institute. ISBN #0-934385-49-1. Order online at **www.hpisum.com**/ Available from RFB&D, Ref. No. GG786.

Intermediate (Surgery) Transcription Practice (Intermediate)

Prerequisites: Beginning Medical Transcription or previous experience as a medical transcriptionist. Completion of beginning courses in Anatomy/Physiology, Medical Terminology, Human Diseases *or* Disease Processes, Medical Science, Pharmacology, Laboratory Tests and Diagnostic Procedures in Medicine. Minimum typing speed of 50 corrected words per minute. College-level proficiency in spelling, English grammar, and usage.

Description: The transcription of physician-dictated surgery reports, organized by medical specialty. Emphasis on the development of accuracy, speed, and surgical knowledge for the transcription of operative reports, diagnostic studies, and procedure notes. Using reference materials and other resources efficiently. Editing and proofreading techniques. Written surgery exercises.

Textbook: *The Medical Transcription Workbook*, 3rd edition (2010). Published by Health Professions Institute. ISBN #0-934385-99-8. Order online at **www.hpisum.com**/

Advanced Medical Transcription Practice (Advanced)

Prerequisites: Beginning (Medical) Transcription, Intermediate (Surgery) Transcription, or previous experience as a medical transcriptionist. Completion of courses in Anatomy/Physiology, Medical Terminology, Disease Processes, Surgical Procedures, Medical Science, Pharmacology, Laboratory Tests and Diagnostic Procedures in Medicine. Minimum typing speed of 50 corrected words per minute. College-level proficiency in spelling, English grammar, and usage.

Description: Transcription of more challenging authentic physician-dictated reports organized by medical specialty. Emphasis on development of accuracy, speed, and medical knowledge for transcription of history and physical examination reports, consultations,

emergency room reports, discharge summaries, operative reports, laboratory reports, diagnostic studies, radiology and pathology reports. Using reference materials and other resources efficiently. Editing and proofreading techniques. Grammar and punctuation review.

Transcription Materials: *The SUM Program* units in Cardiology, Orthopedics, Gastrointestinal, Pathology, and Radiology. Available on CD-ROM.

Required Reference Books

Each student should have the following books:

- A **standard collegiate dictionary**, such as Merriam Webster's current edition.

- A **comprehensive medical dictionary**, such as:

Dorland's Illustrated Medical Dictionary, latest edition. Published by Elsevier., Philadelphia, PA. **www.us.elsevierhealth.com**/ Phone (800) 545-2522. Also on CD-ROM. Also available from RFB&D, Ref. No. CD483.

OR

Stedman's Medical Dictionary, latest edition. Published by Lippincott Williams & Wilkins, Baltimore, MD. **www.lww.com.** Phone (800) 638-3030. Also on CD-ROM. ISBN #978-0-7817-3390-8.

- A style guide, such as:

The Book of Style for Medical Transcription, 3rd edition (2008). Published by AHDI (Association for Healthcare Documentation Integrity, formerly AAMT), Modesto, CA. Phone (800) 982-2182, (209) 527-9620. Comes with CD-ROM. Order online from **www.ahdionline.org**. ISBN #978-0-935229-58-5.

OR

Medical Transcription Guide Do's and Don'ts, 3rd ed, 2004. Published by Elsevier, Philadelphia, PA. **www.us.elsevierhealth.com**/ Phone (800) 545-2522. ISBN13-9780721606842.

- ***Saunders Pharmaceutical Word Book***, by Drake and Drake. Published yearly by Elsevier, Philadelphia, PA. **www.us.elsevierhealth.com**/ Phone (800) 545-2522. ISBN #978-1-4377-0995-7. Also on CD.

- ***Vera Pyle's Current Medical Terminology***, current edition. Published every other year by Health Professions Institute, Modesto, CA. Phone (209) 551-2112. Order online from **www.hpisum.com**.

Optional Reference Book

- ***Medical Phrase Index***, 5th edition, by Jean A. Lorenzini. Published by PMIC, Willowbrook, IL. Phone (800) MED-SHOP. Medical and surgical phrases are listed in alphabetical order and are easy to locate. No definitions. **www.pmiconline.com**.

Anatomy and Physiology
Course Description

Course Description: The study of the structure and function of the human body; body organization, chemical and cellular structure and function; the sense organs; integumentary, urinary, digestive, musculoskeletal, respiratory, endocrine, reproductive, neuropsychiatric, and immune systems.

Recommended Prerequisites: None.

Recommended Course Length: 45 hours (3 hours per section).

Course Objectives

1. On an anatomical drawing, identify and label the component structures or organs within a given body system.
2. Describe the function of structures or organs within a given body system.
3. Correctly spell common structures, organs, and body systems.
4. Correctly pronounce common structures, organs, and body systems.

SECTION 1: THE BODY AS A WHOLE AND THE INTEGUMENTARY SYSTEM

1. Introduction to course and overview of contents.
2. Body organization by systems.
3. Anatomical directions and body cavities.
4. Tissues, glands, and membranes.
5. Structure and function of the skin.
6. Hair and nails.

SECTION 2: THE GASTROINTESTINAL SYSTEM

1. Organs of the gastrointestinal tract.
2. Structure and function of the gastrointestinal tract.

SECTION 3: DIGESTION

The process of digestion.

SECTION 4: THE RESPIRATORY SYSTEM

1. Organs of the respiratory system.
2. Structure and function of the respiratory system.
3. The process of respiration.
4. Gas exchange and transport.

SECTION 5: THE CARDIOVASCULAR SYSTEM

1. Structure and function of the heart.
2. Electrical conduction of the heart; heart studies.
3. Blood, blood vessels and circulation.

SECTION 6: THE EARS, NOSE, THROAT, AND EYES

1. Structure and function of the ears.
2. Structure and function of the mouth and pharynx.
3. General and special senses.
4. Structure and function of the eyes.

SECTION 7: THE ENDOCRINE SYSTEM

1. Metabolism, nutrition, and body temperature.
2. Organs of the endocrine glands.
3. Structure and function of the endocrine glands.
4. Hormones.

SECTION 8: THE URINARY AND MALE REPRODUCTIVE SYSTEMS

1. Organs of the urinary system.
2. Structure and function of the urinary system.
3. Metabolic wastes.
4. The formation of urine.
5. Organs of the male reproductive system.
6. Structure and function of the male reproductive system.
7. Sexually transmitted diseases.

SECTION 9: THE FEMALE REPRODUCTIVE SYSTEM

1. Organs of the female reproductive system.
2. Structure and function of the female reproductive system.
3. The menstrual cycle.
4. Conception, pregnancy, and birth.
5. The breasts and lactation.
6. Contraception.

SECTION 10: THE SKELETAL SYSTEM

1. Structure of bone.
2. Bones of the body.

SECTION 11: THE MUSCULAR SYSTEM

1. Types of joints.
2. Types of muscles.
3. Muscles of the body.

SECTION 12: THE SPINAL CORD AND SPINAL NERVES

1. Organs of the nervous system.
2. Structure and function of the spinal cord and spinal nerves.

SECTION 13: THE BRAIN AND CRANIAL NERVES

1. Structure and function of the brain.
2. The cranial nerves.
3. Brain studies.

SECTION 14: THE LYMPHATIC SYSTEM AND IMMUNITY

1. Organs of the lymphatic system.
2. Structure and function of the lymphatic system.
3. Immunity.

SECTION 15: CELLS

Structure and function of cells.

Medical Terminology
Course Description

Course Description: An introduction to prefixes, suffixes, root words, combining forms, Latin and Greek forms, spelling, and pronunciation, with emphasis on building a working medical vocabulary in all the body systems and medical specialties, in laboratory medicine and imaging, and in pharmacology.

Recommended Prerequisites: None.

Recommended Course Length: 45 hours (3 hours per section).

Course Objectives

1. Spell and define common prefixes, suffixes, word roots, and combining forms for each body system.
2. Build medical words using prefixes, suffixes, and root words for each body system.
3. Spell and define common medical terms for each body system.
4. Pronounce common medical terms for each body system.
5. Identify and translate common abbreviations and acronyms for each body system.
6. Form the plurals of English, Latin, and Greek nouns for each body system.
7. Recognize and differentiate between Latin, Greek, and French medical words.
8. List examples of words whose spelling varies in different forms.
9. Describe the difference between brief forms and medical slang and give examples for each body system.

SECTION 1: THE BODY AS A WHOLE AND THE INTEGUMENTARY SYSTEM

1. Introduction to course and overview of contents.
2. Basic word structure.
3. Planes and anatomical positions.
4. Body cavities.
5. Structure of the skin.
6. Prefixes, suffixes, word roots, combining forms.
7. Pathology; surgical and laboratory procedures.
8. Abbreviations.
9. Vocabulary, spelling, and pronunciation.

SECTION 2: THE DIGESTIVE SYSTEM

1. Structures of the digestive tract.
2. Prefixes, suffixes, word roots, combining forms.
3. Pathology; surgical, x-ray, and laboratory procedures.
4. Abbreviations.
5. Vocabulary, spelling, and pronunciation.

SECTION 3: ADDITIONAL SUFFIXES AND PREFIXES

1. Common suffixes.
2. Common prefixes.
3. Medical word formation.

SECTION 4: THE RESPIRATORY SYSTEM

1. Structure of the respiratory system
2. Prefixes, suffixes, word roots, combining forms.
3. Pathology; surgical, x-ray, and laboratory procedures.
4. Abbreviations.
5. Vocabulary, spelling, and pronunciation.

SECTION 5: THE CARDIOVASCULAR SYSTEM

1. Structure of the heart.
2. Blood and circulation.
3. Prefixes, suffixes, word roots, combining forms.
4. Pathology; surgical, x-ray, and laboratory procedures.
5. Abbreviations.
6. Vocabulary, spelling, and pronunciation.

SECTION 6: THE SENSE ORGANS

1. Structure of the ears and eyes.
2. Prefixes, suffixes, word roots, combining forms.
3. Pathology; surgical, x-ray, and laboratory procedures.
4. Abbreviations.
5. Vocabulary, spelling, and pronunciation.

SECTION 7: THE ENDOCRINE SYSTEM

1. Glands of the endocrine system.
2. Prefixes, suffixes, word roots, combining forms.
3. Pathology; surgical, x-ray, and laboratory procedures.
4. Abbreviations.
5. Vocabulary, spelling, and pronunciation.

SECTION 8: THE URINARY AND MALE REPRODUCTIVE SYSTEMS

1. Structures of the urinary tract.
2. Structures of the male reproductive tract.
3. Prefixes, suffixes, word roots, combining forms.
4. Pathology; surgical, x-ray, and laboratory procedures.
5. Abbreviations.
6. Vocabulary, spelling, and pronunciation.

SECTION 9: THE FEMALE REPRODUCTIVE SYSTEM

1. Structure of the female reproductive tract.
2. The breasts.
3. Menstruation, pregnancy, and birth.
4. Prefixes, suffixes, word roots, combining forms.
5. Pathology; surgical, x-ray, and laboratory procedures.
6. Abbreviations.
7. Vocabulary, spelling, and pronunciation.

SECTION 10: THE MUSCULOSKELETAL SYSTEM: BONES

1. Types of bones.
2. Prefixes, suffixes, word roots, combining forms.
3. Pathology; surgical, x-ray, and laboratory procedures.
4. Abbreviations.
5. Vocabulary, spelling, and pronunciation.

SECTION 11: THE MUSCULOSKELETAL SYSTEM: JOINTS AND MUSCLES

1. Types of joints and muscles.
2. Prefixes, suffixes, word roots, combining forms.
3. Pathology; surgical, x-ray, and laboratory procedures.
4. Abbreviations.
5. Vocabulary, spelling, and pronunciation.

SECTION 12: THE NERVOUS SYSTEM

1. Structures of the brain and spinal cord.
2. Prefixes, suffixes, word roots, combining forms.
3. Pathology; surgical, x-ray, and laboratory procedures.
4. Abbreviations.
5. Vocabulary, spelling, and pronunciation.

SECTION 13: PSYCHIATRY

1. Psychiatric symptoms and disorders.
2. Prefixes, suffixes, word roots, combining forms.
3. Pathology; surgical, x-ray, and laboratory procedures.
4. Abbreviations.
5. Vocabulary, spelling, and pronunciation.

SECTION 14: THE LYMPHATIC AND IMMUNE SYSTEMS

1. Structure of the lymphatic system.
2. Immunity.
3. Prefixes, suffixes, word roots, combining forms.
4. Abbreviations.
5. Vocabulary, spelling, and pronunciation.

SECTION 15: ONCOLOGY AND RADIOLOGY

1. Tumor characteristics and classifications.
2. Treatment options; radiation therapy and chemotherapy.
3. Radiologic procedures; diagnostic and therapeutic techniques.
4. X-ray positioning.
5. Prefixes, suffixes, word roots, combining forms.
6. Abbreviations.
7. Vocabulary, spelling, and pronunciation.

Medical Science
Course Description

Course Description: Content and terminology used under each of the main headings within a history and physical examination report. An in-depth study of the history and physical examination. Understanding interrelationships and medical cause and effect in anatomy and physiology, medical terminology, pharmacology, and laboratory procedures as demonstrated through exercises based on actual medical reports.

Recommended Prerequisites: Concurrent enrollment or prior completion of Anatomy and Physiology and Medical Terminology.

Recommended Course Length: 15 hours (1 hour per section).

Course Objectives

1. Describe the purpose and general content under each of the main headings within the history and physical examination report.
2. Demonstrate editing techniques by identifying and correcting medical spelling errors and wrong words as well as medical inconsistencies within a report.

SECTION 1

1. Introduction to course and overview of contents.
2. Physical diagnosis.
3. Introduction to the history and physical.
4. Review of systems: skin.
5. Examination of the skin.

SECTION 2

1. Chief complaint and history of present illness.
2. Family history.
3. Social history.
4. Habits.
5. Review of systems: gastrointestinal.
6. Examination of abdomen and groin.

SECTION 3

1. Past medical history.
2. Overview of physical examination.
3. Vital signs.
4. General appearance.

SECTION 4

1. Review of systems: respiratory.
2. Examination of the thorax.
3. Examination of the lungs.

SECTION 5

1. Review of systems: cardiovascular.
2. Examination of the heart.

SECTION 6

1. Review of systems: head, eyes, ears, nose, throat, mouth, and teeth.
2. Examination of the head, face, and neck.

SECTION 7

The pediatric history and physical.

SECTION 8

1. Review of systems: genitourinary.
2. Examination of the male genitalia and prostate.

SECTION 9

1. Examination of the external female genitalia.
2. Pelvic examination.

SECTION 10

Review of systems: neuromuscular.

SECTION 11

Examination of the back and extremities.

SECTION 12

Neurological examination.

SECTION 13

1. Review of systems: psychiatric.
2. Mental status examination.

SECTION 14

Diagnostic formulations.

SECTION 15

Glossary of terms.

Human Diseases *or* Disease Processes
Course Description

Course Description: A comprehensive study of disease processes (causes, symptoms, diagnosis, and treatments), organized by body systems.

Recommended Prerequisites/Concurrent Courses: Anatomy and Physiology, Medical Terminology.

Recommended Course Length: 45 hours (3 hours per section).

Course Objectives

1. Describe how diseases are named and classified.
2. Identify common genetic disorders.
3. List common infectious diseases.
4. Define *immunity* and identify common immunological diseases.
5. Define *neoplasia* and differentiate between *malignant* and *benign*.
6. Identify common traumatic injuries.
7. Identify common diseases for each body system.
8. Pronounce and spell common disease names.
9. Define common abbreviations for symptoms and disease processes for each body system.

SECTION 1: THE NATURE OF DISEASE; DISEASES OF THE SKIN

1. Introduction to course and overview of contents.
2. The nature of disease; how diseases are named.
3. Common disease terms.
4. Anatomy and physiology of the skin.
5. Signs, symptoms, and diagnostic procedures of the skin.
6. Diseases and disorders of the skin.

SECTION 2: GASTROINTESTINAL DISEASES

1. Anatomy and physiology of the digestive system.
2. Signs, symptoms, and diagnostic procedures of the gastrointestinal system.
3. Diseases and disorders of the digestive system.

SECTION 3: TRAUMA AND POISONING

1. Types of trauma.
2. Poisoning.

SECTION 4: DISEASES OF THE RESPIRATORY SYSTEM

1. Anatomy and physiology of the respiratory system.
2. Signs, symptoms, and diagnostic procedures in respiratory diseases.
3. Diseases and disorders of the respiratory system.

SECTION 5: DISEASES OF THE CARDIOVASCULAR SYSTEM; DISORDERS OF BLOOD CELLS AND COAGULATION

1. Anatomy and physiology of the cardiovascular system and blood.
2. Signs, symptoms, and diagnostic procedures of the cardiovascular system.
3. Diseases and disorders of the cardiovascular system.
4. Disorders of blood cells, blood-forming tissues, and coagulation.
5. Diagnostic procedures in hematologic disease.

SECTION 6: DISEASES OF THE EARS, NOSE, THROAT, AND EYES

1. Anatomy and physiology of the ears, nose, throat, and eyes.
2. Signs, symptoms, and diagnostic procedures of the ears, nose, throat, and eyes.
3. Diseases and disorders of the ears, nose, throat, and eyes.

SECTION 7: GENETIC DISORDERS; DISORDERS OF METABOLISM, NUTRITION, AND ENDOCRINE FUNCTION

1. Disease features and procedures diagnostic for hereditary diseases, disorders, and chromosomal abnormalities.
2. Anatomy and physiology of the endocrine glands.
3. Physiology of metabolism and nutrition.
4. Disorders of the principal endocrine glands: pituitary, thyroid, parathyroid, adrenal.
5. Disorders of the pancreas.

SECTION 8: DISEASES OF THE EXCRETORY AND MALE REPRODUCTIVE SYSTEMS; SEXUALLY TRANSMITTED DISEASES

1. Anatomy and physiology of the excretory system and male reproductive system.
2. Signs, symptoms, and diagnostic procedures of the genitourinary system.
3. Diseases and disorders of the male reproductive system and excretory system.
4. Sexually transmitted diseases.

SECTION 9: THE FEMALE REPRODUCTIVE SYSTEM; BREAST DISEASES

1. Anatomy and physiology of the female reproductive system and breasts.
2. Signs, symptoms, and diagnostic procedures of the female reproductive system and breasts.
3. Diseases and disorders of the female reproductive system and breasts.
4. Pregnancy and childbirth.

SECTION 10: MUSCULOSKELETAL DISORDERS

1. Anatomy and physiology of the musculoskeletal system.
2. Signs, symptoms, and diagnostic procedures of the musculoskeletal system.
3. Diseases and disorders of the musculoskeletal system.

SECTION 11: INFECTIOUS DISEASES

1. The concepts of infection and immunity.
2. Transmission of infectious diseases.
3. Infecting organisms.
4. Diagnosis and treatment of infectious diseases.

SECTION 12: DISEASES OF THE NERVOUS SYSTEM

1. Anatomy and physiology of the nervous system.
2. Signs, symptoms, and diagnostic procedures of the nervous system.
3. Diseases and disorders of the nervous system.

SECTION 13: PSYCHIATRIC DISORDERS

Mental disorders and psychiatric illness.

SECTION 14: THE IMMUNE SYSTEM

1. Function of the immune system.
2. Immunodeficiency, autoimmunity, and allergies.
3. Signs, symptoms, and diagnostic procedures of the immune system.
4. Diseases and disorders of the immune system.

SECTION 15: NEOPLASIA

1. The nature of neoplasia.
2. Common cancers and warning signs.
3. Diagnosis and treatment of malignancy.

Pharmacology
Course Description

Course Description: An introduction to the principles of pharmacology and a comprehensive study of drug action, routes of administration, classes of drugs by body system, as well as antibiotics, antiviral drugs, IV fluids, blood products, anesthetics, emergency drugs, vaccines and immunizations, and chemotherapy agents.

Recommended Prerequisites: None.

Recommended Course Length: 45 hours (3 hours per section).

Course Objectives

1. Describe the pharmacologic action of common drugs within all major drug categories by body system.
2. Identify the trade names of common generic drugs.
3. Identify several important drugs within a given category.
4. Identify the drug category to which a common drug belongs, when given its generic or trade name.
5. Pronounce and spell common generic or trade name drugs within a given drug category.
6. List five forms in which drugs are manufactured.
7. List six routes of drug administration and give one advantage and disadvantage for each route.
8. List the four steps of the drug cycle and explain how a drug is changed or affected during each step.
9. Describe the difference between local, systemic, therapeutic, allergic, and side effects of drugs.
10. Demonstrate the proper use of drug reference materials.
11. Define common drug abbreviations, including units of measurement.
12. Describe a receptor and its role in drug action.
13. Describe a neurotransmitter and its function.

SECTION 1:

1. Introduction to course and overview of course contents.
2. History of drugs.
3. Drug legislation.
4. Drug terminology.
5. Dermatologic drugs.
6. Antifungal drugs.

SECTION 2

1. Gastrointestinal drugs.
2. Antidiabetic drugs.

SECTION 3

1. Drug design and testing.
2. Drug names (chemical, generic, trade) and marketing.
3. Drug sources.
4. Drug categories.
5. Drug forms and routes of administration.
6. Systems of measurement.

SECTION 4

1. Pulmonary drugs.
2. Emergency drugs.
3. Anticoagulants.

SECTION 5

1. Cardiovascular drugs.
2. IV fluids and blood products.

SECTION 6

1. Ears, nose, and throat drugs.
2. Ophthalmic drugs.

SECTION 7

1. Endocrine drugs.
2. Anti-infective drugs.

SECTION 8

1. Urinary tract drugs.
2. Steps in the drug cycle.

SECTION 9

1. Obstetrical drugs.
2. Gynecological drugs.

SECTION 10

Musculoskeletal drugs.

SECTION 11

Analgesic drugs.

SECTION 12

1. Neurological drugs.
2. Anesthetics.

SECTION 13

Psychiatric drugs.

SECTION 14

1. Drug effects.
2. AIDS drugs and antivirals.

SECTION 15

Chemotherapy drugs.

Laboratory Tests and Diagnostic Procedures in Medicine I
Course Description

Course Description: An introduction to six principal types of diagnostic procedure: physical measurements, electrodiagnostics, endoscopy, medical imaging, and clinical pathology. For each test or procedure, methodology, indications or purposes, and range of results is covered to enable the student to recognize pertinent terminology and to grasp the general sense of a report.

Recommended Prerequisites: None.

Recommended Course Length: 30 hours (2 hours per section).

Course Objectives:

1. Describe the process of medical diagnosis and explain the role of laboratory tests and diagnostic procedures.
2. Explain units and standards of measurement.
3. Explain some ways by which the concept of normal is defined.
4. Distinguish diagnostic from screening tests and sensitivity from specificity.
5. List and define various forms of physical measurements, including body fat measurements, goniometry, strength testing, and pelvimetry.
6. Explain procedures for measuring visual field and acuity.
7. Discuss audiometry and its interpretation.
8. Describe the balance system and explain how it is tested.
9. Classify and define various tests that measure temperature, respiration, and pressure, including ocular tonometry, gastrointestinal manometry, invasive and noninvasive measurements of pressure in the cardiovascular system, spirometry, and plethysmography.
10. Explain the basic principles and diagnostic uses of electroencephalography, polysomnography, electroretinography, electrooculography, electromyography, and nerve conduction studies.
11. Explain the basic principles and diagnostic uses of electrocardiography, ambulatory electrocardiography, stress testing, and pulse oximetry.
12. Describe the instruments and methods used to endoscopically examine the eyes, ears, nose, and upper and lower respiratory tract.
13. Explain the basic principles and diagnostic uses of endoscopic procedures of the upper and lower gastrointestinal tract, the genitourinary tract, and the female reproductive system.
14. Discuss the basic principles, diagnostic value, limitations, and importance of plain radiographic procedures, including standard PA chest x-ray, plain x-rays of the abdomen and extremities, mammography, and bone densitometry.
15. Discuss blood coagulation abnormalities and laboratory studies used in their diagnosis.
16. Explain blood groups and their significance.
17. Discuss the role of electrolytes, minerals, and blood gases in health and disease.

18. Explain the diagnostic application of various tests for enzymes, hormones, proteins, lipids, and glucose in circulating blood.
19. List and explain the significance of tests for tumor markers and waste products.
20. Describe laboratory procedures in microbiology, the use of stains in diagnosis, and the use of smears and cultures, and explain the clinical application of these procedures in diagnosis and management of disease.
21. Explain the uses and discuss the applications of serologic testing in infection and autoimmune disease and how skin testing is used in infectious disease and allergy.
22. Describe basic procedures in molecular biology, explain the basic principles of genetics, and list and discuss tests for genetic abnormalities.
23. List and describe basic laboratory tests of urine, stool, and other body fluids, and discuss the diagnostic applications of these tests.

SECTION 1: CHAPTERS 1 & 2, PHYSICAL MEASUREMENTS, ANTHROPOMETRY MUSCULOSKELETAL MEASUREMENTS AND CLINICAL PELVIMETRY

1. General introduction to medical diagnosis and the role of laboratory tests and diagnostic procedures, units and standards of measurement, the concept of normal, and the difference between diagnostic and screening tests.
2. Body fat measurements, goniometry, strength testing, and pelvimetry.

SECTION 2: CHAPTER 4, INTRODUCTION TO TEMPERATURES, RATES, AND PRESSURES

1. Measures of temperature.
2. Measures of respiration.
3. Measures of pressure, including ocular tonometry, gastrointestinal manometry.
4. Invasive and noninvasive measurements of pressure in the cardiovascular system.
5. Spirometry, and plethysmography.

SECTION 3: CHAPTER 8, DIGESTIVE TRACT AND GENITOURINARY SYSTEM

1. Endoscopic procedures of the upper and lower gastrointestinal tract.
2. Endoscopic procedures of the genitourinary system.
3. Endoscopic procedures of the female reproductive system.

SECTION 4: CHAPTER 11, CONTRAST RADIOGRAPHY

1. Encephalography (ventriculography) and myelography.
2. Bronchography.
3. Barium swallow, upper GI series, small bowel follow-through, and barium enema.
4. Cholecystography and endoscopic retrograde cholangiopancreatography.
5. Intravenous pyelogram, retrograde pyelography, and voiding cystourethrogram.
6. Hysterosalpingography.

7. Angiography including cerebral angiography, coronary angiography, aortography, renal angiography, peripheral angiography, venography, and lymphangiography.
8. Arthrography.
9. Dacryocystography, galactography, fistulography.

SECTION 5: CHAPTER 6, ELECTROCARDIOLOGY

1. Electrocardiography.
2. Ambulatory electrocardiography.
3. Stress testing.
4. Pulse oximetry.

SECTION 6: CHAPTER 3, MEASUREMENT OF VISION AND HEARING

1. Visual field testing.
2. Visual acuity testing.
3. Audiometry.
4. Tests for balance.

SECTION 7: CHAPTER 7, VISUAL EXAM OF THE EYES, EARS, NOSE AND THROAT

1. Ophthalmoscopy and slit lamp examination.
2. Otoscopy.
3. Endoscopic examination of the upper and lower respiratory tracts.

SECTION 8: CHAPTER 24, URINE, STOOL, AND OTHER BODY FLUIDS

1. Tests of urine.
2. Tests of stool.
3. Tests of other body fluids.

SECTION 9: CHAPTER 21, MICROBIOLOGY

1. Laboratory procedures in microbiology.
2. Use of stains.
3. Use of cultures and smears.

SECTION 10: CHAPTER 23, MOLECULAR BIOLOGY

1. Molecular biology procedures.
2. Basics of genetics.
3. Tests for genetic abnormalities.

SECTION 11: CHAPTER 10, PLAIN RADIOGRAPHY

1. Standard PA chest x-ray.
2. Plain x-rays of abdomen and extremities.
3. Mammography.
4. Bone densitometry.

SECTION 12: CHAPTER 5, ELECTRODIAGNOSTIC STUDIES

1. Electroencephalography.
2. Polysomnography.
3. Electroretinography and electrooculography.
4. Electromyography.
5. Nerve conduction studies.

SECTION 13: CHAPTER 19, INTRODUCTION TO LABORATORY STUDIES ON THE BLOOD

1. Formed elements of the blood.
2. Coagulation abnormalities and studies.
3. Blood groups and typing.

SECTION 14: CHAPTER 20, BLOOD CHEMISTRY

1. Tests for enzymes, hormones, proteins, lipids, and glucose.
2. Tests for tumor markers and waste products.

SECTION 15: CHAPTER 22, IMMUNOLOGY

1. Serologic testing in autoimmune and infectious disease.
2. Skin testing in infectious disease and allergy.

Beginning Medical Transcription Practice/Professional Issues Course Description

Course Description: Transcription of authentic physician-dictated reports organized by body systems. Emphasis on development of accuracy, speed, and medical knowledge for transcription of nonsurgical medical dictation: letters, chart notes, history and physical examination reports, consultations, emergency room reports, and discharge summaries. Using reference materials and other resources efficiently. Editing and proofreading techniques. Understanding professional issues in medical transcription. Grammar and punctuation review.

Recommended Prerequisites: Minimum typing speed of 50 corrected words per minute; college-level proficiency in spelling, English grammar, and usage. Concurrent enrollment in or prior completion of courses in Medical Terminology and Anatomy and Physiology.

Recommended Course Length: 240 hours (16 hours per section).

Course Objectives

1. Select the correct format for a dictated medical report.
2. Demonstrate the proper use of reference materials.
3. Transcribe letters, consultations, chart notes, history and physical reports, and discharge summaries.
4. Edit the transcript to correct obvious grammatical and punctuation errors.
5. Identify obvious medical inconsistencies.
6. Produce a final, neat, error-free transcript.
7. Increase transcription speed and productivity throughout the course.
8. Explain quantity versus quality in medical transcription.
9. Identify various methods of compensation.
10. Describe what is meant by patient confidentiality and give several examples of proper and improper use of patient medical information.
11. Describe the various environments where transcription is performed and list the pros and cons of each.
12. Explain risk management and the transcriptionist's role.
13. Define *practicum*; define *externship*.
14. Identify ways in which the medical transcriptionist can reduce work-related injuries.
15. Describe the desirable qualities in MTs that are valued by employers.
16. Prepare an appropriate resumé.

SECTION 1

1. Introduction of course and overview of contents.
2. The modern healthcare team.
3. Technology and tools of the trade.
4. The patient health record.
5. Medical transcription practice: integumentary system.

SECTION 2

1. The patient health record.
2. Dictated medical reports.
3. Gastrointestinal system review.
4. Medical transcription practice: gastrointestinal.

SECTION 3

1. The chart note.
2. Grammar review: spelling rules, parts of speech, subjects and predicates, types of sentences.
3. Terminology review: suffixes, prefixes, plurals, abbreviations, slang, units of measure.
4. Medical transcription practice: gastrointestinal.

SECTION 4

1. The history and physical examination.
2. Pulmonary system review.
3. Medical transcription practice: pulmonary.

SECTION 5

1. Surgery and the operative report.
2. Cardiovascular system review.
3. Medical transcription practice: cardiovascular.

SECTION 6

1. Reference books.
2. Word research techniques.
3. Eyes, ears, nose, and throat review.
4. Medical transcription practice: ears/nose/throat and ophthalmology.

SECTION 7

1. Flagging medical documents.
2. Proofreading and editing.
3. Endocrine system review.
4. Medical transcription practice: pediatrics.

SECTION 8

1. Quality assurance.
2. Transcribing for the ESL dictator.
3. Genitourinary system review.
4. Medical transcription practice: genitourinary.

SECTION 9

1. Patient confidentiality.
2. Female reproductive system review.
3. Medical transcription practice: obstetrics and gynecology.

SECTION 10

1. Risk management.
2. Musculoskeletal system review.
3. Medical transcription practice: orthopedics.

SECTION 11

1. Work environments.
2. Working at home.
3. Grammar and punctuation review: Verb tense, subject-verb agreement, common errors, commas.
4. Medical transcription practice: orthopedics.

SECTION 12

1. Practicums/externships.
2. Resumé preparation.
3. Nervous system review.
4. Medical transcription practice: neuropsychiatric.

SECTION 13

1. Desirable employee characteristics.
2. Job searching.
3. Productivity.
4. Punctuation review: semicolons, hyphens.
5. Medical transcription practice: neuropsychiatric.

SECTION 14

1. Compensation.
2. Avoiding work-related injuries.
3. Immune system review.
4. Medical transcription practice: hematology, oncology, immunology.

SECTION 15

1. Your professional image.
2. Networking.
3. Punctuation review: colons, apostrophes, periods, question marks, exclamation points, dashes, parentheses, brackets, slashes, ellipses.
4. Radiology and pathology review.
5. Medical transcription practice: hematology, oncology, immunology.

Assignments for SUM Program Beginning Medical Transcription, 2nd edition

COURSE AND TEXTBOOKS *(For each textbook, read the chapters indicated and complete related exercises)*	**Anatomy & Physiology** ***Memmler's The Structure & Function of the Human Body (SFHB)***	**Medical Terminology** ***The Language of Medicine (LOM)*** or ***Medical Language: Immerse Yourself, Turley (TML)***	**Medical Science** ***H&P: A Nonphysician's Guide to the Medical History & Physical Examination (H&P).***	**Human Diseases *or* Disease Processes** ***Human Diseases (HD).***	**Pharmacology** ***Understanding Pharmacology (UP).***	**Laboratory Medicine I** ***Laboratory Tests & Diagnostic Procedures in Medicine (LTDP)***	**Professional Issues & Review** ***The Medical Transcription Workbook (MTWB).*** **BMT2 Practice**
SECTION 1 Introduction, Dermatology/ Plastics	***SFHB*** Unit 1, Body as a Whole, Ch. 1, Organization of the Human Body; Ch. 4, Tissues, Glands, etc., Ch. 5, Integumentary System.	***LOM*** Ch. 1, Basic Word Structure; Ch. 2, Terms Pertaining to the Body as a Whole; Ch. 16, Skin. ***TML*** Part 1, Ch. 1, Structure of Medical Language; Ch. 2, Body in Health & Disease; Ch. 7, Dermatology, Integumentary System	***H&P*** Introduction and Ch. 1; Ch. 14, Review of Systems: Skin; Ch. 17, Examination of the Skin.	***HD*** Ch. 1, Nature of Disease and Diagnostic Process; Ch. 7, Diseases of the Skin.	***UP*** Chs. 1-3 (Intro., History, Legislation); Ch. 8, Drug Terminology; Ch. 11, Dermatologic Drugs; Ch. 29, Antifungal Drugs.	***LTDP*** Ch. 1, General Introduction, and Ch. 2, Anthropometry, etc.	***MTWB*** Complete worksheets in Section 2A and Section 1, Abbreviations through Apostrophe. Complete Integumentary System Worksheets in Section 2B. **BMT2 Practice** Transcribe Dermatology-Plastics reports.

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SECTION 2 Gastrointestinal	***SFHB*** Ch. 17, Digestion	***LOM*** Ch. 3, Suffixes; Ch. 5, Digestive System. ***TML*** Ch. 3, Gastroenterology (A&P, Vocab Review; Signs, Symptoms, Diseases)	***H&P*** Ch. 2, Chief Complaint & HPI, Ch. 3, Family History, Ch. 4, Social History, Ch. 5, Habits; Ch. 10, ROS: GI; Ch. 25, Examination of Abdomen & Groin (GI only).	***HD*** Ch. 11, Diseases of the Digestive System.	***UP*** Ch. 13, Gastrointestinal Drugs; Ch. 22, Antidiabetic Drugs.	***LTDP*** Ch. 4, Measurement of Temperature, Rates, Pressures and Volumes	***MTWB*** Read & complete Worksheets Section 3, The MT Professional through Confidentiality & Section 1 Articles through Commas. Stop at Contractions. Complete GI System Worksheets in Section 2C. **BMT2 Practice** Transcribe GI reports #1-11.
SECTION 3 Gastrointestinal		***LOM*** Ch. 4, Prefixes; Ch. 6, Additional Suffixes and Digestive System. ***TML*** Ch. 3, Gastroenterology (Diagnostics, Procedures, Drugs, Abbrevs).	***H&P*** Ch. 6, Past Medical History: General; Ch. 15, General Remarks on the Physical Exam; Ch. 16, General Appearance.	***HD*** Ch. 6, Trauma & Poisoning.	***UP*** Ch. 4, Drug Design; Ch. 5, Drug Forms and Routes of Administration; and Ch. 9, Systems of Measurement.	***LTDP*** Ch. 8, Examination of Digestive Tract and Genitourinary System.	***MTWB*** Read & complete Worksheets Sec 3, Dictated Medical Reports: Dictation & Transcription through Risk Management (Stop @ Proofreading) & Section 1, Contractions through Hyphens. **BMT2 Practice** Transcribe GI reports #12-20.

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SECTION 4 Cardiopulmonary	***SFHB*** Ch. 13, The Heart; Unit V, Energy Supply & Use; Ch. 16, Respiration.	***LOM*** Ch. 12, Respiratory System. ***TML*** Ch. 4, Pulmonary/ Respiratory	***H&P*** Ch. 9, ROS: Respiratory; Ch. 22, Exam of Thorax, Breasts and Axilla; Ch. 24, Exam of Lungs.	***HD*** Ch. 10, Diseases of the Respiratory System.	***UP*** Ch. 16, Emergency Drugs; Ch. 17, Anticoagulant and Thrombolytic Drugs; Ch. 18, Pulmonary Drugs.	***LTDP*** Ch. 11, Contrast Radiography.	***MTWB***. Read & complete Work–sheets Section 3, Transcription Practices: Proofreading & Editing through Com. pensation. Complete Respiratory System Worksheets in Sections 2C. **BMT2 Practice** Transcribe CP reports #1-14.
SECTION 5 Cardiopulmonary	***SFHB*** Ch. 12, Blood; Ch. 14, Blood Vessels & Circulation.	***LOM*** Ch. 11, Cardiovascular System; Ch. 13, Blood System. ***TML*** Ch. 5, Cardiovascular System.	***H&P*** Ch. 8, ROS: Cardiovascular; Ch. 23, Examination of Heart.	***HD*** Ch. 8, Diseases of the Cardiovascular System; Ch. 16, Disorders of Blood Cells, etc.	***UP*** Ch. 15, Cardiovascular Drugs; Ch. 32, Intravenous Fluids and Blood Products.	***LTDP*** Ch. 6, Electrocardiography.	***MTWB*** Section 1 Numbers through Question Marks. Complete Cardiovascular System Worksheets in Sections 2C. **BMT2 Practice** Transcribe CP reports #15-25.

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SECTION 6 ENT/Ophthalmology	***SFHB*** Ch. 10, The Sensory System.	***LOM*** Ch. 17, Sense Organs: The Eye and the Ear. ***TML*** Ch. 15, Ophthalmology; Ch. 16, Otolaryngology, ENT	***H&P*** Ch. 7, ROS: HEENT; Ch. 18, Exam of Head, Face, and Neck.	***HD*** Ch. 9, Diseases of the Ear, Nose and Throat; Ch. 18, Diseases of the Eye.	***UP*** Ch. 19, ENT Drugs; Ch. 20, Ophthalmic Drugs.	***LTDP*** Ch. 3, Vision and Hearing.	***MTWB*** Read & complete worksheets in Sec. 3, Electronic Resources. Complete Otorhinolaryngology and Ophthalmology worksheets in Section 2E. **BMT2 Practice** Transcribe HEENT reports.
SECTION 7 Pediatrics	***SFHB*** Ch. 11, Endocrine System, Glands and Hormones; Ch. 18, Metabolism, Nutrition and Body Temperature.	***LOM*** Ch. 18, Endocrine System. ***TML*** Ch. 14, Endocrine System	***H&P*** Ch. 29, Pediatric H&P.	***HD*** Ch. 2, Genetic Disorders; Ch. 15, Disorders of Metabolism, Nutrition and Endocrine Function.	***UP*** Ch. 21, Endocrine Drugs; Ch. 27, Anti-Infective Drugs.	***LTDP*** Section III, Endoscopy. Ch. 7, Visual Examination of the Eyes, Ears, Nose, and Respiratory Tract.	***MTWB*** Read & complete worksheets in Sec. 3, Health in the Workplace. **BMT2 Practice** Transcribe Pediatrics reports.

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SECTION 8 Genitourinary/ Male Reproductive	***SFHB*** Ch. 19, The Urinary System and Body Fluids; Ch. 20, Male Reproductive System.	***LOM*** Ch. 7, Urinary System; Ch. 9, Male Reproductive System. ***TML*** Ch. 11, Urology; Ch 12, Male Reproductive	***H&P*** Ch. 11, ROS: GU; Ch. 25, Exam of Genitalia (GU and Male Repro only)	***HD*** Ch. 12, The Excretory System, Male Reproductive and STDs.	***UP*** Ch. 6, Steps in Drug Cycle; Ch. 12, Urinary Tract Drugs.	***LTDP*** Ch. 24, Urine, Stool, and Other Fluids and Materials	***MTWB*** Read & complete worksheets in Section 3, Professionalism at Its Best. Complete worksheets on Urinary system and Male Reproductive System in Section 2G. **BMT2 Practice** Transcribe GU reports.
SECTION 9 Obstetrics/ Gynecology Female Reproductive	***SFHB*** Ch. 20, Female Reproductive System; Ch. 21, Development and Heredity.	***LOM*** Ch. 8, Female Reproductive System. ***TML*** Ch. 13, Gynecology and Obstetrics; Female Reproductive	***H&P*** Ch. 25, Exam of Genitalia (Female Repro only)	***HD*** Ch. 13, Diseases of the Female Reproductive System; Ch. 14, Pregnancy and Childbirth.	***UP*** Ch. 23, Obstetric & Gynecologic Drugs.	***LTDP*** Ch. 21, Microbiology.	***MTWB*** Complete worksheets on Obstetrics & Gynecology in Section 2H. **BMT2 Practice** Transcribe OB/GYN reports.

Assignments for SUM Program Beginning Medical Transcription, 2nd edition

COURSE AND TEXTBOOKS *(For each textbook, read the chapters indicated and complete related exercises)*	**Anatomy & Physiology** ***Memmler's The Structure & Function of the Human Body (SFHB)***	**Medical Terminology** ***The Language of Medicine (LOM)*** or ***Medical Language: Immerse Yourself, Turley (TML)***	**Medical Science** ***H&P: A Nonphysician's Guide to the Medical History & Physical Examination (H&P).***	**Human Diseases *or* Disease Processes** ***Human Diseases (HD).***	**Pharmacology** ***Understanding Pharmacology (UP).***	**Laboratory Medicine I** ***Laboratory Tests & Diagnostic Procedures in Medicine (LTDP)***	**Professional Issues & Review** ***The Medical Transcription Workbook (MTWB).*** **BMT2 Practice**
SECTION 10 Orthopedics	***SFHB*** Ch. 6, Skeleton, Bones & Joints (and related exercises).	***LOM*** Ch. 15, Musculo-skeletal System (Bones and Joints and related exercises). ***TML*** Ch. 8, Orthopedics: Skeletal.	***H&P*** Ch. 12, ROS: Neuromuscular.	***HD*** Ch. 17, Musculo-skeletal Disorders	***UP*** Ch. 14, Musculo-skeletal Drugs.	***LTDP*** Ch. 23, Molecular Biology.	***MTWB*** Complete work–sheets on the Musculoskeletal System in Section 2J. **BMT2 Practice** Transcribe Orthopedics reports #1-22.
SECTION 11 Orthopedics	***SFHB*** Ch.7, The Muscular System (and related exercises).	***LOM*** Ch 15, Muscles & related exercises. ***TML*** Ch. 9, Orthopedics: Muscular	***H&P*** Ch. 26, Exam of Back and Extremities.	***HD*** Ch. 3, Infectious Diseases.	***UP*** Ch. 26, Analgesic Drugs.	***LTDP*** Section IV, Medical Imaging; Ch. 10, Plain Radiography.	***MTWB*** Read & complete worksheets in Section 1, Quotation Marks to end of section. **BMT2 Practice** Transcribe Orthopedics reports #23-30.
SECTION 12 Neuropsychiatric	***SFHB*** Ch. 8, Nervous System: Spinal Cord and Nerves.	***LOM*** Ch. 10, Nervous System. ***TML*** Ch. 10, Nervous System	***H&P*** Ch. 27, Neurologic Exam.	***HD*** Ch. 19, Diseases of the Nervous System.	***UP*** Ch. 24, Neurological Drugs; Ch. 31, Anesthetics.	***LTDP*** Section II, Electrodiagnostics. Ch. 5, EEG, EMG, and Related Tests.	***MTWB*** Complete worksheets on Neurology in Section 2J. **BMT2 Practice** Transcribe Neuropsychiatric reports #1-12.

Assignments for SUM Program Beginning Medical Transcription, 2nd edition

COURSE AND TEXTBOOKS *(For each textbook, read the chapters indicated and complete related exercises)*	**Anatomy & Physiology** ***Memmler's The Structure & Function of the Human Body (SFHB)***	**Medical Terminology** ***The Language of Medicine (LOM)*** or ***Medical Language: Immerse Yourself, Turley (TML)***	**Medical Science** ***H&P: A Nonphysician's Guide to the Medical History & Physical Examination (H&P).***	**Human Diseases *or* Disease Processes** ***Human Diseases (HD).***	**Pharmacology** ***Understanding Pharmacology (UP).***	**Laboratory Medicine I** ***Laboratory Tests & Diagnostic Procedures in Medicine (LTDP)***	**Professional Issues & Review** ***The Medical Transcription Workbook (MTWB).*** **BMT2 Practice**
SECTION 13 Neuropsychiatric	***SFHB*** Ch. 9, Nervous System: Brain and Cranial Nerves.	***LOM*** Ch 22, Psychiatry. ***TML*** Ch. 17, Psychiatry	***H&P*** Ch. 13, ROS: Psychiatric; Ch. 28, Formal Mental Status Exam.	***HD*** Ch. 20, Mental Disorders.	***UP*** Ch. 25, Psychiatric Drugs	***LTDP*** Section VI, Clinical Pathology. Ch. 19, Hematology, etc.	***MTWB*** Complete worksheets on Psychiatric Terms & Abbreviations Section 2J. **BMT2 Practice** Transcribe Neuropsychiatric reports #13-21.
SECTION 14 Hematology/ Oncology/ Immunology	***SFHB*** Ch. 15, Lymphatic System and Body Defenses.	***LOM*** Ch. 13, Blood System; Ch. 14, Lymphatic and Immune System. ***TML*** Ch. 6, Hematology, Immunology; Blood and Lymphatic.	***H&P*** Ch. 30, Diagnostic Formulations.	***HD*** Ch. 4, The Immune System.	***UP*** Ch. 7, Drug Effects; Ch. 28, AIDS and Antiviral Drugs.	***LTDP*** Ch. 20, Blood Chemistry.	***MTWB*** Complete worksheets on the Immune System, Genetics & Oncology in Section 2F. **BMT2 Practice** Transcribe Hematology-Oncology-Immunology Reports #1-10.
SECTION 15 Hematology/ Oncology/ Immunology	***SFHB*** Ch. 3, Cells and Their Functions.	***LOM*** Ch. 19, Oncology; Ch. 20, Radiology and Nuclear Medicine. ***TML*** Ch. 18, Oncology; Ch. 19, Radiology and Nuclear Medicine.	***H&P*** Review Glossary.	***HD*** Ch. 5, Neoplasia.	***UP*** Ch. 30, Chemotherapy Drugs.	***LTDP*** Ch. 22, Immunology.	***MTWB*** Complete worksheets on the Endocrine System in Section 2H. **BMT2 Practice** Transcribe Hematology-Oncology/ Immunology Reports #11-15.

The SUM Program for Medical Transcription Training
Intermediate Course Descriptions and REQUIRED Textbooks

Surgical Procedures
Course Description

Course Description: A comprehensive study of surgical techniques, instruments, and operative procedures by body system.

Recommended Prerequisites: Anatomy and Physiology, Medical Science, Medical Terminology, Disease Processes.

Recommended Course Length: 15 hours (1 hour per section).

Course Objectives

1. Identify common surgical procedures for each body system.
2. Describe the role of members of the healthcare team in the operating and recovery rooms.
3. Describe and sequence the steps commonly taken to prepare a patient for surgery.
4. List common suture materials, suture techniques, and dressings.
5. Identify common surgical instruments and describe their use.
6. Describe the steps involved in selected surgical procedures for each body system.
7. Define common abbreviations for surgeries by body system.
8. Spell and pronounce common surgical procedures.

SECTION 1

1. Introduction to course and overview of contents.
2. The operating room and staff.
3. Aseptic technique.
4. Anesthesia methods.
5. Transporting and positioning the patient.
6. Preparation of the surgical site.
7. Wounds and wound closure.
8. Hemostasis.

SECTION 2

1. Surgical instruments.
2. Cardiothoracic surgery.

SECTION 3

Open gastrointestinal surgery.

SECTION 4

Laparoscopic gastrointestinal surgery.

SECTION 5

1. Urinary surgery.
2. Male reproductive system surgery.

SECTION 6

Laser technology and use.

SECTION 7

1. Thyroid surgery.
2. Ear, nose, throat, and mouth surgery.

SECTION 8

Eye surgery.

SECTION 9

Neurosurgery

SECTION 10

1. Gynecological surgery.
2. Obstetrical surgery.

SECTION 11

Surgical routines and emergencies.

SECTION 12

Orthopedic surgery.

SECTION 13

1. Microbiology.
2. Acquired immunodeficiency syndrome (AIDS).

SECTION 14

Plastic and reconstructive surgery.

SECTION 15

Breast surgery.

Laboratory Tests and Diagnostic Procedures in Medicine II
Course Description

Course Description: A continuation of Laboratory Tests and Diagnostic Procedures in Medicine I that includes advanced medical imaging procedures and anatomic pathology. For each test or procedure, the methodology, indications or purposes, and range of results are covered to enable the student to recognize pertinent terminology and to grasp the general sense of a report.

Recommended Prerequisites: Completion of Laboratory Tests and Diagnostic Procedures in Medicine I.

Recommended Course Length: 30 hours (2 hours per section).

Course Objectives:

1. List the indications and diagnostic and/or surgical uses of thoracoscopy, mediastinoscopy, laparoscopy, culdoscopy, and arthroscopy.
2. Discuss the basic principles of contrast radiography and describe the applications and limitations of contrast examinations of the upper and lower digestive system and biliary tract, the genitourinary system, and cerebral, coronary and pulmonary angiography.
3. Explain how computed tomography differs from standard diagnostic radiography, list advantages and applications of CT, and discuss the use of contrast media in CT.
4. Discuss the basic principles, advantages and disadvantages, and application of diagnostic ultrasonography in obstetrics and cardiology.
5. Describe how magnetic resonance imaging works and explain its advantages and disadvantages.
6. Define radioisotopes and tell how they are applied in nuclear imaging and explain how nuclear imaging differs from all other imaging methods
7. Describe the gross and microscopic structure of the human body, the structure and function of cells, and the distinguishing features of basic tissue types.
8. Outline the procedure for preparing stained sections of tissue for microscopic examination and discuss the basic techniques and diagnostic roles of cytologic studies, biopsies, and autopsies.
9. Explain the pathologic consequences of developmental, growth, and nutrition disorders; inflammation, infection, and allergy; atrophy, degeneration, and necrosis in circulatory disorders; and benign and malignant neoplasms.
10. Distinguish formed elements of the blood and describe basic laboratory tests pertaining to them.

SECTION 1: CHAPTER 9, ENDOSCOPIC EXAMINATIONS REQUIRING INCISIONS

1. Thoracoscopy.
2. Mediastinoscopy.
3. Laparoscopy.
4. Culdoscopy.
5. Arthroscopy.

SECTION 2

No reading assignments in *Laboratory Tests and Diagnostic Procedures in Medicine*.

SECTION 3: CHAPTER 12, COMPUTED TOMOGRAPHY

1. How computed tomography differs from standard radiography.
2. Advantages and applications of computed tomography.
3. Use of contrast media in computed tomography.

SECTION 4

No reading assignments in *Laboratory Tests and Diagnostic Procedures in Medicine*.

SECTION 5: CHAPTER 13, ULTRASONOGRAPHY

1. Principles of ultrasonography.
2. Obstetrical ultrasonography.
3. Echocardiography.

SECTION 6

No reading assignments in *Laboratory Tests and Diagnostic Procedures in Medicine.*

SECTION 7: CHAPTER 14, MAGNETIC RESONANCE IMAGING

1. How magnetic resonance imaging works.
2. Advantages and disadvantages of MRI.

SECTION 8

No reading assignments in *Laboratory Tests and Diagnostic Procedures in Medicine*.

SECTION 9: CHAPTER 15, NUCLEAR IMAGING

1. Concepts of nuclear imaging.
2. What is a radioisotope.
3. How nuclear imaging differs from all other imaging.
4. Positron emission tomography.
5. SPECT scan.
6. Ventilation-perfusion lung scan.
7. Bone scintigraphy.

SECTION 10: CHAPTER 16, NORMAL ANATOMY AND PHYSIOLOGY

1. Gross and microscopic structure of human body.
2. Structure and function of cells.
3. Distinguishing features of basic tissue types.

SECTION 11

No reading assignments in *Laboratory Tests and Diagnostic Procedures in Medicine*.

SECTION 12: CHAPTER 17, PROCEDURES AND PRACTICES IN ANATOMY AND PHYSIOLOGY

1. Staining procedures of tissue for microscopic examination.
2. Basic techniques and diagnostic roles of cytologic studies, biopsies, and autopsies.

SECTION 13

No reading assignments in *Laboratory Tests and Diagnostic Procedures in Medicine*.

SECTION 14: CHAPTER 18, PATHOLOGIC CHANGE AND PATHOLOGIC DIAGNOSIS

1. Pathologic consequences of developmental, growth, and nutrition disorders.
2. Pathologic changes in inflammation, infection, and allergy.
3. Pathologic changes in atrophy, degeneration, and necrosis in circulatory disorders.
4. Pathology of benign and malignant neoplasms.

SECTION 15

No reading assignments in *Laboratory Tests and Diagnostic Procedures in Medicine.*

Intermediate Medical Transcription Practice
Course Description

Course Description: The transcription of physician-dictated surgery reports, organized by medical specialty. Emphasis on the development of accuracy, speed, and surgical knowledge for the transcription of operative reports, diagnostic studies, and procedure notes. Using reference materials and other resources efficiently. Editing and proofreading techniques. Written surgery exercises.

Recommended Prerequisites: Beginning Medical Transcription or previous experience as a medical transcriptionist. Completion of beginning courses in Anatomy and Physiology, Medical Terminology, Human Diseases *or* Disease Processes, Medical Science, Pharmacology, Laboratory Tests and Diagnostic Procedures in Medicine. Minimum typing speed of 50 corrected words per minute. College-level proficiency in spelling, English grammar, and usage.

Recommended Course Length: 165 hours of transcription time (11 hours per section).

Course Objectives

1. Select the correct format for a dictated surgical report.
2. Demonstrate the proper use of reference materials.
3. Transcribe operative reports, diagnostic studies, and surgical procedure notes.
4. Edit the transcript to correct obvious grammatical and punctuation errors.
5. Identify obvious medical inconsistencies.
6. Produce a final, neat, error-free transcript.
7. Increase transcription speed and productivity throughout the course.

SECTION 1: CARDIOVASCULAR/THORACIC SURGERY

1. Introduction of course and overview of contents.
2. Report formats for operative reports, diagnostic studies, and procedure notes.
3. Review of cardiovascular surgery.
4. Review of thoracic surgery.
5. Transcription of physician-dictated cardiovascular and thoracic surgery reports.

SECTION 2: CARDIOVASCULAR/THORACIC SURGERY

1. Review of cardiovascular surgery.
2. Review of thoracic surgery.
3. Transcription of physician-dictated cardiovascular and thoracic surgery reports.

SECTION 3: GASTROINTESTINAL SURGERY

1. Review of gastrointestinal surgery.
2. Transcription of physician-dictated gastrointestinal surgery reports.

SECTION 4: GASTROINTESTINAL SURGERY

1. Review of gastrointestinal surgery.
2. Transcription of physician-dictated gastrointestinal surgery reports.

SECTION 5: GENITOURINARY SURGERY

1. Review of urological surgery.
2. Review of male reproductive system surgery.
3. Transcription of physician-dictated genitourinary surgery reports.

SECTION 6: GENITOURINARY SURGERY

1. Review of urological surgery.
2. Review of male reproductive system surgery.
3. Transcription of physician-dictated genitourinary surgery reports.

SECTION 7: HEAD AND NECK SURGERY

1. Review of neck surgery.
2. Review of ear, nose, and throat surgery.
3. Review of eye surgery.
4. Transcription of physician-dictated head and neck surgery reports.

SECTION 8: HEAD AND NECK SURGERY

1. Review of neck surgery.
2. Review of ear, nose, and throat surgery.
3. Review of eye surgery.
4. Transcription of physician-dictated head and neck surgery reports.

SECTION 9: NEUROSURGERY

1. Review of neurosurgery.
2. Transcription of physician-dictated neurosurgery reports.

SECTION 10: OB/GYN SURGERY

1. Review of gynecological surgery.
2. Review of obstetrical surgery.
3. Transcription of physician-dictated obstetrical reports.
4. Transcription of physician-dictated gynecological reports.

SECTION 11: OB/GYN SURGERY

1. Review of gynecological surgery.
2. Review of obstetrical surgery.
3. Transcription of physician-dictated obstetrical reports.
4. Transcription of physician-dictated gynecological reports.

SECTION 12: ORTHOPEDIC SURGERY

1. Review of orthopedic surgery.
2. Transcription of physician-dictated orthopedic surgery reports.

SECTION 13: ORTHOPEDIC SURGERY

1. Review of orthopedic surgery.
2. Transcription of physician-dictated orthopedic surgery reports.

SECTION 14: PLASTIC SURGERY

1. Review of plastic surgery.
2. Review of breast surgery.
3. Transcription of physician-dictated plastic surgery reports.

SECTION 15: PLASTIC SURGERY

1. Review of plastic surgery.
2. Review of breast surgery.
3. Transcription of physician-dictated plastic surgery reports.

Intermediate Medical Transcription—Surgery Transcription

Course and Textbooks SECTION	*Surgical Technology: Principles & Practice, 4th ed.*
Section 1: Introduction to Surgery **Note**: It is recommended that the entire first section be preparatory reading for the rest of the course. It is important that students be aware of the surgical concepts, techniques, and materials discussed in these readings, and they should be encouraged to review and refer to these readings as they proceed through the course.	**Note**: *Use the Table of Contents and the Index to locate the assigned readings. Subsections are identified by initial capital letters; major sections are identified by all caps. If a section is in all caps, read everything under that heading up to the next ALL-CAP heading.* **Read**: 1. In Chapter 5, Operating Room Environment, read the following sections: Postanesthesia Care Unit, OPERATING ROOM (SURGICAL) SUITE, ENVIRONMENTAL CONTROLS. 2. In Chapter 10 (Transporting, Transferring, and Positioning), read the following sections: PATIENT INJURIES AND POSITIONING; SURGICAL POSITIONS. 3. Chapter 11, Surgical Preparation and Draping (ALL). 4. Chapter 12, Anesthesia (ALL). 5. Chapter 13, Surgical Pharmacology (Start at DRUG ADMINISTRATION to end of chapter). 6. Chapter 15, Surgical Techniques (Terminology; CASE PLANNING, Stop at Opening a Case; Skip to SURGICAL COUNT, Stop at Passing and Handling Instruments; Skip to HANDLING AND CARING FOR SPECIMENS, to end of Chapter 15). 7. Chapter 16 (ALL). 8. Chapter 20, The Selection of Surgical Instruments (ALL). **Exercises** for Fuller, *Surgical Technology: Principles and Practice*. The exercises at the end of chapters are for surgical technologists and not appropriate for medical transcription students, so there are no textbook exercises for this text. However, your instructor may have additional exercises for you to do, but at a minimum, you should do the following: As you read the assignments, highlight and look up in a dictionary any terminology you do not know. Pay particular attention to the Technique and Discussion sections for each of the procedures discussed. As you transcribe the surgical dictations, use the index to locate any readings that correspond to the type of procedure you are transcribing, re-reading those sections and noting any vocabulary that corresponds to the report you are transcribing. If there is terminology used in the dictations that is not covered in the readings, make a note of same and be certain that you understand the meanings of those terms.

Intermediate Medical Transcription—Surgery Transcription

Course and Textbooks SECTION	*Surgical Technology: Principles & Practice*, 4th ed.	Laboratory Medicine *Laboratory Tests & Diagnostic Procedures in Medicine*	Surgery Transcription Practice *The Medical Transcription Workbook*, 3rd ed. (MTWB)
Section 2: Cardiovascular/Thoracic Surgery	**Read**: Chapter 29, Cardiothoracic Surgery.	**No assignment**.	**MTWB Exercises**: Section 2K: Surgery: General Surgery & Anesthesia. **Transcribe**: Cardiovascular/Thoracic Surgery, Dict. 1-7
Section 3: Cardiovascular/Thoracic Surgery	**Read**: Read Chapter 28, Peripheral Vascular Surgery (ALL).	**No assignment**.	**MTWB Exercises**: Section 2K: Surgery: Cardiovascular & Respiratory. **Transcribe**: Cardiovascular/Thoracic Surgery, Dict. 8-12
Section 4: Gastrointestinal Surgery	**Read**: Chapter 21, General Surgery, Sections I-IV (about 78 pages)	**No assignment**.	**MTWB Exercises**: None. **Transcribe**: Gastrointestinal Surgery, Dict. 1-6.
Section 5: Gastrointestinal Surgery	**Read**: Chapter 18, Endoscopic Surgery & Robotics (Stop at Robotics); Chapter 30, Pediatric Surgery.	**Read**: Chapter 9, Endoscopy **Exercises**: End of chapter.	**MTWB Exercises**: Section 2K: Surgery, Gastrointestinal System. **Transcribe**: Gastrointestinal Surgery, Dict. 7-13.
Section 6: Genitourinary Surgery	**Read**: Chapter 23, Genitourinary Surgery.	**Read**: Chapter 13, Ultrasound. **Exercises**: End of chapter.	**MTWB Exercises**: Section 2K: Surgery, Genitourinary System. **Transcribe**: Genitourinary Surgery, Dict. 1-10.
Section 7: Head and Neck Surgery	**Read**: Chapter 25, Otolaryngologic, Oral, and Maxillofacial Surgery, Sections I-III.	**Read**: Chapter 12, Computed Tomography. **Exercises**: End of chapter.	**MTWB Exercises**: None. **Transcribe**: Head and Neck Surgery, Dict. 1-9.
Section 8: Head and Neck Surgery	**Read**: Chapter 24, Ophthalmic Surgery.	**Read**: Chapter 14, Magnetic Resonance Imaging. **Exercises**: End of chapter.	**MTWB Exercises**: Section 2K: Surgery: Ears, Nose, and Throat and Eyes. **Transcribe**: Head and Neck Surgery, Dict. 10-17

Intermediate Medical Transcription—Surgery Transcription

Course and Textbooks SECTION	*Surgical Technology: Principles & Practice*, 4th ed.	Laboratory Medicine *Laboratory Tests & Diagnostic Procedures in Medicine*	Surgery Transcription Practice *The Medical Transcription Workbook*, 3rd ed. (MTWB)
Section 9: Neurosurgery	**Read**: Chapter 31, Neurosurgery.	**Read**: Chapter 15, Nuclear Imaging. **Exercises**: End of chapter.	**MTWB Exercises**: Section 2K: Surgery: Nervous System. **Transcribe**: Neurosurgery. Dict. 1-7.
Section 10: Ob/Gyn Surgery	**Read**: Chapter 22, Gynecological and Obstetrical Surgery.	**No assignment**.	**MTWB Exercises**: None. **Transcribe**: Ob/Gyn Surgery, Dict. 1-6.
Section 11: Ob/Gyn Surgery	**Read**: Chapter 19, Diagnostic Procedures	**Read**: Chapter 16: Normal Anatomy & Physiology. **Exercises**: End of chapter.	**MTWB Exercises**: Section 2K: Surgery: Female Reproductive System. **Transcribe**: Ob/Gyn Surgery, Dict. 7-14.
Section 12: Orthopedic Surgery	**Read**: Chapter 27, Orthopedic Surgery.	**No assignment**.	**MTWB Exercises**: None. **Transcribe**: Orthopedic Surgery, Dict. 1-8.
Section 13: Orthopedic Surgery	**Read**: Chapter 7, Microbiology and the Process of Infection.	**Read**: Chapter 17, Pathologic Procedures & Practice. **Exercises**: End of chapter.	**MTWB Exercises**: Section 2K: Surgery: Musculoskeletal System. **Transcribe**: Orthopedic Surgery, Dict. 9-15.
Section 14: Plastic Surgery	**Read**: Chapter 25, Otolaryngologic, Oral, and Maxillofacial Surgery, Section IV (to end of chapter); Chapter 21, General Surgery, Section V (to end of chapter).	**Read**: Chapter 18, Pathologic Change & Diagnosis. **Exercises**: End of chapter.	**MTWB Exercises**: None. **Transcribe**: Plastic Surgery, Dict. 1-7.
Section 15: Plastic Surgery	**Read**: Chapter 26, Plastic & Reconstructive Surgery.	**No assignment**.	**MTWB Exercises**: Section 2K: Surgery, Integumentary System. **Transcribe**: Plastic Surgery, Dict. 8-15.

Advanced Medical Transcription Practice
Course Description

Course Description: Transcription of more challenging authentic physician-dictated reports organized by medical specialty. Emphasis on development of accuracy, speed, and medical knowledge for transcription of history and physical examination reports, consultations, emergency room reports, discharge summaries, operative reports, laboratory reports, diagnostic studies, radiology and pathology reports. Using reference materials and other resources efficiently. Editing and proofreading techniques. Grammar and punctuation review.

Recommended Prerequisites: Beginning (Medical) Transcription, Intermediate (Surgery) Transcription, or previous experience as a medical transcriptionist. Completion of courses in Anatomy and Physiology, Medical Terminology, Human Diseases *or* Disease Processes, Surgical Procedures, Medical Science, Pharmacology, Laboratory Tests and Diagnostic Procedures in Medicine. Minimum typing speed of 50 corrected words per minute. College-level proficiency in spelling, English grammar, and usage.

Recommended Course Length: 375 hours of transcription practice (approximately 25 hours per section).

Course Objectives

1. Select the correct format for a dictated medical report.
2. Demonstrate the proper use of reference materials.
3. Transcribe consultations, history and physical reports, discharge summaries, laboratory reports, operative reports, diagnostic procedures, radiology, and pathology reports.
4. Edit the transcript to correct obvious grammatical and punctuation errors.
5. Identify obvious medical inconsistencies.
6. Produce a final, neat, error-free transcript.
7. Increase transcription speed and productivity throughout the course.

SECTION 1

1. Introduction of course and overview of contents.
2. Autopsy protocols and report format.
3. Transcription guidelines for pathology reports.
4. Pathology transcription practice.

SECTION 2: Pathology transcription practice.

SECTION 3: Pathology transcription practice.

SECTION 4

1. Radiology dictation and report formats.
2. Transcription guidelines for radiology reports.
3. Radiology transcription practice.

SECTION 5: Radiology transcription practice.

SECTION 6

1. Report format review.
2. Medical and surgical transcription guidelines review.
3. Advanced gastrointestinal transcription practice.

SECTION 7: Advanced gastrointestinal transcription practice.

SECTION 8: Advanced gastrointestinal transcription practice.

SECTION 9: Advanced cardiology transcription practice.

SECTION 10: Advanced cardiology transcription practice.

SECTION 11: Advanced cardiology transcription practice.

SECTION 12: Advanced orthopedic transcription practice.

SECTION 13: Advanced orthopedic transcription practice.

SECTION 14: Advanced orthopedic transcription practice.

SECTION 15: Retranscribe the most troublesome advanced reports.

Advanced Transcription Practice

SECTION	Transcribe the following dictations. (No textbook readings)
SECTION 1: PATHOLOGY	Pathology Transcription Unit, first hour of dictation
SECTION 2: PATHOLOGY	Pathology Transcription Unit, next 1-1/2 hours
SECTION 3: PATHOLOGY	Pathology Transcription Unit, final 1-1/2 hours
SECTION 4: RADIOLOGY	Radiology Transcription Unit, first 1-1/2 hours
SECTION 5: RADIOLOGY	Radiology Transcription Unit, second 1-1/2 hours
SECTION 6: GASTROINTESTINAL	Gastrointestinal Transcription Unit, first hour
SECTION 7: GASTROINTESTINAL	Gastrointestinal Transcription Unit, next 1-1/2 hours
SECTION 8: GASTROINTESTINAL	Gastrointestinal Transcription Unit, final 1-1/2 hours
SECTION 9: CARDIOLOGY	Cardiology Transcription Unit, first hour
SECTION 10: CARDIOLOGY	Cardiology Transcription Unit, first 1-1/2 hours
SECTION 11: CARDIOLOGY	Cardiology Transcription Unit, final 1-1/2 hours
SECTION 12: ORTHOPEDIC	Orthopedic Transcription Unit, first hour
SECTION 13: ORTHOPEDIC	Orthopedic Transcription Unit, next 1-1/2 hours
SECTION 14: **ORTHOPEDIC**	Orthopedic Transcription Unit, final 1-1/2 hours
SECTION 15: **ORTHOPEDIC**	Retranscribe the most troublesome reports.

Resource Articles for Medical Transcription Teachers
A Supplement to the *Teacher's Manual*

Organization Tips

Educationalese and Marketing

Professional Growth

Most of the articles included in the *Teacher's Manual* and collection of Resource Articles for Medical Transcription Teachers were originally published in HPI's periodical, *Perspectives on the Medical Transcription Profession*, published two to four times a year since 1990 (and now in electronic format, *e-Perspectives*, available on the HPI Web site: **www.hpisum.com**). A notable exception is Ellen Drake's *Reference Book Skills and Drills*, which she has presented in numerous seminars and classrooms over the years.

CURRICULUM AND PROGRAM DESIGN

Planning a Curriculum: An Overview

by Ellen Drake, CMT

1. The Ideal Medical Transcription Program

Course	Credits*	Contact Hours
Basic Studies (Degree Requirements)	15	225
Medical and Scientific English	2	30
Medical Terminology I and II	6	90
Anatomy and Physiology I and II	6	90
Disease Processes	3	45
Keyboarding, Word Processing	3	45
Pharmacology	2	30
Laboratory Science	2	30
Medical Science (H&P)	2	30
Professional Issues	3	45
Medical Transcription I and II	40	600
Practicum	20	300
Electives	12	180
Total	116	1740

*1 credit = 1 hr/wk for 15 weeks

2. The Ideal Medical Transcription Program after the Curriculum Committee gets through with it.

Course	Credits*	Contact Hours
Basic Studies (Degree Requirements)	15	225
Medical and Scientific English	2	30
Medical Terminology I	3	45
Anatomy and Physiology I	3	45
Disease Processes	3	45
Keyboarding, Word Processing	3	45
Medical Science, Pharmacology, Lab	2	30
Professional Issues	1	15
Medical Transcription I and I		
I	20	300
Total	49	735

*1 credit = 1 hr/wk for 15 weeks

3. The medical transcription curriculum after Budget and Finance get through with it.

Course	Credits*	Contact Hours
Medical and Scientific English	2	30
Medical Terminology and A&P	3	45
Keyboarding, Word Processing	3	45
Medical Transcription I and II	10	150
Total	18	270

*1 credit = 1 hr/wk for 15 weeks

4. The medical transcription curriculum after the Scheduling and Planning Committee gets through with it.

Course	Credits*	Contact Hours
Introduction to Medical Transcription	3	45

*1 credit = 1 hr/wk for 15 weeks

5. The medical transcription curriculum after the department of Physical Plant and Room Assignment gets through with it.

(continued on next page)

Planning, adapting, or expanding a medical transcription curriculum can be an exercise in frustration as illustrated by the scenarios given above. After much hard work, the program planner sees little that resembles the grand design originally proposed.

People who have never actually worked for an educational institution often have little perception of reality when it comes to planning a curriculum. In addition to the usual budgeting, scheduling, physical plant, and political constraints that affect the development of a program, medical transcription is plagued by a far more deadly threat—no one in the educational system knows what it is!

It would be easy to throw an Ideal Medical Transcription Program curriculum at you and say, "If you can't achieve this ideal, don't bother with anything else. It won't be worthwhile, anyway."

At Health Professions Institute, we're pragmatists. And we're educators, too, so we understand the many obstacles you may face in developing your ideal program. Because of our commitment to the medical transcription profession, we want to help those who are interested develop and maintain as fine a program as they possibly can.

The first step in developing a medical transcription curriculum often involves educating the decision-makers about the profession itself. They don't understand that keyboarding skills are a minor requirement compared with the medical knowledge, discernment, and editing skills necessary to be a good transcriptionist.

Investors, education administrators, and students want a quick fix. They want to be making a profit overnight, producing high-quality entry-level graduates, or telecommuting from home, all with minimal investment of time and money. In short, they want it all now!

On the other hand, experienced transcriptionists and educators familiar with the profession know that transcription is ultimately rewarding, but there is no quick and easy path to learning medical transcription the right way. And before you can start the kind of quality program that will produce graduates who are genuinely job-ready, you must enlighten at least your administrators and potential students. If you do not, conflict and problems will ensue, and when they do, your program will suffer.

Questions to Ask

Some of the questions you now need to ask include the following. These may be good questions to ask whether you are starting from scratch or expanding existing courses.

- What do we want to accomplish with our program? Do we want to prepare job-ready graduates for hospitals or doctors' offices or specialty clinics? Do we want to prepare graduates for continuing on-the-job training? Do we want to simply familiarize the graduates of our secretarial programs with the possibilities of branching out into medicine?
- Do we start with a complete program or begin with an introductory course and expand it later?
- Are there other secretarial or health-related programs in our school with courses that we can adapt to fit our needs? Are there courses that we can add that will also benefit these programs?
- Exactly what courses are essential to a good program? Are there other courses that would be advantageous but not critical? In what order should the courses be offered?
- Do we want a degree program or a certificate program or both?

The most critical question that needs to be answered first is about the goals for the program. The

amount of time spent in hands-on medical transcription practice and your program goals are inseparable.

To prepare job-ready graduates for hospitals or doctors' offices and clinics, hands-on transcription of actual physician dictation—lots of it—is essential. There is no more effective way to teach the skills of medical transcription than by doing it. The necessity of using authentic physician dictation for medical transcription practice cannot be over-emphasized. Here's why.

- The use of authentic physician dictation has a proven track record. Medical transcription supervisors, health information managers, and transcription service owners—your students' future employers—know that the only way to prepare students for a medical transcription career is to train with real physician dictation. This, combined with the appropriate academic course work, will ensure your students are well prepared to enter this work force. "The primary advantage to providing real-life situations in technical training is in direct correlation to successful mastery and demonstrated competency" (*Training & Development Journal*, November 1988).
- Master medical transcription instructors overwhelmingly recommend and use authentic physician dictation. Their graduates are in high demand because they are more accurate, more productive, and score higher on their pre-employment tests.
- Your class transcription time is limited. Why waste it using "fake" dictation? Even when the dictation consists of reading or dramatization of actual medical reports, your students waste valuable time. Experience has shown that the transition from fake to real dictation is no easier on the student than starting with authentic physician dictation.

Of course, transcription practice cannot be done in isolation; a certain amount of academic instruction must precede or accompany transcription practice.

While students preparing to work in doctors' offices and clinics can become skilled by transcribing history and physicals, office notes, consultations, letters, and resumés, hospital-bound students must transcribe operative reports as well as radiology and pathology dictation. While the latter two areas have been traditionally isolated from general medical transcription, with the downsizing and consolidation of services common to the medical environment, cross-training is essential today.

How much transcription is necessary to prepare entry-level, job-ready graduates? For entry-level office and clinic transcriptionists, 120 to 240 hours of hands-on transcription has proven effective. A total of 310 to 600 or more hours of hands-on transcription with an additional "real-life" practicum of four to eight weeks has produced many qualified entry-level hospital transcriptionists. This, of course, is in combination with a heavy academic schedule, which will be discussed later.

"There is no way our administrators would approve that." "I'm lucky to have 45 hours of actual transcription." "You're dreaming, of course!" Let's separate the feasible or the practical from the idealistic.

While these recommendations may seem like fantasy, they're not impossible. There are many schools using HPI's curriculum. But assuming they're impossible for you, what can you do? First, you must go back to your goals and see if they're realistic. You may need to change your expectations of your graduates to coincide with what can realistically be expected from your curriculum.

Offering an Introductory MT Course

What can you achieve with 45 to 90 hours of medical transcription practice? If you focus on specialties, you could prepare a student to work in a single-specialty office or clinic (assuming other academic study is included in the program). Under these circumstances, very focused terminology study and sample reports could enhance learning. Prompt feedback is critical so that students immediately learn from their mistakes. Reference skills need to be emphasized so that students can quickly find terms they don't know.

Using about one-third of the total transcription practice time to give students an overview of various specialties, putting emphasis on history and physicals, lab tests, and pharmacology, the remainder of the time could be devoted to transcription of a single specialty.

Another alternative is to consider the course an introduction to medical transcription that will give students an understanding of the profession and an overview of all specialties. Many office systems and secretarial programs include this type of course. Students should be aware, however, that they would not be prepared to be full-time medical transcriptionists.

One way to overcome limited medical transcription practice time is to institute a separate lab period for which the student receives only one credit for three to four hours a week in lab (compared to the usual 1:1 method). This triples or quadruples the amount of actual time the student is transcribing. It does require that a computer lab be available, but would not "use up" the available credit hours allotted to the program. This is a common practice in science programs.

Another way to overcome the too-little-time-to-practice problem is to offer additional transcription courses as electives, as evening courses (which might attract non-degree- or non-certificate-seeking students), or as continuing education classes. Weekend courses could be instituted where most of the transcription practice would be done on home equipment and class time used to review work and discuss problems.

Since *The SUM Program* beginning and advanced transcription units are organized by medical specialty, it is easy to develop short, specialty-oriented, evening, weekend, or continuing education classes. The syllabi in the *Teacher's Manual* can be adapted so that each advanced unit is treated as a separate course. Your school may find that such offerings appeal to a wider audience than students already enrolled in the secretarial program. This would increase revenues, broaden school and program recognition in the community, and could even appeal to employers who wanted their employees to improve or broaden skills. The marketing possibilities for such courses are unlimited.

With a clear idea of what can be accomplished with your available transcription practice time, it is time to determine which goal is realistic for your school. It may be that you want to establish short-term and long-range goals, especially if you want to start small and expand your program in successive terms. Let's look at one-semester and three-semester certificate program curricula and answer some of the additional questions posed above. But before we go on, let us point out that school administrative restrictions are not the only factors affecting program development and the length of a program. We've talked with hundreds of teachers over the years, and their experiences are similar. Without exception, teachers tell us that the students their programs are attracting today are older (30s to 40s, and even some 50s and 60s); they're displaced homemakers, the victims of "down-sizing," "right-sizing," or business closures; and they're often juggling jobs, families (many are single parents), and school.

These people want employable skills and they want them now! They're usually practical enough to know that getting the skills they want requires time, dedication, and hard work. What they don't want, however, is to waste time that's in short supply, taking courses that are irrelevant, or in getting a degree. They also don't want to fail. So our recommendations are that strict entry-level skill requirements, and even some prerequisite courses, will improve the students' chances for success and will be accepted by these highly motivated, determined, hard-working students coming into programs today.

One-Semester Programs

Let's look at the one-semester curriculum first. For this analysis, one semester consists of 15 weeks of 32 contact hours a week. Recognizing that some subjects will have to be given a "once-over-lightly" treatment and others treated in more depth, which academic subjects should receive the emphasis?

There are two subjects that cannot be neglected—medical terminology, and anatomy and physiology. It would be next to impossible to teach medical transcription without knowledge of these two subjects. Only slightly less important is a firm grounding in English language skills. These are the three most important academic areas to stress in the curriculum, along with transcription practice, which is essential.

The shorter the transcription program, the more incoming students need high levels of ability in the prerequisite skills of keyboarding, computer knowledge, and English language knowledge. For a one-semester course, a typing speed of 60 wpm or better, working knowledge of word processing software, and college-level English skills are reasonable prerequisites.

It is not feasible to attempt to improve keyboarding or word processing competencies or provide remedial English in a short program of only one semester. The focus of a short program should be on providing the medical knowledge and transcription skills that students cannot get outside the program.

In the one-semester program schedule, note that of the 32 contact hours each week, three for medical terminology and three for A&P are required, with two for English. The remaining hours a week are spent in transcription lab, where the instructor lectures (on both a planned and spontaneous basis) on subjects such as formatting, laboratory medicine, medical content, pharmacology encountered in the dictated reports, and on-the-job issues (confidentiality, working environment, professional issues).

The academic classes and preliminary lectures for transcription lab should be scheduled at the beginning of the week, as the students will need to know the material in order to transcribe the reports.

The same body systems or specialities should be studied simultaneously in both medical terminology and anatomy and physiology. In transcription lab, the students should transcribe dictations for those same body systems or specialties. In this way, each reinforces the other and provides a frame of reference for learning medicine.

English language skills need to be taught in the context of medical report content. Students should know the rules and applications of grammar and punctuation upon entering the program. They need only to be shown how those rules they already know apply to medical dictation. Style conventions, abbreviations, capitalization, and the use of numbers in medical reports will need to

be covered as well. Students should be taught that grammar and punctuation rules are fairly consistent, but conventions of style may vary greatly, depending on the reference used and the work setting.

Students need to be shown how to select and use appropriate references. As brief as the time may be, some class activity time should be spent on practicing reference book skills. At the very least, some take-home assignments in which the students have to research a list of words dictated by the teacher, write out the definitions and etymology, and state where they found the terms can be used to identify how much and how well they're using their references.

Students tend to quickly identify the references that have most of the words they need and then neglect to learn to use other references. Sometimes they fail to verify the definitions of the words they find in their word books. Thus, the proper use of a medical dictionary cannot be understated.

Transcription Labs

The SUM Program guidelines suggest that a dictation be transcribed once, proofread, and checked against the transcript keys—then repeating the process, transcribing again without referring to the first transcript, proofreading, and comparing to the transcript key, until a chartable or mailable transcript is produced. To maximize the amount of dictation the students are exposed to, these recommendations can be modified.

The instructor should review the difficult terminology, abbreviations, drugs, and lab data, as well as any difficult-to-understand dictation or muddled sentences students may encounter in the dictation. Extensive use of sample reports will help students produce quality transcripts sooner. Encourage students NOT to leave blanks but to ask for help if they cannot understand something, teaching them, as you help them with specific problems, how to use their references to greatest advantage.

Spend a few minutes each morning answering questions from the class about the transcription they did the previous day. That way, slower students will learn from faster students the solutions to the problems they will soon encounter. All the students will benefit by not repeating mistakes they made the previous day.

If time is really short, and students cannot transcribe each dictation twice, have the students proofread their transcripts on-screen by listening to the dictation instead of transcribing it a second time. Then you or the students can compare their on-screen transcript to the transcript key. If there are too many serious errors (errors that affect meaning), discuss the errors and have the student transcribe the dictation again, without benefit of transcript key or previous transcription. If errors are minor, the student may go on the next dictation.

Requiring students to proof their on-screen transcripts with the actual dictation and allowing them to check their printed work against the transcript keys will help to teach the proofreading and editing skills that limited class time does not allow you to teach in a more formal way. As you go over their final transcripts, you can note not only their transcription errors but any errors that are obviously due to failing to proofread carefully, and explain any editing that had to be done. If the student makes an edit that is inconsistent with the keys, compare the two versions and discuss which one is better and why, or whether both are equally acceptable.

Depending on the number of the students in the class, the instructor may want to check all the

Sample One-Semester Schedule (Certificate Program)

Monday	8:30 - 10:30	English
	10:30 - 12:30	Medical Terminology
	12:30 - 1:30	Lunch
	1:30 - 4:30	Anatomy and Physiology
Tuesday	8:30 - 12:30	Transcription Lab
Thursday	1:30 - 4:00	Transcription Lab
Friday	8:30 - 1:00	Transcription Lab

Sample Two- and Three-Semester Schedules (Certificate Program)

First Semester	**Hours**
Medical Terminology	45
Anatomy & Physiology	45
Disease Processes	45
Pharmacology	30
Laboratory Procedures I	15
Medical Science	15
Beginning Medical Transcription Lab	240
Second Semester	
Professional Issues	45
Surgical Procedures	15
Laboratory Procedures II	15
Advanced Medical Transcription Practice	405
Third Semester	
Medical Transcription Lecture	45
Practicum	160-320

Note: To make this an associate-degree program, add one semester or more of state-mandated courses (English, math, computer technology, etc.)

Sample 30-Week Vocational Education Schedule (Certificate Program)

Weeks 1-15		
Monday, Tuesday, Wednesday	8:00 - 9:00	Anatomy and Physiology
	9:05 - 10:05	Medical Terminology
	10:05 - 10:20	Break
	10:20 - 11:20	Pharmacology (Mon.-Tues. only) Lab. Medicine I (Wed. only)
	11:25 - 12:25	Disease Processes
	12:25 - 1:15	Lunch
	1:15 - 2:15	Transcription Practice
	2:15 - 2:30	Break
	2:30 - 3:30	Transcription Practice
Thursday, Friday	8:00 - 9:00	Medical Science (Thurs. only) Professional Issues (Fri. only)
	9:05 - 10:05	Transcription Practice
	10:05 - 10:20	Break
	10:20 - 11:20	Transcription Practice
	11:20 - 11:25	Minibreak
	11:25 - 12:25	Transcription Practice
	12:25 - 1:15	Lunch
	1:15 - 2:15	Transcription Practice
	2:15 - 2:30	Break
	2:30 - 3:30	Transcription Practice
Weeks 15 - 30		
Monday, Tuesday, Wednesday	8:00 - 9:00	Lab Medicine II (Mon. only) Surg. Procedures (Tues. only) Professional Issues (Wed. only)
	9:05 - 10:05	Transcription Practice
	10:05 - 10:20	Break
	10:20 - 11:20	Transcription Practice
	11:20 - 11:25	Minibreak
	11:25 - 12:25	Transcription Practice
	12:25 - 1:15	Lunch
	1:15 - 2:15	Transcription Practice
	2:15 - 2:30	Break
	2:30 - 3:30	Transcription Practice

(continued)

Weeks 15 - 30 *(continued)*

Thursday, Friday	8:00 - 9:00	Transcription Practice
	9:00 - 9:05	Minibreak
	9:05 - 10:05	Transcription Practice
	10:05 - 10:20	Break
	10:20 - 11:20	Transcription Practice
	11:20 - 11:25	Minibreak
	11:25 - 12:25	Transcription Practice
	12:25 - 1:15	Lunch
	1:15 - 2:15	Transcription Practice
	2:15 - 2:30	Break
	2:30 - 3:30	Transcription Practice

Total Vocational Class Hours

Anatomy and Physiology	45
Medical Terminology	45
Disease Processes	45
Laboratory Medicine	30
Pharmacology	30
Professional Issues	30
Surgical Procedures	15
Medical Science	15
Transcription Practice	645
TOTAL CLASS HOURS	**900**

transcripts and return them with errors marked and appropriate comments. Grammar, punctuation, and style errors can be noted and appropriate written materials and lectures planned to cover the problems the students are having. A written summary of the overall errors found and how to correct them can be given to the students for future reference, used as a teaching tool for lecture, and also to help the instructor plan the preliminary lecture for that set of dictations the next time a new class starts.

If there are a lot of students (some schools require every computer in a lab to be filled), having the students compare their own work to the transcript is the only logical way for them to get immediate feedback about their errors. The instructor must be careful in this latter situation to control student access to the transcripts, or some desperate students will simply hold on to the transcript while they "transcribe the dictation" (copy-type perfectly, of course) the second time.

It will no doubt be necessary for some of the slower students, even with these modifications, to do some transcription outside of class. If students are allowed to take the work home, they must have the proper equipment for transcribing. The transcription lab should be available during the hours class is not in session for those students who do not have their own equipment. Student assistants and business education or computer program students on financial aid work programs can be used to monitor the lab when the instructor cannot be present.

After the first two weeks (when some allowances could be made), students should turn in chartable or mailable transcripts every time. With the suggested schedule, students should complete one to two hours of dictation a week in about 15 hours of transcription time (the exceptional student) to 30 hours (the average student). This translates to 20 or 30 hours of transcription time per week.

Keep the pressure on slower students by setting deadlines that are just barely within their reach. Students who have consistently produced good quality work in the lower ranges of production should be employable in doctors' offices, nursing homes, walk-in clinics, emergency departments, and even multispecialty clinics. Those who have produced quality work in the upper ranges of production may be employable in hospitals, assuming that part of the dictation included operative reports.

It is important, at all costs, not to lower your standards of quality to accommodate a short program. Furthermore, allowing students to proceed at their own pace will not work in this setting, nor does it encourage students to improve their speed. No matter how knowledgeable or perfectionistic students are, it will be difficult for students to get jobs if they cannot produce enough work to be worth what the employer is willing to pay.

Two- and Three-Semester Programs

The first semester is a grueling schedule with heavy academic work taught concurrently with beginning transcription. Coordinating each academic subject by topic or specialty with the specialty on the assigned dictation is an absolutely necessity. The introductory material for each academic class can be taught while the students are transcribing, for example, tapes 1 and 2 of *The SUM Program Beginning Medical Transcription Unit.*

Whether you are or are not using The SUM Program dictations, you might wait about three weeks before giving students the first authentic dictations to transcribe. That initial three weeks in transcription lab could be spent making sure students' computer knowledge is what it's

supposed to be, reviewing the class syllabus and procedures, teaching them how to name files and organize their work, orienting them to the field of medical transcription and how it fits into medical records, reviewing formats, introducing reference materials, and giving various screening tests to isolate any deficiencies in English skills. By the third week, students are anxious to begin transcribing, and they are much better prepared.

The second semester has fewer academic courses and a strong emphasis on medical transcription practice lab. The third semester contains only MT lab practice and practicum. In these programs, it is within reason to expect to produce job-ready students with skills necessary for hospital employment.

Additional suggestions for two- and three-semester programs include the following:

• Place more emphasis on reference book skills.

• Have the students write questions on their final transcripts about discrepancies between their work and the transcript keys, questions about style ("Why is this phrase hyphenated here, but not below?"), or medical questions. You can answer their specific questions without having to interrupt the class.

• Keep track of the questions students ask. If questions are repeated, make notes of these and include in future lectures.

• Have a Monday-morning quarterback session (this can actually be any day of the week). It should come between body systems. Before the students turn in their transcripts, go over the transcripts report by report. "Are there any questions on report #1, Side A?" You will be amazed at how much teaching can be done with this technique, and the students will all benefit.

• Prepare a lecture before students go on to the next body system. Don't forget to discuss abbreviations, their proper translation, and the fact that abbreviations have soundalikes, too. Even though students have taken or are taking the academic courses, discuss terminology, anatomy, or medical processes they will encounter in the transcription. For example, on ophthalmology dictation, what exactly does "far point" mean?

All of the above will help you make the most of whatever time you have.

30-Week Vocational Education Program

The sample vocational education program schedule has been arranged to present all of the classroom lectures at the beginning of the week for each new body system being studied. This allows students to learn as much as possible about a body system early in the week, and then to practice transcribing in larger blocks of time near the end of each week. In addition, it helps to familiarize students with the demands they will face on the job from longer hours of transcription time.

How to Sharpen Your Course Syllabus

by Marcy Diehl, BVE, CMT, CMA-A

P reparing a course syllabus is not a new or an original challenge. If you are teaching even one class, the school has already informed you that a course syllabus must be prepared and often asks for a copy of it for the school files.

When I first began teaching, I was given a boiler-plate syllabus to help me write one. It was for an upper division English class, was one page, basically straightforward, and covered what the school "required" in a syllabus: instructor's name, class name, class time and location, required and suggested texts, materials and supplies suggested or required, time and place of office hours, the course objectives, and grading.

Students need to know those things but usually are more interested in when the final exam is given, the final day of class, how to get an A, how to earn extra credit, if you provide make-up work or tests, and your attendance policy. In addition to your office hours and the number on your office door, the students need to know exactly where that office is located and how to reach you, leave a message, or drop off work for you outside office hours. It is a good idea to include a campus map, with the classroom and your office marked. (Don't let it bother you if the students never use it to locate you. They will use it to find other classes, assist lost students, and locate the cafeteria.)

If there are classes that are prerequisites or suggested for completion before taking a particular course, they should be listed. If the course is used as preparation for a certificate or required for a degree, include this information as well. Often a course is one of a series of classes a student will be taking for completion of a program. It should be mentioned that this is the first class or final class or elective for that program.

My advice in preparing a syllabus is to be specific and comprehensive:

- Write down **everything** that is important, including the **required** material and the **extra** information the students need.
- Print it on heavy-duty colored card stock so it is not easily torn, folded, or lost.
- Use different colors if you have more than one section of the same class (e.g., day and evening sessions).
- Don't be afraid to use more than one page; if you need many pages, use them. It is also helpful to color-code pages inside the syllabus to focus on an area—grades, for instance.
- Provide a place in the syllabus where the students can record their own scores.
- Make it attractive, interesting, and easy to read.
- Vary the type sizes, use boldface and underlines.
- Review the syllabus with your students carefully on the first day. (If you have to repeatedly explain something in the syllabus, that is a clue for the next one you write.)
- Worry more about listing too little than too much.
- Give a test on the syllabus the following class period (alert the students to this in advance).
- Refer to it whenever necessary (another alert so they *believe* it is important).
- Remember that you probably never have it perfectly done.
- If it is specific, let the students know that it *may* vary; nothing is ever safe from change.
- Revise it as necessary as the semester progresses.
- Rewrite it immediately when the course is over.

- List materials that will be provided (reference books, scratch paper, diskette, headset).
- Use specific dates (e.g., midterm is . . .).
- Remember this is one of the **most important** handouts you prepare.

Treat the syllabus as a document that is as helpful to you as it is to the students. Use it as a guideline when writing the course itself as it helps you to plan material in a logical order. Decide on good places for review tests or quizzes. Give names to topics. Divide material and homework into blocks.

Some syllabi are easy to write because the classes are straightforward and easy to set up. For instance, my medical terminology syllabus listed the actual date and topic of each lecture, date and title of every test, and homework assignments by date and page numbers. I provided a list of all the tests, including the total points possible for each test. This was followed with the number of points required to earn a specific grade. Exact instructions were given for makeup tests. Not written in, but fully discussed, were the number of A's, B's, etc., awarded the previous semester and the total number of students completing the class. This provides the student with a boost about the likelihood of working for a specific grade. (I got the idea for this from a former teacher who announced on the first day that no one ever got an A in his class because an A was a superior grade and he never had a student who was superior. He described himself and his class in that one small statement. You will likewise make whatever point you want to make by letting students know your grading philosophy.)

Writing a syllabus for beginning transcription was not as easy because there were so many variables: lectures, homework assignments, lab assignments, copy typing, transcripts, reading assignments, extra credit, small tests, and midterms.

Listing everything was easy, but coming up with **dates** was hard since some classes take longer to get through certain projects while others zip right through. Students were permitted to work at their own pace for lab work and copy work, so that had to be listed separately. Students needed constant help in determining which projects were to be done solely at home (so they would not use lab time) and which needed to be completed on a timely basis.

Finally, letting students know how the **scoring** was to be determined was a nightmare. Factored in was the point at which the student began (those with computer experience, for instance, always shoot ahead of those just starting out), English grammar skills, typing speed, time available to work on homework or extra projects, what happened with the makeup project, and so on.

I became a little vague about **grades** (of all things!) until I decided how I could offer some broad percentages that helped them pace themselves and helped me provide the guidance they needed and wanted. I prepared a table listing percentage values for each item: individual review tests, mid-term, final exam, production, special projects, class participation (a sort of loose area that I use to track attendance), homework completed, and so on. This is not as specific as the medical terminology synopsis, but it gives you and the students the parameters needed for successful completion.

Review your syllabus with the students on the next-to-last day of class: Was this body of work completed? Did you know what you needed to know about this class? Were the objectives met? Was the scoring fair? Did I do what I set out to do?

Though writing your course syllabus is likely to be a time- consuming process, the more specific information you include, the more helpful it will be for both you and your students.

Teaching Disease Processes

by Ellen Drake, CMT, AHDI-F

An important skill, if not the most important skill, in medical transcription is the ability to comprehend what the dictator is saying, evaluate it for accuracy and sense, and apply critical thinking skills, when needed, to correct, modify, or edit the dictation. In fact, every word transcribed actually involves decision-making, if not problem-solving. Isn't that the definition of critical thinking? At its most basic level, this skill involves correcting grammatical errors and adding or deleting punctuation. At an intermediate level, it is how we know that what we are typing is correct. At its most advanced level, it is the fine art of transcribing what the dictator means—not just sounds. I say "not just sounds" because so often some will say, "I just typed what he said." But that's not true. What they typed was what they heard. There's a difference.

As a teacher, I've struggled for years with how to teach this skill. What knowledge do we need to impart, what exercises and activities can we develop that will provide students the foundation for this most important skill? At times I've despaired that it can be taught; maybe you either have it or you don't. When I try to analyze what takes place when I problem-solve in transcription, I realize that the process involves the distillation or synthesis of all that I know (about the subject in question). It also requires the quick recognition of clues within the text of the report and the extrapolation of an answer to a question by correlating these clues to my background knowledge.

This, however, is *not* an article on critical thinking; it is an article on how to teach disease processes in a way that helps students develop these problem-solving skills. I believe that a course in disease processes, perhaps more than any other academic course, requires that students correlate and integrate existing knowledge with new knowledge. The methods I discuss will help your students integrate what they already know with what they are learning. These techniques suit different learning styles and require students to be *actively* involved in learning, rather than memorizing facts just to regurgitate them for a test. Students need a thorough understanding of disease processes, including diagnosis, treatment, and outcomes, in order to make the kinds of decisions that are required almost moment-by-moment while transcribing medical dictation.

Too often, it's taken for granted that students will learn about disease processes through the combination of terminology/anatomy study and transcribing. Certainly, that's the way many of us learned it on the job. But that was then; this is now. Medicine is entirely too complex to leave something this important to chance. I'm awed, as are others in our field with whom I've talked, by the numbers of new disease entities, operative procedures, and diagnostic techniques today that were unknown when I started transcribing over three decades ago. We cannot use 30-year-old training techniques to prepare students for a profession as scientifically complex as medical transcription is today.

A formal course in Disease Processes *or* Human Diseases should be included in every transcription training program. Begin the course with a brief overview of pathophysiology of the human body and the diagnostic process. A cursory review of structure and function should be followed by detailed study of prevalent diseases of each system. Infectious diseases, genetic diseases, and cancers may be covered separately or by body system. For each disease entity, the student should learn its etiology, symptoms, clinical presentation (physical findings), relevant diagnostic studies, and its treatment and course. Diagnostic studies include not only laboratory tests but imaging, invasive diagnostic procedures, and patho-

logical investigations. The student should learn both normal and abnormal laboratory values and the implications of the abnormal values when found. The study of treatment should be detailed; for example, it's not enough to simply say an infectious process is treated with antibiotics. Different antibiotics are used to treat a GU infection than those used to treat a URI.

Class Activities

Oral Presentations: Everyone has been ill at one time or another, and they all like to talk about it. This can be used to advantage in class if such discussions are controlled by specific guidelines. At the beginning of the term, have students complete an information form that includes the usual questions in addition to listing any disease(s) with which they are intimately familiar. The student need not have had the disease; their knowledge could come from a relative, close friend, or other healthcare work experience (since many MT students cross over from other health-related careers). They should be told not to reveal any personal, private, or confidential details on their information sheet or to the class.

Each student, over the course of the semester, can prepare an oral presentation on the disease they know the most about. Require them to do some additional research to fill in gaps in their knowledge. If the disease was one of those covered by the textbook, they must find out something about it that was not included in the textbook description. Have them give their oral presentation during the week the pertinent system chapter is discussed in class.

If the oral presentations are given at the beginning of each class, they help draw students' attention away from outside activities and focus it on the current class. Some of the presentations will be moving; relatives, even children, may have died or are dying from the diseases being discussed. To keep the presentations from being maudlin, focus on the objective presentation of the information. You can allow for a small amount of discussion about the effects of serious illness on quality of life for the patient and family as well as a discussion of support services and agencies available for specific conditions.

After the students give their presentations, discuss specific points and terminology that might appear in dictation. If a student presents data that is questionable, ask for a source for that piece of information and discuss whether the source is reliable. Discuss things that affect the outcome of clinical studies, such as cause and effect, comorbid conditions, placebo effect, and coincidence.

If time constraints don't permit individual oral presentations, allow students to work in groups. Group presentations may be straightforward oral reports or may take the form of skits, such as radio talk show format, a medical conference, a hospital's publicity director reporting on the progress of a "famous" ill patient, or a doctor being interviewed by the media.

Internet Activities. The Internet is packed with information on diseases. Prior to assigning research activities, however, discuss how to evaluate the quality and accuracy of information found on the Internet. Also, encourage students to access content written for healthcare workers rather than that written for patient education. Sometimes the professional sites require registration and even the payment of fees, but there is a great deal available for free.

It isn't sufficient just to ask the students to "write an essay" on their research. They need to use the data in some substantial way that simulates the type of problem-solving they may be required to do in transcription. Prepare students for their Internet research assignment with specific questions to answer, such as "What is the prevalence of _____ disease in the U.S. population?" "Are men or women more at risk of acquiring or dying of this disease?" "Why?" "Is age a factor?" "Ethnicity?" "Is the illness hereditary, congenital, acquired, immunological, the result of life style factors, etc.?"

It is important that students incorporate new learning into the knowledge bank gained from other academic courses. This is done by correlating (comparing and contrasting) new information with old, by making logical connections (e.g., if this is true, then that is also true or not true), and by applying new and old knowledge to evaluate new data or circumstances.

The Internet abounds with case studies which you can use to develop analysis and decision-making skills in students. A Google search for *"case studies"* (in quotation marks) plus *medical* yields 4.5 million pages. To find case studies that correlate with the chapters in the textbook, you could search for "case studies" plus the body system being studied. *"Case studies"* plus *gastrointestinal* yields over 77,000 pages; plus *cardiology* yields 108,000 pages. Students should proceed through case studies in a step-by-step fashion.

For example, break the case study down as follows: Give the students the patient's presenting symptoms and past history. Then ask questions such as "Based on the patient's history, list three possible diagnoses." "What physical findings might you expect to find or not find?" Next, give them the physical examination findings and ask, "How does this new information change your differential diagnoses?" "What laboratory studies and other diagnostic procedures would you order to further narrow the possibilities?" After giving them the diagnostic findings, proceed with similar questions about how these findings narrow the diagnostic possibilities. "Can you make a definitive diagnosis now?" "If not, what other diagnostic procedures might be necessary?" Finally, ask "How would you treat this illness," and "What is the expected course and prognosis of this patient's illness?"

If you are teaching this course concurrently with transcription, have the students research the specific illnesses or procedures that appear in the reports they will be transcribing. Questions for this activity might elicit specific terminology and information that they will encounter in the dictation itself, especially if the dictations require some editing. For example, if the dictator uses "varicoces" for "varices" and "recannulization" for "recanalization," you could have the students research the prevalence of these spellings on a Google search, evaluate the citations, and determine which spellings are correct and why.

An Internet "scavenger hunt" can be fun and educational. This requires a little more work on your part because you have to come up with the "objects" (information) to be found. Review the dictation that goes with the system being studied, making a list of key terms, especially any unusual expressions that may be difficult to find in standard references. These might include things like "find the word *angry* used to describe the appearance of a lesion," or "find the word *mouse* used to describe a loose body in a joint." The student who finds all the "objects" first wins a prize, gets extra credit, or gets to skip a quiz.

Textbook Activities. Most human disease textbooks treat each disease as a separate entity. There is little to no integration, other than that all the diseases in a chapter affect a particular body system. This may be useful in terms of using the textbook as a later reference, but it doesn't do much to teach the students to problem-solve.

An activity, excellent for small groups, that helps students evaluate similarities and differences between illnesses affecting a single body system is to have them prepare a **chart** that lists the diseases down the left-hand column. Additional columns can be added for symptoms and physical findings, listing these across the top. The students can then place a check mark in each column that applies for each disease, something like comparing the features of competing products. When finished, they have

a visual study guide summarizing and comparing the symptoms and physical findings of the diseases studied for that system.

A **mind map**, a visual representation of knowledge, is a good way for a student to take notes and summarize key points in a chapter or those related to a particular disease. This activity is also excellent for groups. One mind map might consist of a rectangle centered at the top of a page. Inside the rectangle is the name of the body system being studied. Draw lines from that rectangle to additional rectangles, one for each disease studied. From the disease rectangles, draw additional lines and boxes for symptoms, physical findings, differential diagnoses diagnostic procedures, and treatment.

Have a student group work on a super-sized mind map, perhaps using poster board or several feet of paper from a roll of freezer wrap or banner paper, and hang their maps on the walls for study and review. This type of mind map is also useful for comparing and contrasting diseases as well as for analyzing case studies. In a mind map for a single disease, the disease name may be in a rectangle or circle in the middle of the page with the added topics radiating out from the center. These activities can be adapted for on-line student groups who create "electronic posters" to be displayed on the class Web site. Pie charts, good for comparing epidemiology, and graphs also appeal to visual learners.

Testing. Multiple-choice questions are fine for preparing students to take standardized tests (such as part I of the CMT exam), but try to prepare at least some questions that require the students to apply what they've learned, not just regurgitate facts. Careful wording of multiple-choice questions can call for a certain level of decision-making. Some examples of excerpts from dictation are as follows (the distractors resemble the correct answer in sound, not meaning):

However, only essay questions can really demonstrate a student's grasp of more complex issues. As difficult as these are to grade, essay questions serve two purposes: (1) They require the student to practice problem-solving, organize knowledge, and think and write logically; and (2) they test the student's understanding of the material studied. In the box below are examples of essay questions that challenge a student's reasoning abilities.

Critical thinking activities and challenges should be incorporated into every academic subject in the medical transcription curriculum, but without the knowledge base afforded by specific and focused study of human diseases, teaching students to make the innumerable decisions necessary for the accurate transcription of a single report, much less a lifetime of work, is like transcribing with one hand tied behind your back.

Web Sites for Teachers and Students

http://www.emedicine.com/specialties.htm
http://www.medscape.com
http://www.fpnotebook.com/index.htm
http://www.casepath.org/
http://www.labcorp.com/datasets/labcorp/html/chapter

Sample Multiple-Choice Questions

1. The blistering is typical of _____. I would go ahead and give her 2 million q. 6 h. of the penicillin and modify therapy according to culture report.
   A. strep
   B. straps
   C. stress
   D. stretch

2. Urologic evaluation revealed a blockage in the right _____, and this was "cleaned out" cystoscopically, at which time scar tissue was found.
   A. urethra
   B. ureter
   C. uterus
   D. urachus

3. Physical examination showed, covering most of the back and also the medial central buttocks, confluent, erythematous, scaly _____ with some crusting. Similar _____ were also present on the anterior legs. (Both blanks are the same word.)
   A. wax
   B. packs
   C. flacks
   D. plaques

Sample Essay Questions

1. Compare and contrast the methods of transmission of Lyme disease, chickenpox, syphilis, and the common cold. What methods can be used to control transmission of these diseases? In your opinion, which of the diseases might be the most difficult to prevent, based on the method of transmission. Why?

2. What are the risk factors for HIV and AIDS? In terms of reining in the AIDS epidemic, do you think prevention or treatment is more important? Justify your answer.

3. The abbreviation *PDA* can stand for *patent ductus arteriosus* or *posterior descending artery*. What information in your study of the chapter on cardiovascular disease can help you determine which translation to use in Excerpts 1 and 2 on the following page? What were the clues that helped you make a decision?

Excerpt 1

This echocardiogram was obtained from a 3-hour-old twin infant with a cardiac murmur and cyanosis. . . . There is evidence of retrograde diastolic flowing in the main pulmonary artery, indicating the presence of a PDA. In addition, there is evidence of moderate tricuspid regurgitation. There is also evidence of left-to-right shunting across the interatrial septum.

Excerpt 2

PROCEDURE PERFORMED
1. Left heart catheterization.
2. Left ventriculogram.
3. Coronary artery angiography.

The right groin was prepped and draped. . . . The RCA is a dominant artery. It gives off a large PDA and posterior left ventricular branches; both branches are widely patent.

Human Diseases *or* Disease Processes
Course Description

Course Description: A comprehensive study of disease processes (causes, symptoms, diagnosis, and treatments), organized by body systems.

Recommended Prerequisites/Concurrent Courses: Anatomy and Physiology, Medical Terminology.

Recommended Course Length: 45 hours (3 hours per section).

Course Objectives

1. Describe how diseases are named and classified.
2. Identify common genetic disorders.
3. List common infectious diseases.
4. Define *immunity* and identify common immunological diseases.
5. Define *neoplasia* and differentiate between *malignant* and *benign*.
6. Identify common traumatic injuries.
7. Identify common diseases for each body system.
8. Pronounce and spell common disease names.
9. Define common abbreviations for symptoms and disease processes for each body system.
10. Identify methods of diagnosis for each disease studied.
11. Distinguish between normal or physiologic and abnormal findings on laboratory tests and imaging studies.
12. Identify methods of treatment, including surgical, for each disease studied.

SECTION 1: THE NATURE OF DISEASE; DISEASES OF THE SKIN

1. Introduction to course and overview of contents.
2. The nature of disease; how diseases are named.
3. Common disease terms.
4. Anatomy and physiology of the skin.
5. Signs, symptoms, and diagnostic procedures of the skin.
6. Diseases and disorders of the skin.

SECTION 2: GASTROINTESTINAL DISEASES

1. Anatomy and physiology of the digestive system.
2. Signs, symptoms, and diagnostic procedures of the gastrointestinal system.
3. Diseases and disorders of the digestive system.

SECTION 3: TRAUMA AND POISONING

1. Types of trauma.
2. Poisoning.

SECTION 4: DISEASES OF THE RESPIRATORY SYSTEM

1. Anatomy and physiology of the respiratory system.
2. Signs, symptoms, and diagnostic procedures in respiratory diseases.
3. Diseases and disorders of the respiratory system.

SECTION 5: DISEASES OF THE CARDIOVASCULAR SYSTEM; DISORDERS OF BLOOD CELLS AND COAGULATION

1. Anatomy and physiology of the cardiovascular system and blood.
2. Signs, symptoms, and diagnostic procedures of the cardiovascular system.
3. Diseases and disorders of the cardiovascular system.
4. Disorders of blood cells, blood-forming tissues, and coagulation.
5. Diagnostic procedures in hematologic disease.

SECTION 6: DISEASES OF THE EARS, NOSE, THROAT, AND EYES

1. Anatomy and physiology of the ears, nose, throat, and eyes.
2. Signs, symptoms, and diagnostic procedures of the ears, nose, throat, and eyes.
3. Diseases and disorders of the ears, nose, throat, and eyes.

SECTION 7: GENETIC DISORDERS; DISORDERS OF METABOLISM, NUTRITION, AND ENDOCRINE FUNCTION

1. Disease features and procedures diagnostic for hereditary diseases, disorders, and chromosomal abnormalities.
2. Anatomy and physiology of the endocrine glands.
3. Physiology of metabolism and nutrition.
4. Disorders of the principal endocrine glands: pituitary, thyroid, parathyroid, adrenal.
5. Disorders of the pancreas.

SECTION 8: DISEASES OF THE EXCRETORY AND MALE REPRODUCTIVE SYSTEMS; SEXUALLY TRANSMITTED DISEASES

1. Anatomy and physiology of the excretory system and male reproductive system.
2. Signs, symptoms, and diagnostic procedures of the genitourinary system.
3. Diseases and disorders of the male reproductive system and excretory system.
4. Sexually transmitted diseases.

SECTION 9: THE FEMALE REPRODUCTIVE SYSTEM; BREAST DISEASES

1. Anatomy and physiology of the female reproductive system and breasts.
2. Signs, symptoms, and diagnostic procedures of the female reproductive system and breasts.
3. Diseases and disorders of the female reproductive system and breasts.
4. Pregnancy and childbirth.

SECTION 10: MUSCULOSKELETAL DISORDERS

1. Anatomy and physiology of the musculoskeletal system.
2. Signs, symptoms, and diagnostic procedures of the musculoskeletal system.
3. Diseases and disorders of the musculoskeletal system.

SECTION 11: INFECTIOUS DISEASES

1. The concepts of infection and immunity.
2. Transmission of infectious diseases.
3. Infecting organisms.
4. Diagnosis and treatment of infectious diseases.

SECTION 12: DISEASES OF THE NERVOUS SYSTEM

1. Anatomy and physiology of the nervous system.
2. Signs, symptoms, and diagnostic procedures of the nervous system.
3. Diseases and disorders of the nervous system.

SECTION 13: PSYCHIATRIC DISORDERS

Mental disorders and psychiatric illness.

SECTION 14: THE IMMUNE SYSTEM

1. Function of the immune system.
2. Immunodeficiency, autoimmunity, and allergies.
3. Signs, symptoms, and diagnostic procedures of the immune system.
4. Diseases and disorders of the immune system.

SECTION 15: NEOPLASIA

1. The nature of neoplasia.
2. Common cancers and warning signs.
3. Diagnosis and treatment of malignancy.

Teaching Professionalism and Ethics

by Ellen Drake, CMT

Is there any medical transcription program that has enough time to present everything the student needs to know before embarking on that first job? Probably not. It is impossible to teach medical transcription without daily touching on topics that might be included in a course n professionalism. The question becomes, Are we doing justice to our students and to the topic of professionalism with our informal and rather casual approach? What is lost when we teach professionalism only in a spontaneous manner?

When I was teaching medical transcription, discussions with the students often centered on the issues included in the outline for a course on professional issues (see box). But when I examined our program, the lack of a formal course in which to place these discussions resulted in incomplete coverage or outright omission of important topics. Our program did not provide the students with a structure for short-term recall, long-term retention, or implementation of concepts learned.

A Course Is Born

Thus, a Seminar in Medical Transcription was born, taught concurrently with the students' practicums or internships. I liked the idea of calling the course a seminar. Two definitions of *seminar* seem to apply: a small group of advanced students engaged in original research or intensive study under the guidance of a professor who meets regularly with them to discuss their reports and findings, and a meeting for an exchange of ideas. The Seminar in Medical Transcription emphasizes the students' involvement in the learning process, and encourages the students to take responsibility for continuing their education outside the classroom setting.

The course is taught during the last semester of a four-semester program, although it is short enough to be included in many smaller programs. Initially, there was not time to go through the bureaucratic paper trail to have it approved as a separate course, so it was simply included in the practicum. The following year, we submitted a course description, outline, and justification, and the course was added to the program.

The class is scheduled for three hours a night, once a week for eight weeks. The students are also required to attend two local chapter meetings of AAMT (American Association for Medical Transcription). Thus, the course is a total of ten nights, or 30 hours of vocational credit, the equivalent of a two-credit academic course. However, it could easily be adapted to a 12- or 15-week schedule, with more topics covered, more in-class assignments, and more class discussion. Because the class is taught concurrently with the practicums, one-half hour each night is allowed for students to bring up problems, learning moments, and victories associated with their practicums.

Just before the end of the prior semester, the requirements for the seminar class are discussed in detail with the students. There is a several-week break between semesters, and many students, surprisingly, begin working on their assignments during the break. There are five primary requirements:

• Reading of two articles per week on relevant topics in magazines and newspapers, with a summary of each article and bibliographic information written on a 5" x 7" index card. The same

Course in Professional Issues

1. Continuing education

2. Quality versus quantity
   a. Quality assurance techniques
   b. Methods of measuring quantity
   c. Achievement of quality and quantity

3. Compensation and benefits
   a. Compensation: hourly wage, wage plus incentive, incentive pay only
   b. Benefits: health insurance, vacation, sick leave, holidays, retirement, flexible scheduling

4. Issues in home transcription and telecommuting
   a. Working conditions and hours
   b. Fair compensation
   c. Questions of confidentiality and professionalism

5. Changing technologies
   a. Voice recognition
   b. Computer-based patient record
   c. Multimedia reports (photos, slides, x-rays)
   d. Advances in dictation technologies
   e. Software for improved productivity
      1) Advantages
      2) Dangers
   f. Ergonomics
      1) For increased productivity
      2) For prevention of injury

6. Work environments-pros and cons
   a. Services, hospitals, doctors' offices, clinics, home
   b. Employee, employer, subcontractor, free lance
   c. Alternative careers (supervision, teaching, writing, dictating for doctors, working for attorneys)

7. Importance of joining a professional association

8. Interpersonal relationships
   a. Communication skills
   b. Criticism-giving and receiving

(continued)

Course in Professional Issues *(continued)*

9. Professional appearance and behaviors

10. Ethics
    a. Reporting hours worked and productivity
    b. Reporting others' abuses
    c. Altering medical records

11. Medicolegal issues
    a. Confidentiality of medical record
    b. Confidentiality of business management affairs
    c. Liability of the medical transcriptionist
    d. Scams and shams
        1) Liability insurance
        2) Errors and omissions insurance

12. Editing practices
    a. Grammar, punctuation, and format
    b. Medical accuracy
    c. Style-tampering with style of the dictator

13. Stress management

14. Employment
    a. Job hunting
    b. Resume preparation
    c. Application letter
    d. Interviewing skills

15. Parliamentary procedure

source cannot be used more than twice, and students are encouraged to read magazines not written for the lay public.

• Perfect attendance (the course is only half a semester long). The only excuse for absence is death—the student's, not anyone else's!

• Attendance at two AAMT chapter meetings, with a summary of the speaker's talk suitable for publication in the local chapter newsletter. All summaries are submitted to the local chapter newsletter editor, who prints one in each issue.

• A research article of 5-10 pages, typed and double-spaced, on some medical, technological, or professional topic of relevance to medical transcriptionists, again suitable for publication. (Students

are also encouraged to submit their articles to *Perspectives* or the *Journal of AAMT* for publication.) A minimum of five references (magazine, newspaper, book, video, or personal interviews) is required, but no more than two references can be of the same type.

• Research of avenues for continuing education available through the internship site, such as tumor board meetings, residents' educational meetings, public meetings offered by hospitals as community service, or videos through the education department of a hospital. These resources are compiled into a calendar or reference list and distributed to the class.

Variety Adds Spice

On the first evening, course requirements are reviewed and students receive a brief but detailed quick course on writing skills and reading critically. By analyzing numerous samples of writing, students learn how to watch for emotionally loaded words, imprecision, vagueness, hidden agenda, and bias.

Since there are no books available for the course, past issues of *JAAMT* and *Perspectives*, as well as other medical journals such as the *Journal of AHIMA*, and newspapers are scoured for relevant articles. Also available as resources are such HIM periodicals as *For the Record* and *Advance for Health Information Professionals*. Sometimes the students might read and evaluate articles in groups; other times they might do the readings on their own outside of class.

Other suggestions for activities in a course in professionalism and ethics include the following:

1. Assign articles on issues that appear in the course outline *(see box)* to individual students or to groups. If assigned to individuals, each student might write a one-page reaction essay or an analysis of one to two pages comparing two or more writers on the same issue, preferably two who writers with differing opinions or points of view. If there is enough class time, these reports can be given orally for extra credit. Issues such as professional attire, criticism, communication skills, and quality assurance work well for this format.

If assigned as a group, the students may present a panel discussion to the class or stage a debate with two students who are strong speakers. Each of the other members of the class should write a response to the debate, itemizing the pros and cons, good points made, and who won. More controversial issues such as the quality versus quantity debate, incentive pay, and home-based transcription can be used for this activity. This format allows for several issues to be presented simultaneously and for all the class to benefit from the discussions without necessarily having read the material.

2. Divide the class into groups. Assign each group an issue to research and prepare a brief presentation. Using a radio or TV talk-show format and the remaining students in class as an audience, discuss the various sides of the issue. This works best if the students presenting the topic have composed some questions ahead of time and have given them to individuals in the audience may “call in” with their questions. There may also be some spontaneous questions elicited. Issues such as voice-recognition computers and the computer-based patient record work well here.

3. If class time permits, divide the class into groups and assign each group a different article on the same topic-editing, for example. The groups may elect someone to represent them and give an oral summary of the salient points to the rest of the class.

4. After students read an assigned article, have them write one to three questions focusing on the main points. Questions can be discussed by the entire class, in small groups, or included on quizzes.

5. Ask a local authority to come to class to lecture. This can be an attorney, a physician on the board of a malpractice insurance company, a hospital supervisor, a service owner or supervisor, or a self-employed home-based transcriptionist. The recruitment and scheduling of this speaker is a good project for the students. Encourage the students to prepare pertinent questions the students to prepare pertinent questions for the guest. If the guest is an attorney, for example, the speaker might present some brief introductory remarks, and the students some "what if" scenarios. You may need to put restrictions on some questions to hospital supervisors or service owners, such as "How much do you pay?"

6. Ask students to interview three or more medical transcriptionists (MTs). They might ask questions such as the following. What type of training or education in transcription did you have? What other types of jobs have you held? Did any of those jobs help prepare you for, or contribute to, your skills as an MT? If you weren't an MT, what would you like to do? Are you planning for a career change, and, if so, to what? The students might also choose to answer the same questions as far as applicable. Ask the students to write a report on the answers, starting the paper with a premise. You might ask, what did you as the interviewer expect to find? For example, the premise might be "Many MTs did not plan to be MTs," "MTs have an independent streak," or "MTs are always learning." The students might summarize their answers by question or by individual, ending their paper with a conclusion. You might ask the students if their premise was accurate or did they have to change it? What did they discover about working medical transcriptionists?

7. Have the students interview three supervisors of MTs—one hospital, one service, and one radiology, pathology, or clinic supervisor. They might address such topics as expected minimum employment skills, long-term expectations, standards of quality and productivity, pay scales and incentive plans, if any (ask for generalities, not specifics), and attitudes toward hiring students and entry-level applicants. Have the students write papers on their findings.

8. Using role playing and dramatization, have groups of students present skits illustrating both good and bad examples of interpersonal relationships, how to give and receive criticism, what to do if asked by a neighbor, friend, and coworker for confidential information, or what to do on overhearing or witnessing unprofessional behavior from a coworker.

9. Have the students form an ersatz medical transcription club, elect officers, appoint committees, and conduct board of directors meetings and general meetings using Robert's Rules of Order. This can be fun because the names of committees and motions can be outlandish.

10. In the area of ethics, confidentiality, and medicolegal concerns, in addition to any of the above activities, give students made-up or actual case studies with certain key points omitted. Ask them to describe their behavior under such circumstances and justify it, or discuss the behavior of those involved in the situation. What are the variables contributing to the complexity of the case?

For example, if an incident happened in the cafeteria, would it have been different had it occurred in the medical transcription department or in the supervisor's office? What other responses are possible? What might be the result of such responses? After a thorough discussion of the incident, would the student's response be different than the student first indicated?

Students have responded to the class with unexpected enthusiasm. Class participation was encouraged and reinforced from the beginning, so group activities, oral presentations, and even dramatizations met with no resistance from the students. Student participation in the local professional association was numerically and qualitatively better than ever before.

The class enjoyed sharing moments of success during their practicums. One student told the story of an employee unable to find a word in the dictionary. When finally asked to assist, the student was able to tell how to find and spell the word (the word had been on the research skills portion of her final exam). Problem situations were discussed by the class as a whole, with suggestions for good solutions coming from the students—not the instructor.

A Final Point

It is important not to "over-feed" the students. Force them to read critically, think critically, evaluate, discuss, make judgments, and make decisions regarding the materials and topics that are presented. Ask questions without implying the answers. Resist the urge to tell them what to think. If they seem to be following the party line or letting other students think for them, challenge them to defend their position. You may occasionally want to enlist the help of a well-spoken student to act as a goad or antagonist if too many seem to be just following the leader and not making up their own minds. This does not mean, however, that their decisions and opinions are necessarily correct (as in situational ethics).

There are moral and ethical absolutes, not to mention legal requirements, inhrent in their chosen profession. You should certainly try to lead students to ethical and moral judgments, but only at the end of a discussion or at the end of the course should you offer your opinions on issues other than ethics, confidentiality, and medicolegal issues.

A well-planned course in professionalism and ethics encourages life-long learning, fosters professional attitudes at the beginning of a student's chosen career, and promotes criticial thinking skills and sound judgments. Teaching professionalism and ethics is the best thing we can do for our students.

Teaching Medicolegal Issues

by Janet Stiles, CMA-A

Probably the best thing you can do as a teacher is to impress on your future transcriptionists their responsibilities, liabilities, and areas of risk. The importance of maintaining the strictest confidentiality should be emphasized regularly. Students should not even be interested in what patient information is acceptable to reveal. "Just don't say anything ever" is the best policy.

Editing of medical documents should be conservative and appropriate; if ever in doubt, ask the dictator, don't guess. Furthermore, medical transcriptionists have a responsibility to their employer, be it physician or hospital or transcription company, to work cooperatively to protect them from risk by producing the highest quality, most accurate, and complete transcripts possible.

Confidentiality of the Patient Health Record

Because of the confidential relationship between the patient and the physician, the health record concerning this relationship must remain confidential. Only in the course of treatment and completing these records should anyone else have access to these records, and none of the information regarding these records can be discussed outside of the treatment area or after completing the chart.

Confidentiality and security of patient health records are especially important for the medical transcriptionist to remember. Medical transcriptionists have been sued for violation of patient confidentiality.

Most hospitals require medical transcriptionists to sign a confidentiality statement upon hiring, and violation of confidentiality agreements is grounds for immediate dismissal in many facilities. The hospital will not support a transcriptionist who violates the agreement. The transcriptionist would be required to pay the damages if found guilty of violating confidentiality. For the transcriptionist working at home, it is important to clear the screen when someone interrupts so that confidential information cannot be read by someone coming into the office.

Ownership of patient health records rests with the medical facility or physician's office originating the records. It is important for the owner to be responsible for the records' confidentiality and maintenance. Whoever is responsible must be sure to have procedures in place for the retention and storage of patient health records.

During the past few years, the patient has had more access to the medical record than in the past. Unless the record contains information that could be harmful to the patient, many physicians will allow patients to have a copy of their own medical record.

Due to the rise of computer technology, government agency access in some cases, and computerized patient records, the maintenance of confidentiality is a larger problem than ever before. Electronic signatures on records have not been tested in the courts even though some hospitals are using them, so new precedents will soon be made.

Patient's Rights

The Hippocratic Oath protects the rights of patients without penalty to the physician and appeals to the higher instincts of the physician. In 1973 the American Hospital Association produced "The Patient's Bill of Rights" to inform patients of rights they have but of which they might not be aware.

To help teach this concept to students, the instructor may show "The Patient's Bill of Rights" in either handout form or transparency. Having the students read each numbered patient right aloud and state whether they knew of this right usually brings forth some lively discussion.

This is a good place to further discuss the right to privacy, which also includes the right of the patient not to be photographed without express written consent.

Some students are shocked to learn that a patient has the right to refuse treatment. For example, persons with religious beliefs prohibiting blood transfusions have the right to refuse treatment, even if their condition is considered life-threatening.

The right to refuse treatment is superseded in cases where the parents refuse treatment for a minor. Usually a court order from a judge is necessary, with the concurrence of two physicians stating the treatment is necessary to prevent harm to the child. This is usually reserved for emergency cases or cases that would be detrimental to the child's health.

To prevent being sued, it is better if the physician have the patient sign a "Refusal to Submit to Treatment" form.

Health Records as Legal Evidence

The medical record is a legal document. It serves as a basis for protection of patients and evidence for litigation.

At times, records are subpoenaed for the court. A subpoena means *under penalty* and requires an individual to appear in court at a required time under penalty. A *subpoena duces tecum* requires a person to appear in court and bring either records, documents, books, or other items under their control. At the time the subpoena is served, a request can be made for a deposition fee, a fee for copying the records, and an administration fee. If not requested at this time, the fee is waived and cannot be requested again. The *subpoena duces tecum* usually requires that the person who brings the records take an oath that the records are complete and genuine. The person may be required to state how the records are kept, any corrections made to them, and other information relating to the records.

The medical record must be as free of errors as possible and use only those abbreviations understood by everyone. Many hospitals have an approved abbreviation list, but this is not as well controlled in physician offices. When called into court, medical transcriptionists will be glad they took the extra time to be complete, instead of transcribing something like "This is a 58 yo A.-Amer. who was seen today for SOB, CHF, and longstanding ASHD of 1 w duration."

A hospital attorney speaking to a group of transcriptionists in Florida wanted to emphasize the importance of accuracy in medical transcription and the impact of even insignificant errors on the credibility of a physician in a malpractice case. She held up a piece of posterboard with a small portion of a report enlarged to fit the board and said, "When you make a mistake on a report, this is what we make it look like to the jury."

Any errors that are corrected after the report has been signed by the physician must be so noted with date and initials, likewise for any information added or deleted from the record. Any attempt to falsify medical records for concealment purposes is illegal and a criminal offense.

The computerized medical record poses new problems in regard to access to the record, who is authorized to make changes, and who is informed of the changes. This is not as well regulated in the physician's office. Within the next few years, there will probably be new legislation to regulate access to patient records.

The question always arises, Can medical transcriptionists be sued for errors and omissions? Most lawyers are of the opinion that the legal doctrine of *respondeat superior* or "let the master answer" makes the physician responsible for reading all of his medical records and signing his name only if they are correct. However, this seems a complex doctrine, and the courts usually decide on a case-by-case basis. It is best for the medical transcriptionist to produce as near-perfect copy as possible.

Informed Consent

To be valid, informed consent by the patient must meet these criteria: (1) the patient must be competent, (2) sufficient information must be offered and the patient must comprehend that information, and (3) the decision must be voluntary. All adults of legal age are considered competent unless ruled by a court to be incompetent.

Informed consent includes the purpose of the procedure, nature of the procedure, most commonly recognized risks, alternative treatments, and probability of success of the procedure. It is the responsibility of the physician to obtain informed consent since it is the physician who will be performing the treatment. At times, a medical transcriptionist may be asked to sign an informed consent form for the physician. By signing this form, the medical transcriptionist is not giving the information necessary for informed consent, but is merely confirming that the patient comprehends the stated information. The patient agrees to the procedure by signing the informed consent statement.

Case Study. A patient consented to a laminectomy, excision of a portion of the spinal column. The court found as a fact that the patient did not understand what laminectomy meant. If the patient did not understand the meaning of laminectomy, the court reasoned that the patient could not have understood what was involved in the procedure. The patient was paralyzed after the operation. Paralysis is a complication of a laminectomy. The court found that there was no evidence that the surgeon indicated to the patient that paralysis could be a result of surgery. The court found that there was no informed consent and that the surgeon was liable.

For informed consent, physicians are now beginning to use certain computer programs which show the patient the procedure, and then quiz the patient to see if he/she understands. Sometimes the physician will even videotape the informed consent session with the patient, after first getting permission for the taping.

There are two instances in which a minor (a person under the age of 18) may give consent. The first instance is when the minor has been declared by the courts to be an emancipated minor (minors no longer under the care of their parents). Examples would be those in the armed services, mothers and mothers-to-be, divorced, and those financially independent and not living with their parents. In some states, mothers and fathers under the age of 18 can give consent for their children. The second instance in which a minor may give informed consent is when the minor is seeking treatment for substance abuse, rehabilitation programs, contraceptives (including birth control pills), and abortions.

In emergencies, it is sometimes necessary to obtain consent over the telephone. This requires that the date, time, name of the consent giver, relationship to the patient, and the names of two witnesses who heard the consent given be recorded in the patient's chart. As soon as possible, the consent giver is asked to sign the consent form. In cases of minors with divorced parents, consent is usually given by the parent who has custody of the child.

Release of Information

Because of its confidential nature, a patient has to sign for any release of medical information. The patient can even restrict what part of the medical record will be released.

It is important for the medical transcriptionist who might be involved in releasing records to make sure that the release form is signed before the record is released to the designated person or company. Many times lawyers will appear with a hand-carried copier, demanding access to the records. However, even if the lawyer has a signed release, enough reasonable time must be allowed to locate the records. Also, the policy of the hospital may require that the record be copied only by hospital personnel. A reasonable charge for the copying is usually charged to the person picking up the records with the signed consent form.

Malpractice

Malpractice is considered to be professional negligence. To understand negligence, "standard of care" should be understood.

Standard of care is that skill that a reasonable and prudent physician would use in performing acts that other reasonable and prudent physicians with the same education would use performing acts in that community. It also means the physician would not perform those acts that other reasonable and prudent physicians with the same education would not perform in that community.

To bring a charge of negligence against a physician, the "four D's of negligence" must be proven by the patient. Usually monetary compensation is awarded for injuries if the patient proves negligence.

1. *Duty owed.* The physician owed a duty to the patient.
2. *Duty breached.* The patient-physician relationship exists. The patient must prove that the physician failed to comply with the *standard of care*.
3. *Direct cause*. The actions of the physician were the direct cause of the patient's damages or injuries because of the duty breached.
4. *Damages must exist.* This refers to the patient's injuries.

The following case study illustrates the four D's of negligence.

Case Study. A patient visited his doctor because of chest pains. While in the office, an electrocardiogram was taken. The physician did not tell the patient about the results nor did he prescribe rest or other treatment. A week later the chest pains recurred, were more severe, and the patient called the doctor. The physician told him to go to the hospital. The doctor did not tell him to go in an ambulance. The patient walked down several flights of stairs and rode to the hospital in his own car. Examination revealed that he had a heart attack several days before, and open heart surgery was necessary to repair the heart damage. The patient sued and recovered damages from the physician. The court held that a duly careful, reasonably prudent physician would have told his patient about the electrocardiogram results and would have hospitalized the patient immediately.

Another doctrine which is a part of negligence is called *res ipsa loquitur* or "the thing speaks for itself." This usually applies to things left in the body as a result of surgery, or burns from heating treatments, or injury to a body part not involved in treatment.

Hospital, Physician, and Employee Liability

Hospitals are divided into three classes: nonprofit hospitals, public (government) hospitals, and private hospitals. Success in recovering damages for negligence may depend on the type of hospital from which an individual is trying to recover. At times charitable hospitals have been found to be immune from negligence of its employees. But there is a conflict in some states.

A military hospital or one owned by the government cannot be sued without the government's consent. If a military person dies in a military hospital due to the negligence of the physicians at that hospital, the patient's family cannot recover damages because the United States government cannot be sued. State or local government hospital employees have to pay for any proven charge of negligence against them as individuals, as damages cannot be collected from the hospital.

Unlike government hospitals, private and nonprofit hospitals are a part of the *respondeat superior* or "let the master answer" doctrine, and they are responsible for their employees. However, sometimes the defendant will sue not only the hospital but also the individual employee. When more than one person has been the cause of injury to a patient (said to be a *proximate cause*), this doctrine is called *joint and several liability*. This affects hospital hiring practices, and personnel offices look very closely at employees and the physicians they allow to be on staff.

Not only do physicians need liability insurance for themselves for protection against paying attorney fees, damages, and court costs if they lose a malpractice suit, but, because of the *respondeat superior* doctrine, they are responsible for the actions of their employees as well.

Employees should not always rely on the employer's liability insurance. Again the question arises, should medical transcriptionists have insurance? An employee's best protection against liability is to know the basics of the law and create an accurate medical record. Some hospitals and clinics require the medical transcriptionist to carry a personal liability policy.

Risk Management

Specifically for medical transcriptionists, risk management means looking up all unknown words, documenting when they are unsure of a dictated portion of the chart by writing "Dear Doctor" notes, checking each transcription for spelling and context errors, making corrections in charts in a correct manner, never seeking to change a chart for concealment purposes, keeping all transcription confidential, and continually attending educational sessions to improve knowledge. Medical transcriptionists are producing patient records that will be on display for years to come.

Communications Technologies for Health Professions

by Randy Drake

In today's world of ever-increasing technology, the task of teaching transcription students about the technologies they'll encounter in the workplace may seem overwhelming. The era of creating medical reports on the trusty IBM Selectric typewriter has long vanished, having been replaced by computers, abbreviation expanders, modems, digital dictation/transcription stations, telecommunications, compression and encryption software, facsimile transmissions, networks, mainframe interfaces, and satellite links. Looming close on the horizon are voice recognition and the computer-based patient record, both of which will continue to alter the way transcriptionists work. Just keeping up with the changes in technology can be a full-time job.

Fortunately, the task is not as overwhelming as it appears. Remember that students are in school to learn the basics of the profession, not to become experts in communications technologies. By analogy, students starting a medical transcription course are instructed in the basics of medicine before moving on to more complex dictations, and the more esoteric, cutting-edge procedures are not part of the curriculum at all. So it is with the technologies they learn.

Students without computer experience often endure several weeks of frustration as they struggle to learn computer operations concurrently with learning medical transcription. An underlying tension develops as some students with previous word processing experience outdistance those with no computer experience. A required, prerequisite communications technology (Comm Tech) course can address this problem.

As presented here, a Comm Tech course should precede the medical transcription course. It could be taken concurrently with medical terminology and anatomy and physiology, if they are prerequisites. Comm Tech is not designed to teach typing or keyboarding, a skill that is prerequisite to the course.

Comm Tech works better as a three-hour class once a week than as a one-hour class three times a week. It needs to be held either in a computer lab or with a computer lab available nearby. The typical class period would consist of $1\frac{1}{2}$ hours of lecture, questions, and quiz, a 15-minute break, and 1 to $1\frac{1}{2}$ hours of computer lab work. A computer lab should be available at other times for completion of the assignments, especially in the last four weeks when cassettes are transcribed.

The course outline covers the basic technologies of communications between the doctor and transcriptionist, and creation of a permanent medical record. Doctor-to-transcriptionist communications can be further broken down into dictation technologies and transcription technologies, with the stored sound record being the common link between the two. Today the creation of medical reports is most often accomplished using a word processing program on a computer.

The basics of a Comm Tech course consist of three separate areas of focus: dictation technologies, transcription technologies, and word processing technologies. In each area, the instructor should briefly explore the history of the technology but give the main emphasis to the technologies currently available and skill-building in their use.

Word Processing Technologies

Comm Tech is intended to build knowledge and skill primarily in the area of word processing. This technology is the one with which the transcriptionist will be most intimately involved and is the most complex of the three. The course should cover only the specific needs of working transcriptionists. That is not to say that transcriptionists don't need a broader computer knowledge, only that it may not be practical to teach everything in the context of a medical transcription program already maxed out for time. Remember, the goal is to teach the essentials.

Comm Tech can be taught using a variety of word processing programs as the basis. Word processing theory and operations are similar throughout the genre. The keystrokes necessary to accomplish an operation may vary, but the operation itself is the same in a dozen programs. All word processing programs can underline, for example. It is important that the students understand this concept so they do not feel "lost" when facing a different word processing program on the job.

Communications Technologies for Health Professions

by Brenda J. Hurley, CMT, FAAMT

Course Description

This course is designed to study, synthesize, and apply technologies used in healthcare documentation, as well as to stimulate an awareness of related emerging technologies.

Length of Course

2 college credits, 2 contact hours, 30 clock hours

Measurable Course Objectives

Upon successful completion of this course the student will be able to:

1. Identify technical support services.
2. Define computer terminology as it applies to medical transcription.
3. Summarize the wide variety of dictation and transcription equipment relevant to the industry.
4. Differentiate features among word processing software packages.
5. Describe criteria for selecting appropriate hardware, software, and other technical products.
6. Identify security and confidentiality issues related to technology.
7. Describe the concepts of computer audit trails such as date and time stamps.
8. Send, receive, forward, respond to, and attach documents to e-mail.
9. Research specific healthcare topics on the Internet using search engines.
10. Recognize and evaluate technological standards, advances, and trends in the healthcare industry.
11. Install software programs on a personal computer.
12. Use and evaluate productivity software and keyboard shortcuts such as macros, abbreviation expanders, mouse versus keyboard.
13. Recognize and describe features of alternative keyboards (e.g., ergonomic and stenotype.)
14. Describe available adaptive equipment (e.g., aids for the visually impaired).
15. Identify capabilities and limitations of speech recognition technology and its integration into medical transcription.
16. Use telecommunications software and hardware (e.g., fax and modem).
17. Identify and describe features applicable to medical transcription of ancillary software products (e.g. spreadsheet, desktop publishing, presentation graphics, databases).
18. Find and retrieve patient information from a database.
19. Outline means of obtaining improved transcription accuracy and productivity using technology.
20. Create a plan for continuing education in technology as it relates to medical transcription.
21. Identify and use appropriate print and electronic resources and references.
22. Discuss technological standards for file transmittal set by standards-setting organizations such as ASTM (e.g. .wav files, encryption of data, etc.)

Course Outline

1. Sources for technical support in medical transcription.
2. Computer terminology applicable to medical transcription.
3. Types of dictation and transcription equipment used in the industry.
4. Features that differentiate word processing software packages, including industry-specific packages such as MedWord.
5. Selecting appropriate hardware, software, and other technical products.
6. Security and confidentiality issues related to technology and HIPAA, including file encryption.
7. Computer audit trails such as date and time stamps.
8. Auto-authentication of medical records.
9. Using Internet search engines to research healthcare topics.
10. Evaluating the merit of different Internet information sources.
11. Technological standards, advances, and trends in the healthcare industry.
12. File transmittal standards and organizations such as ASTM (e.g. .wav files, encryption of data, etc.)
13. Installing software programs on a personal computer.
14. Use and evaluation of productivity software and keyboard shortcuts such as macros, abbreviation expanders, mouse versus keyboard.
15. Features of alternative keyboards (e.g. ergonomic and stenotype.)
16. Adaptive equipment for special needs (e.g. aids for the visually impaired).
17. Capabilities and limitations of speech recognition technology and its integration into medical transcription.
18. Telecommunications software and hardware (e.g. fax and modem, PC Anywhere, ProComm, White Knight) and how they differ from Internet service and content providers and e-mail.
19. Features of ancillary software products (e.g. spreadsheet, desktop publishing, presentation graphics, databases) and how they can be used in medical transcription contexts.
20. Finding and retrieving patient information from databases.
21. Improved transcription accuracy and productivity using technology.
22. Planning for continuing education in technology as it relates to medical transcription.
23. Identify and use appropriate print and electronic resources and references.

Student Presentation Topics to be Assigned

1. Evaluate and demonstrate four interactive medical terminology resources on the web. Show how to create links to them and share those links through e-mail.
2. Describe a word processing software package by any vendor other than that demonstrated on campus. Demonstrate how to setup templates for four different document types.
3. Research four standards-related topics and/or organizations with internet sites for the MTs to use (other than those provided in class with handouts).
4. Demonstrate four internet sites for new drugs (other than those provided in class with handouts) with at least two of them allowing for wildcard searches.

5. Describe three security and confidentiality issues and ways to resolve those issues with technology.
6. Demonstrate features of spreadsheet software for generating and processing client billing with examples.
7. Describe alternative keyboards (i.e. ergonomic and stenotype) and adaptive equipment (i.e. aids for visually impaired); explain their features and benefits.
8. Demonstrate desktop publishing for creating your own business brochures with examples.
9. Demonstrate a sales pitch to a prospective client using PowerPoint or Presentations (by Corel).
10. Demonstrate the features of a database software and how it could be used in a medical transcription business.
11. Evaluate the features and benefits of three different macro expander programs (other than SpeedType).
12. Define computer terminology and hardware as it applies to medical transcription (business and practitioner).
13. Describe two ways to backup and retrieve data on your PC. Describe three ways to transfer data from two separate independent PCs.
14. Demonstrate three features of any utility software (Norton, Nuts and Bolts, etc.). Demonstrate two features of systems tools provided with Windows 95 and higher operating systems.
15. Analyze the difference between internal and external firewall solutions (i.e., cost, ease of installing, effectiveness, etc.). Evaluate two different virus protection softwares and explain how updates can be obtained.
16. Do a cost vs. benefit analysis of three different types of internet connection options, and four different internet provider services.

PRACTICUMS: Giving Your Students a Taste of Real Life

by Ellen Drake, CMT

practicum—*a school or college course, especially one in a specialized field of study, that is designed to give students supervised practical application of previously studied theory*

No program, despite the best curriculum, authentic physician dictation, and the most qualified instructor, can give a student the same real-life experience that a practicum or externship in a hospital can give. Indeed, many programs do an excellent job in preparing students for work in hospitals, but most programs cannot provide hands-on experience with digital dictation systems or use computer terminals connected to hospital mainframes to search the master patient index. Commercial dictation tapes cannot provide experience hearing and understanding physician and patient names, dates, and the instructions and banter physicians dictate that should not be transcribed. Practicums, in addition, immerse students in the routine of a medical transcription department, involve them in social and professional interactions with coworkers and supervisors, and do more than just simulate real life. Practicums provide a taste of real life!

Practicums may be variously known as externships, work experience, internships, or clinicals. Practicums provide students with on-the job experience prior to employment and should be an integral part of the medical transcription program. They enhance and complement academic instruction. The experience helps the student learn to make decisions based on the integration of actual experience and classroom learning activities. The externship experience also gives the student an appreciation for the quality of classroom instruction.

Persuading administrators and supervisors of healthcare facilities and physicians to volunteer to take a student for an externship period can be difficult. Scheduling and supervision can be a problem as well. The purpose of this article is to explore the entire scope of practicums, suggest solutions to problems, and offer a variety of approaches to managing practicums.

Design of Practicums

The practicum is the final portion of the medical transcription program. The MCMT outlines an ideal transcription program as one including three semesters of medical transcription (Beginning and Advanced I and II) in a four-semester or two-year program. Other courses include academic study in medical terminology, anatomy, physiology, disease processes, pharmacology, laboratory medicine, English language, word processing, and professionalism.

The MCMT does not give recommendations for the number of hours to be spent in medical transcription practice itself. Experience suggests that no less than 600 to 700 hours of actual transcription practice using authentic physician dictation is required. These are recommended minimums; more hours in transcription practice would obviously produce a better qualified graduate.

The MCMT recommends a length of 240 hours for a transcription practicum, but in practice the length of the practicum depends a great deal on the length of the entire program. A casual survey of program directors revealed that practicums range from 150 to 300 hours, with the majority at or below the MCMT recommendations. The proportion of time in practicums to total program length was consistent at 20% to 25% of the total program. Program directors should give serious thought to revamping programs that provide a practicum of less than 150 hours or no practicum at all.

For some schools, the practicum is the equivalent of a full-time job and takes place in the final semester of the program. For others, the student works in the hospital for 12 to 20 hours a week and attends classes the remainder of the time.

In the practicum, the student should transcribe original medical dictation and all report types. Histories and physicals, operative reports, consultations, and discharge summaries should be emphasized. The on-site supervisor should instruct the student in the other tasks transcriptionists perform with respect to the dictating system (assigning work, searching for reports), patient data searches in the hospital's computers, and the word processing system. The student should be exposed to whatever nontranscription duties the actual transcriptionists perform, but this should be kept to a minimum. The focus of the student's externship should be on transcription.

If only one practicum is provided, it should be in a hospital or a transcription service that has hospital dictation. If two practicums are provided, as is the case in some programs, one might be in a physician's office or family practice clinic. In some programs, students must have an A average before being assigned to a practicum, and only hospital sites are considered; in other schools, students with a B or C average are placed in practicums. A student may be well qualified to work for a physician's office but not for a hospital (due to lack of speed or versatility), and this should be taken into consideration when assigning practicums. In community colleges and especially vocational programs, the goal is employment. Students who can be successfully employed and do a good job in a physician's office should not be considered failures because they could not do hospital transcription.

The facility providing the practicum must be willing to assign the supervisor or a willing transcriptionist to monitor the student and evaluate the student's work. The school program director should visit the practicum site regularly to be sure that the student is receiving the kinds of experience the facility should be providing and to make sure that the student is not being used merely to run errands or serve as extra clerical staff.

Garnering Community Support

An active and dedicated advisory committee that works with you and promotes your program to other healthcare facilities in the community is the most effective means of garnering local support. One program director reports that most of her leads come from former students and her activities in the local AAMT chapter. In addition, the program director should seek out opportunities to talk to physicians (perhaps through hospital staff meetings or county medical society meetings). Often physicians are not even aware that medical transcription training exists. Frustrated with the difficulty of finding knowledgeable and skilled transcriptionists, they are delighted to find quality graduates from a good program.

Call and/or visit transcription supervisors in healthcare facilities and transcription companies. You may even want to make appointments to talk to health information managers and hospital administrators. Facilities that may not be willing to provide practicums may contribute to an equipment fund or provide a scholarship to a needy student. Do not go over the head of an uncooperative or unsupportive transcription supervisor. Just bide your time and keep working tactfully and patiently on the supervisor.

A superior transcription training program producing highly skilled and knowledgeable graduates also engenders the support of the medical community and actually elicits volunteers for practicums. Physicians and supervisors will begin calling to see if you have any graduates they can hire.

Sometimes they may try to hire your students before they finish the program. Try to prevent this by talking to the potential employer. Explain that support is a two way street, and if they want to continue receiving referrals from you, they must let the students finish their program. That certificate of completion or degree will be important to the student when the need arises to look for a different job.

Plan for publicity. Each semester, plan some event or think of some newsworthy reason to send out press releases to radio stations and newspapers. A National Medical Transcriptionist Week open house or tea in May and at graduation are certainly two good excuses for publicity. Information seminars for prospective students and orientation for new students are others. Ask the media to announce new courses added to the program or external studies and continuing education courses. As the nonmedical community becomes more educated about your program through the news media, so too will the medical community.

Soliciting Practicum Sites and Setting Up Schedules

The ease or difficulty of finding practicum sites depends a lot on the number of students needing practicums, and whether your school is in a major metropolitan area or a small community with only one hospital. You may want to prepare a brochure describing your curriculum, explain that students are trained on authentic physician dictation, provide statistics on numbers of students, graduates, and successful placement, and list the advantages of practicums to the healthcare facility.

Practicums provide the healthcare facility with a source of trained transcriptionists, an opportunity to influence students' perceptions of the profession, and the satisfaction of contributing to the future of the medical transcription profession. Participation in practicums also:

- Increases public awareness of the healthcare facility's desire to benefit and serve the community.
- Allows staff to benefit from students' enthusiasm and knowledge.
- Allows employers to be involved in and influence the education of students.
- Promotes the healthcare facility as an enjoyable place to work.
- Strengthens the relationship with the school, which can be a source of future employees in other disciplines.

If you have worked hard to develop your advisory committee and community support, you should be able to find the necessary sites. Unless they have no available desk and equipment for the student to use, all advisory committee members who represent healthcare facilities should accept at least one student for a practicum placement. Certainly the task is simpler for self-paced programs where students are completing their academic work at staggered times or programs with few graduates.

Programs with 15 to 20 students completing the program at the same time will no doubt have more difficulty placing students in practicums no matter how many hospitals are available.

It will also be difficult to place evening students who may be reluctant to give up a day job to work for free for four, eight, or up to 16 weeks. In the latter case, students should be warned when they start the program that evening practicums are rare and that they should start planning at the beginning of the program for the adjustments they will need to make during their practicums. This might be a good time to consider seeking practicum providers who will pay the student and/or promise to consider hiring the student after graduation.

In some programs, students arrange for their own practicums. The instructor may provide a list of sites willing to take a student and/or refer students to specific sites. In essence, however, the students contact the hospitals and market themselves to the supervisors, much as they would when looking for employment. A student unsuccessful in finding a practicum must register for the next semester and try again and may elect to take additional courses that semester or sit it out.

One school makes the process a little easier for the student. All the students prepare a resumé and a portfolio, which contains samples of their work, an academic transcript or listing of the courses they've taken, documentation of typing speed, letters of recommendation from the instructor and one other person, and copies of any awards or honors they have received.

All of the supervisors willing to take students for practicums are contacted and schedules set up for them to visit the school. Two or three students sign up to be interviewed by each supervisor, and the supervisor then chooses one of the students for the practicum. In either case, it is the responsibility of the student to work with the supervisor at the site and set up a schedule agreeable to both of them. Guidelines for the site and the student are provided by the instructor. (Suggested guidelines appear below.)

In some schools, placement coordinators or cooperative education (work experience) directors handle the placement of students in practicum positions and assist in job placement. If you have never sought the services of these departments, this is an avenue you may want to investigate. They help the students prepare resumés and write cover letters. Those departments also work with students on appearance, job hunting techniques, and interviewing skills.

In other programs, the instructor solicits practicum sites, makes all arrangements, and works with the site supervisor to set up a schedule. This can mean as many as four completed phone calls (and as many unsuccessful attempts) between the school and facility and three to four hours to set up each practicum. If the school provides for two practicum periods, as some do, this can consume enormous amounts of time for the program director.

Guidelines for Practicum On-site Supervisors

1. Begin the student trainee on easy dictation first, gradually advancing to more difficult dictation; start with American and advance to foreign doctors.
2. Start with discharge summaries, then H&Ps and consults, then operative reports. Discharge summaries do not have the turnaround pressures of other work and allow the students to learn to use new equipment and get used to their surroundings without being pressed to complete a high priority or stat report.
3. Give the student several reports by the same dictator if possible so that the student can get used to the terminology and style of the dictator.
4. Some hospitals put students on "dead" work—work that has already been transcribed. On some digital systems, depending on whether the report has just been completed, stored, or archived (or if the work has been "bled off" [re-recorded]), a high-pitched whine may be superimposed over the report. Students should not be given dictation that has these extraneous sounds. Real life is hard enough. Don't be surprised if the students find errors in the original document if they are given a copy to compare to their own.
5. Often there may be variations in acceptable punctuation and style (especially in use of commas,

numbers, and abbreviations). If the student uses an acceptable variation that is different from the way you would do it, it is okay to say, "In our department, we would do it this way," but do not count the student's way as an error.

6. Give the student sample reports, both for illustration of formats and as samples of difficult dictation, foreign doctors, or surgery.
7. Don't expect a lot the first few days, either in production or quality. Many students will be nervous, which will cause them to be slow and make mistakes. They will also be adjusting to new dictating and word processing equipment.
8. Encourage and praise liberally; criticize fairly.
9. Keep in mind the person is still a student and is there to learn.
10. In the beginning, check the student's work after every report or every few reports to avoid repetition of formatting and other errors.
11. If transcriptionists, especially those on incentive pay, are expected to help the student, adjustments in pay or some other rewards should be offered to compensate the transcriptionists for lost time and frustration. Whoever supervises the student should have patience and a genuine interest in the student's success.

Students may resist finding and setting up their own practicums, but having the instructor set up the practicums presents many more problems. After all the instructor's time and effort has been expended, the student may not like the assignment or the supervisor, or may think it's too far to drive. Have the students complete a form in advance specifying their preferences with respect to part of town, future plans, type of facility, and hours available. Then when some of their wishes are met, they feel as if they selected the site. Otherwise, some students feel that others have been given the better hospital site and that the program director is showing favoritism. This is compounded even more if one student ends up being hired by the practicum site and another is not. Having the student read and sign a disclosure statement at the beginning of the program about how practicums are set up and assigned also helps avoid misunderstandings.

Some schools may use a combination of the above methods. Sometimes, students come into the program having the support of someone in the medical community and want to have their practicum with that person. Some go-getters get very involved in the local professional association and make good contacts who actually request the student be sent to them.

Regardless of the system used, there will be problems if clear guidelines are not outlined and followed. The instructor will need to mediate problem situations between students and facility supervisors.

Should the student get paid for the practicum? That again depends on the size and sophistication of your medical community and oftentimes on what has been done before. Most students do not get paid. When considering the amount of time the facility supervisors must invest in a student and the consequent loss of production, asking them to pay the student may be asking too much. Schools that require two practicums may require that one be unpaid, but the second practicum may be with pay. Often the second practicum leads to a job. Some flexibility should be allowed here. If a facility wants to pay the student and eventually hire her or him (the school's purpose is to put the student to work), it would not seem wise to refuse to allow such an arrangement.

Another factor in setting up practicums is whether the student should work full-time or part-time. Most programs favor a part-time practicum in which the student may work up to 20 hours a week and continue with academic studies another 15 to 20 hours a week. There are many advantages to this. The demand on the practicum supervisor's time is less, and thus more supervisors may volunteer for practicums. The program instructor sees the student daily and can work on any particular problems the student may be having on the job. Students can share their successes and problems with each other.

Full-time practicums, while placing a greater demand on the facility supervisor, may allow the students to finish the course sooner and get a job—something they are anxious to do. Working eight hours a day, five days a week, in a hospital gives the student the experience of a real job, something not provided in most transcription programs. Typing long hours every day helps the student improve speed and productivity as well. Scheduling a single course for one evening a week can provide the same advantages as having the students spend half their day in class. If the students complete their practicums in four to eight weeks, the program director can work on public relations and program planning rather than supervising and organizing extended practicums.

There is no doubt that volunteers to provide full-time practicums are difficult to find. You may want to experiment with part-time practicums one year, full-time the next, or a combination of the two to see which works best for your school.

Practicum Evaluation

Students should be evaluated by both the practicum supervisor and the transcription instructor or program director. The instructor or program director should visit the practicum site and observe the student, ideally weekly but at least twice during the practicum period. The practicum supervisor should be given guidelines for evaluation and an evaluation form. In general, students should be evaluated on the same skills and qualities used in transcription practice: productivity, quality, appearance, attendance, promptness, and interpersonal skills. Students should keep their own attendance records which should be signed or initialed by the practicum supervisor. The simpler the evaluation form the better. The form should not require too much writing, reading, or computation or it may not be properly completed by the supervisor.

Guidance for Practicum On-site Supervisors

It is a good idea to give practicum supervisors guidelines for putting the students to work and evaluating their work. Most supervisors have never worked with students and many have never worked with trainees. What seems logical to a teacher may never occur to a hospital supervisor who is used to expecting newly hired employees to jump right in and transcribe whatever comes their way. You do not want that much reality for your students. The experience can be extremely discouraging and disillusioning.

Contracts and Agreements

Contracts and agreements should specify the individual responsibilities of the practicum site facility, the school/program representative, and the student. The actual contract would be developed or approved by the legal department of the school. The school may already have contracts with healthcare facilities in your area for nursing and other allied health programs. Often, the transcription contract, because it does not involve hands-on patient care, can be added as an addendum or appendix.

A typical practicum agreement would specify the name of the student, the names of the practicum facility and the college, give the dates of the practicum period, and list the responsibilities of each party. It would also include reasons for the termination of the contract. The agreement might also state that entering into such an agreement does not obligate any party to any future commitments and specify whether the student is to be paid.

All parties agree that the contract may be terminated for any conduct of the student which would result in dismissal of an employee, for any illness or event that would necessitate the student's extended absence detrimental to the practicum experience, for any action by the practicum facility detrimental to the student or college, or for any action by the college detrimental to the practicum facility.

With nurses and other allied health technology students who have hands-on patient care, insurance and liabilities are an important part of contracts. That should not be the case with transcription students who do not provide actual patient care. The primary insurance or liability issue for medical transcription students usually concerns a student injured at the practicum site or a student violating the confidentiality of a patient or the facility. Most schools require that students registered for classes purchase insurance which covers accidents on campus or off. You may want to check with your administration if you are uncertain of your school's policies concerning student injuries while engaged in school activities.

A Few Final Words

Students need to be prepared psychologically and emotionally for the practicum experience. Some breeze through it. For some students, even older adults, it may be the first job they've ever had. Others struggle because they did not realize there was still so much they did not know, that they would need to adjust to new accents and dictation styles, that adding names and dates to a report could be so confusing, and that learning new equipment could be such a distraction. On-site supervisors may also fail to take the same factors into consideration in their expectations of the student.

Be prepared to be disappointed in sites, supervisors, and students. You may spend a lot of time locating outstanding practicum sites, wooing the supervisor, and setting up the hours with a student only to have the student drop out. Supervisors may decide that correcting the student's work is too time-consuming and withdraw their offer or be over-ruled by a superior. To help overcome this, consider scheduling a two- to three-week "think-about-it" period for student and supervisor. Setting up practicums will no doubt take more management and organizational time than any other part of your program, but the benefit to the student is immeasurable.

There will be times when you find that a practicum supervisor is not providing the experience in transcribing the "basic four" (H&Ps, consults, operative reports, and discharge summaries) that the student should be getting. If a student is being used for clerical duties, to fill in for someone ill or on vacation, or even ignored and allowed to sit for long periods of time with nothing to do, don't hesitate to intervene. If the practicum supervisor cannot be persuaded to provide the student with appropriate training, remove the student from the facility and remove the facility from your list of approved sites.

By now you're probably thinking, "If I do all this stuff for practicums, I won't have time to teach or manage the rest of the program." But you don't have to do everything personally. Learn to delegate. Ask advanced students to type up pre-practicum guidance forms, practicum agreements, and confidentiality forms. Students can make contacts with the medical community as well as you can. Many probably know some doctors and transcription supervisors personally. An exceptionally organized senior student in one program even contacted potential practicum sites and scheduled all

the practicums for everyone in her class! She made valuable contacts and impressed supervisors all over three counties. She had no trouble getting a job when she finished school!

Most important, accept the fact that your program will not be transformed overnight. Expect these changes to take time. Prioritize the things that you feel are most important to your program and do those first. Next year you may find time to add one or two more tasks, and the next year a few more.

A variety of approaches to setting up practicums has been provided in this article. It would not be reasonable or feasible to suggest that one type of practicum is better than another for a particular program. You must evaluate your program and determine what works best for you, the school, and most important, the students. Share this article with your administrator and your advisory committee and ask for their help in establishing or improving practicum administration in your program. As important as a practicum is to the student's education as a medical transcriptionist, it cannot be neglected.

The student agrees to:

- Complete all pre-practicum requirements.
- Maintain satisfactory academic standing.
- Complete and turn in to the program director the Practicum Admission Check-off Form.
- Complete and sign the Pre-practicum Guidance Information form, Confidentiality Agreement, and Application for Practicum.
- Commit to specified minimum number of hours per week and sign Commitment Agreement.
- Register for Medical Transcription Practicum. The student must be registered to receive a grade, be covered by the school's liability insurance, etc.
- Maintain near-perfect attendance/punctuality and keep a record of attendance.
- Keep daily production record.
- Display willingness to learn.
- Prepare thoroughly for and conscientiously conduct each task assigned.
- Maintain high level of confidentiality.
- Call the practicum supervisor prior to absence or tardy arrival of more than 20 minutes.
- Display team spirit and establish positive interpersonal relationships.
- Be committed to improving skills.
- Advise school representative of any changes in the practicum supervisor or schedule.
- Dress professionally as representatives of both the school and the practicum facility.
- Exhibit professional behavior at all times.
- Abide by the policies and procedures of the practicum facility.
- Report any problems/conflicts with the practicum immediately to the program representative.
- Forward all time sheets and production records to the program director by the deadline.

The school/program representative agrees to:

- Select and screen students for the practicum and make recommendations to the practicum supervisor.
- Provide related classroom instruction.
- Counsel the student.
- Identify training objectives.

- Provide the practicum supervisor with a confidentiality statement signed by the student.
- Communicate frequently with the student and the practicum supervisor.
- Visit the practicum site regularly to observe and evaluate the student's performance.
- Review the student's performance with the student and the supervisor.
- Use the practicum supervisor's evaluation as partial determination of the student's final grade.
- Arbitrate problems and differences between student and the practicum supervisor.

The practicum supervisor agrees to:

- Provide department orientation for the student and outline expectations and responsibilities.
- Provide actual on-the-job experiences and opportunities for the student to complete training objectives.
- Provide daily instruction, responsible supervision, and evaluation of the student.
- Correct student transcripts, discuss errors, and advise the student on how to improve quality and production.
- Avoid leaving students alone or unsupervised. They may not be able to answer questions or fulfill the requests of physicians or other staff members who call.
- Make the student feel part of the team.
- Encourage the student.
- Give the student fair and constructive criticism.
- Report regularly to the program representative on the student's progress, including performance level, limitations, and potential.
- Notify the program representative immediately of any conflicts or problems relating to the student.
- Complete a written evaluation of the student at the completion of the practicum period.
- Make suggestions to the program representative regarding potential weaknesses in the curriculum based on the student's performance.
- Support the transcription program's goals and objectives.

*Camera-ready forms for use in the administration of practicums are available from HPI. The forms include a **Practicum Agreement**, a sample contract which specifies the terms outlined in the first three paragraphs of Contracts and Agreements, and lists the duties of the student, the school representative, and the practicum site supervisor; **Guidelines for Practicum Site Supervisors**; **Confidentiality Statement** for the student to sign; and a comprehensive yet simple Student Evaluation form. As a bonus, a **Student Information Sheet** is included for recruiting students or for using in new student orientation. Contact HPI, P. O. Box 801, Modesto, CA 95353.*

Free Advice Is Priceless: Working with MT Program Advisory Committees

by Ellen Drake, CMT

Trying to administer a medical transcription program without an advisory committee is like trying to walk in weightless space. You have nothing solid to stand on. A good advisory committee helps give a medical transcription training program direction and purpose.

Putting the student to work is the goal of all programs. How can students find work if potential employers are not consulted about their staffing needs and skill requirements for employment? How can a program manager or instructor be sure graduates will satisfy those employment requirements? What will open the door of employment to the inexperienced graduate if not the respect the community has for the training program? How will that respect be engendered if not by the program manager and instructors working closely with supervisors and employers of medical transcriptionists? How better to work together than through an advisory committee?

Setting Up an Advisory Committee

An advisory committee is as important a part of any medical transcription training program as the curriculum. The committee functions as a liaison between the medical transcription program and the medical community. Its members advise the school administration and program director on the knowledge and skills (competencies) they expect of entry-level employees. They make suggestions for improvements in individual courses and the program as a whole. They help the program manager justify needed equipment, materials, and curriculum changes. Recommended changes will have stronger impact on the administration when coming from community professionals. In addition, they may help to raise funds for equipment and materials, provide sites for practicums, and serve as guest lecturers and mentors. Finally, some of them will hire your graduates.

Organization of the Committee

The committee should consist of 8 to 12 members. Only about half of the members can be expected to attend evening meetings. The instructors, program director, and department head are not included in that number. A balanced advisory committee should represent hospital supervisors, medical transcription service managers, and physician office managers. In addition, the committee should probably have as members at least one physician, one freelance transcriptionist or independent contractor, one hospital personnel director, and one recent graduate of the program.

Although some schools limit membership terms to one to three years, there is no reason that members should not be able to serve indefinitely as long as they are willing and active. If one-year terms are used, members may be asked to serve two or more consecutive terms. If two- to three-year terms are used, membership should be staggered so that there will always be experienced members on the committee. The committee should elect a new chair from the experienced members each year.

Schedule meetings for the entire year; one meeting each semester or quarter would be ideal. One meeting a year may be all that's practical, however. Be certain advisory committee members are given a copy of the schedule. A good way to do this is to prepare a yearly calendar and include significant

class events, field trips, and dates for guest speakers. Keep communication lines open between the school and the committee members. Always send all members copies of meeting minutes, invitations to special events, and program reports on numbers and status of students.

Recruiting Members

Be prepared! Like the Boy Scouts and the Marines, you must be prepared before setting out to recruit members for your advisory committee. Prepare a packet of information describing your program. Include a brief summary of your background and qualifications for teaching medical transcription, a course description and outline, and information about the school. Be sure to specify that you are using authentic physician dictation with only the confidential information deleted from the tapes. Enclose a sample transcript and itemize the specialties studied. You may even want to include a partial or complete listing of the reports transcribed by type, diagnosis, and specialty.

If your program has existed for a while, your information packet might include numbers of students, graduates, and placement statistics. Provide an information packet even for prospective members very familiar with your program. They can use the information when promoting your program to others.

If you are active in a local chapter of AAMT (American Association for Medical Transcription), solicit volunteers from your chapter contacts (including physician speakers). Call the transcription supervisor or health information manager and supervisors of pathology and radiology of all local hospitals. Contact large clinics and local physicians' offices. The more active and visible you have been professionally, the easier it will be to find volunteers for your advisory committee.

In recruiting members, don't be shy, but do be practical. Recognize chains of command and observe appropriate protocols. For example, don't call a physician's office and ask to speak with the physician directly the first time. Ask for the office manager or medical transcriptionist. Explain in a few words that you would like to talk with the doctor about your medical transcription program and ask if you can set up an appointment. You probably do not want to tell the office manager that you would like the physician to be on a committee. The manager is paid to keep the doctor from people like you! Do explain that you feel the transcription program benefits all the doctors in the community and you are anxious to get the word out to as many physicians as possible.

If supervisors or physicians decline and you know them well, you may want to ask if there is any other way they could support your program. They may be willing to visit your class, promote your program to their peers, provide a practicum site, consider hiring a graduate, contribute to your equipment fund, sponsor a needy student financially, or contribute to the scholarship fund for your program.

Seek advisory committee members who will be active and supportive of you and your program. If you do not know a prospective member well, try to find out if the person is a team player and has followed through on commitments in the past. Invite prospective committee members to your classroom to see your equipment, references, supplies, and dictation materials. Introduce them to your department head or administrator. Make certain that all prospective members are thoroughly familiar with your program, supportive of it, and understand the time that will be involved before issuing an invitation for them to join your board.

Issue the invitation in person to become a member of the advisory committee and follow up with a letter outlining the details of membership. Upon acceptance, write another letter thanking them for

accepting your invitation. Tell them how long (give dates) their membership term will run. Include those responsibilities that you expect of each advisory committee member. You should have already discussed these duties before they accepted the invitation to join. Enclose a schedule of upcoming meetings and events they are expected to attend, and the names of other advisory committee members. Acknowledge their responsibilities and commitment and again thank them for their willingness to invest their time and knowledge to insure the success of your program.

Ask each member for a photograph or take a Polaroid picture for display in the classroom. Students will learn to recognize the names and faces of the advisory committee members before they come to the classroom to speak, attend meetings, or conduct interviews. Give extra information packets and a supply of business cards to committee members for promotional purposes.

Orientation of Members

At the first meeting of each school year, have the transcription students prepare a reception and invite the advisory committee members. Help the students prepare a short program to orient committee members to the transcription program. Cover all aspects of the program, emphasizing the practicums, how important they are to the success and employability of the students, and how they are structured. Play some of the dictation tapes. Have textbooks and reference books displayed. Introduce all the students and advisory committee members to each other.

After the reception and program, the advisory committee should move to a conference room while the students clean up. There the program director can review the schedule and program goals for the year, give enrollment statistics and note placement of recent graduates, relate successes, and inform the committee members of any material needs the program may have that cannot be provided by the school. The program director should invite the committee members to offer suggestions and recommendations for improvement at any time.

A written agenda should be provided for every meeting and sent with a list of all the committee members to each member prior to the meeting. Meetings should be kept short and the agenda followed. Typical items for an agenda include schedules for the remainder of the year, enrollment, equipment, special events, curriculum review and/or changes, need for practicum sites, and placement of graduates.

Always provide beverages, and if the meeting is immediately after work hours for most members or near a meal time, you may want to provide snacks.

Responsibilities of Members

The list of things you could ask of advisory committee members is endless. Use discretion so that they do not feel overworked, taken advantage of, or unappreciated. Consider the list of recommendations presented on the previous page. Choose those that seem appropriate to you and add your own.

Any one member will not do each and every item listed, of course. Some members will be more inclined to provide personal interactions or possess excellent oral communications skills; others will shine by providing materials, evaluating the program, and writing recommendations and evaluations. If, however, a member is not active and does not fulfill any responsibilities, do not hesitate to remove that person (who will probably be relieved) in a diplomatic manner.

Finally, remember that you are asking a lot of your advisory committee members. Be sure to thank them each year for their work and support. At the end of the year, an appreciation tea or reception, again arranged by your students, would be appropriate.

Give them a small gift or plaque of appreciation. Let them know how much you and the students value their input and support. Students who have received help or advice or served their practicum with an advisory committee member should write individual thank-you notes as well. Remember to invite your committee members to graduation exercises.

Establishing and working with an advisory committee will take time and involve extra work, but your efforts will be rewarded by increased support and recognition from the medical community, more practicum sites, and easier job placement of graduates.

Advisory Committee: Responsibilities of Members

At appropriate times and at their convenience, advisory committee members may be expected to:

- Make themselves available in an informal way to answer students' questions, give advice, and share insights on the medical transcription profession.
- Be available by phone or in person by appointment to advise and offer their expertise to the program director and instructors.
- Invite the transcription classes to tour their facilities.
- Donate used equipment, supplies, and reference books when theirs are updated.
- Provide supplemental training tapes on assurance that confidential material will be removed by the instructor.
- Publicize the program and refer prospective students.
- Review curriculum, course outline, syllabi, texts, and supplies on a yearly basis, and recommend changes in writing. (One supervisor offered her site for a practicum after seeing a course syllabus, even though the program had been well explained to her before.)
- Serve as guest lecturers for transcription classes. (The class should write a thank-you note to those who do this.)
- Offer their facilities for practicum sites. (If contracts are required between the school and the facility, provide each committee member with a contract to be signed and returned at the first meeting.)
- Review student resumes, provide feedback, participate in mock interviews, and complete written evaluations of students.
- Recommend and encourage supervisors and administrators of other facilities to volunteer for practicum sites.
- Serve as mentors and solicit other transcriptionists to serve as mentors for students.
- Seek scholarships and financial aid for students from their facilities as well as others.
- Agree to consider graduates for entry-level job openings.

Thanks to Norma Williams, Susan Dooley, Marcy Diehl, Janet Stiles, Tina Barton, Annie Webber, and the many other medical transcription instructors who contributed material for this article.

The Virtual Classroom: MT Education on the Internet

by Georgia Green, CMT

Learning Without Labels

When you walk into a traditional classroom, what you notice is what you see with your eyes—not eagerness to learn and potential for success, but labels associated with how people look. Are those young faces serious about studying? Will mature-looking students resist change? Are the well-dressed people smarter and likely to do better? Is the one who fails to make eye contact a daydreamer? Traditional classroom teachers are challenged to look beyond physical appearance and reject labels. But even the students themselves apply labels to each other that can hinder their learning experience.

Walk into a virtual classroom, or rather, "log in," and the impossibility of applying labels is clear. Internet students cannot be identified by race, socioeconomic status, or physical challenge. Even gender is obscured, as students are free to choose their own nickname, or identifier. Needless barriers to learning are removed, and students communicate freely. Shy students blossom. And no one has a bad hair day.

A virtual classroom uses the Internet to bring participants together from anywhere in the world. Chat room software provides the tools to translate traditional classroom learning experiences to the virtual environment. Distance learning programs profit from classroom teaching techniques, and campus-based programs can extend their reach through on-line activities. The virtual classroom is also an ideal forum for on-the-job training, providing real-time mentoring for home-based MTs.

Teaching in a Virtual Classroom

A chat room is much like a traditional classroom, with the teacher serving as on-line moderator for the group. A list of participants is displayed on one side of the screen, and students and teacher communicate by typing messages in the main window. The dialog is recorded much like a movie script and can be saved and printed, so there is no need to take notes during class. (See illlustration on next page.)

Establishing classroom etiquette, or "netiquette," is important to keep order in the session. For example, students should type a question mark and wait to be called upon when they want to ask a question or make a comment. Students can speak privately to each other, or to the instructor, without these messages appearing in the main classroom window. This fosters communication between class members and aids in bringing out reluctant students. A private message to the teacher followed by a reassuring, "That's a great response; let's post it to the main window so everyone can see," bolsters confidence.

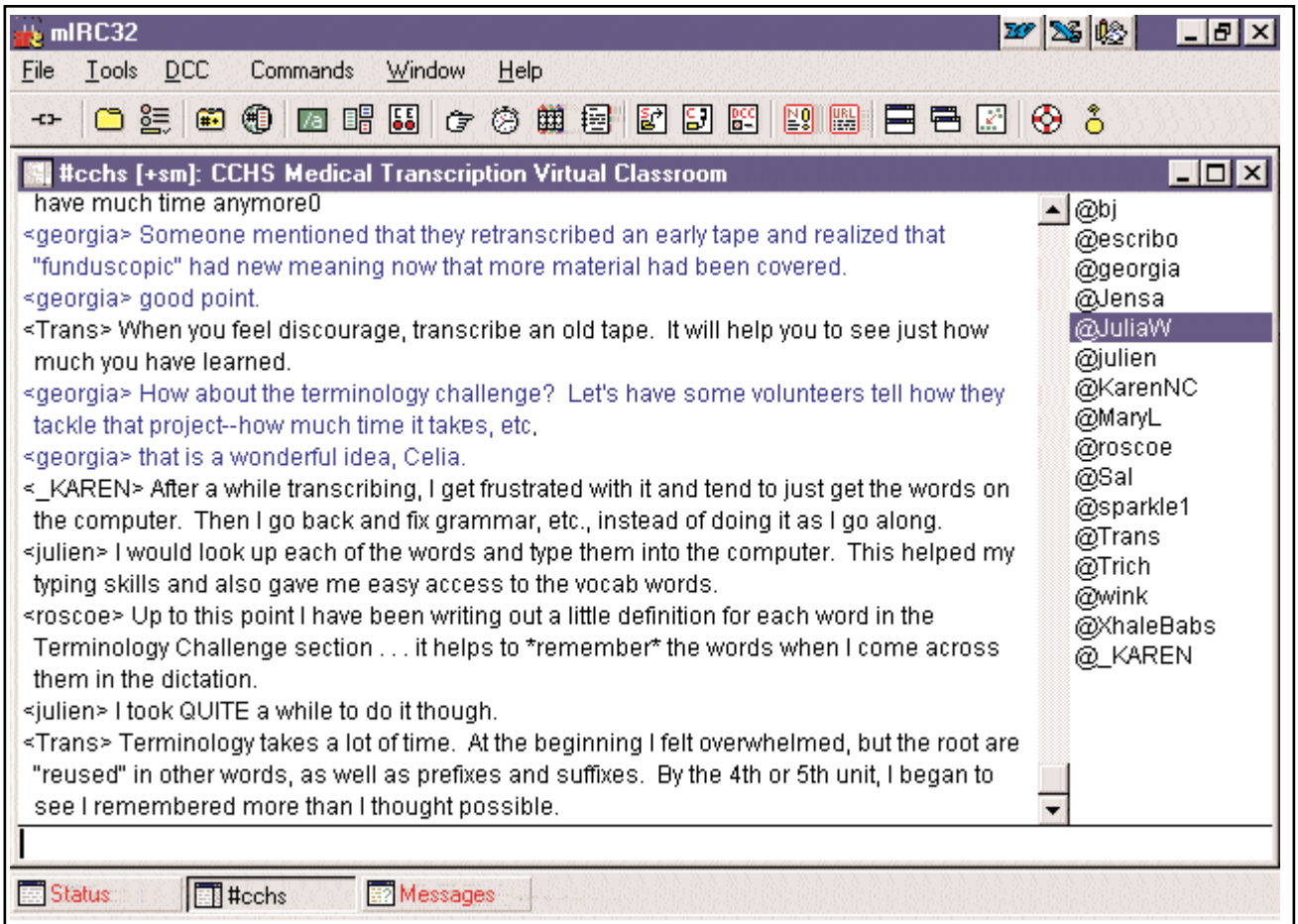
Traditional classroom teaching methods move easily into the virtual environment:

• **Lecture**: The instructor can lecture ad lib or cut and paste prepared text to save time and keystrokes.

• **Q&A**: A moderated question-and-answer period can be led by the teacher or delegated to a student.

• **Whiteboard discussions**: A whiteboard can be viewed by all students to post discussion material or jot down key points while discussion takes place in the regular chat room.

• **Quizzes**: Questions can be posed individually to each student, written in the main window, or posted on the whiteboard. Students can respond privately to the instructor. Scorekeeping is easy as all dialog is logged.



The participants appear on the right. Note that some use real names and others use pseudonyms called "nicks." The discussion looks much like a movie script. Students can scroll back and re-read passages so they won't miss anything or review if they have not understood a concept.

• **Small-group work**: Splitting the class into groups and assigning each group to its own chat room allows students to work more closely. A leader should be assigned in each group to keep students on task. The instructor can monitor all rooms simultaneously without the risk of missing key teaching opportunities. Logs of these sessions allow the whole class to benefit from the work of each group.

• **Guest lecturers**: Perhaps one of the best features of an on-line classroom is the opportunity for students to meet industry experts who can log on remotely without the need for travel.

• **Distributing handouts**: Students can receive files electronically and view them during the session.

• **Field trips**: The class can take a virtual field trip to Web sites, each class member viewing the same site simultaneously while discussing what they find. This can be a visit to a library archive, medical science site, or other MT resource. A field trip can also be made to another live chat room, allowing students to interact with a group of experienced MTs.

• **Listening to dictation**: Sound bites called "wave files" (*.wav) are transferred easily in this medium, enabling a teacher to play a passage of dictation to the group.

Choosing Chat Room Software

Chat room software can take many forms. On-line services, like America Online, maintain private networks and use special software for access. However, these chat rooms are available only to their subscribers. Internet conferencing software is another option. Microsoft's NetMeeting is a free download and is a component of Internet Explorer 4.0. It includes Internet phone software, basic videoconferencing, and application sharing. Netscape Conference is a component of Netscape Communicator featuring Internet phone, text chats, whiteboard, and file sharing.

Subscription Web-based chats are also available. HotOffice maintains a virtual office for your company and provides other Internet services such as e-mail and file storage, in addition to hosting on-line meetings. Subscription services typically start at about $20 a month, and this is in addition to the user's own ISP fees. Web-page-based chats allow access to anyone with a Web browser, but response time is generally too slow for the classroom.

The Internet Relay Chat network, or IRC, is a free chat network available through almost all Internet services providers, including AOL. It hosts hundreds of networks worldwide, and each network can contain thousands of chat rooms. It is also possible to establish a completely private IRC site through inexpensive IRC-server software so that participants log on directly to the moderator's site, providing complete security.

To utilize the IRC, special chatting software is required. Most programs are available as shareware, which can be downloaded for free and registered later for a very small fee. PIRCH, Virtual IRC, and mIRC are chatting programs available at shareware sites like http:\\www.shareware.com or http:\\www.zdnet.com. The homepage of mIRC, which provides some of the best teaching tools, is at http:\\www. mirc. co.uk and includes instructions including a special "downloading for dummies" section. Some ISPs, like NetCom, provide proprietary chatting software that can access all IRC networks. Mac users can access the IRC by downloading IRCLE from these same sites.

Virtual Classroom Do's and Don'ts

• Do choose a convenient meeting time and server network and publicize it well in advance of your first meeting.

• Don't forget to allow several practice sessions to master the nuances of the software. It is not difficult, even for the most computer-phobic student, so long as he/she already has Internet access for e-mail and Web browsing.

• Do visit a successful virtual classroom to try it out and get ideas.

• Don't forget to make a lesson plan. Let students know in advance what materials they need to have on hand, e.g., textbooks, etc., so that no time is wasted in the classroom.

• Do establish a "netiquette" protocol to keep organized.

• Do allow time before and after class for students to chat informally, just like they would in traditional classroom. A call to order at the start of class lets everyone know it is time to begin.

• Do appoint your best computer-literate student as a teaching assistant (TA). The TA can work with others via private messaging to resolve technical issues. A class secretary can volunteer to send out e-mail messages or coordinate communication between students outside of class.

• Don't forget to log each session and make logs available for distribution to students who could not attend. A subscription service for class logs is made available to California College for Health Sciences (CCHS) students so that everyone has the opportunity to benefit from information provided in class.

• Do offer typing services to non-MT guest lecturers who may feel intimidated at the keyboard.

• Don't forget to keep topics appropriate to the makeup of the group—general enough to include new students but interesting enough for the more advanced.

Using the Virtual Classroom for On-the-Job Training

New MTs benefit greatly when working in a transcription office, where an experienced ear is just a few feet away. Less experienced home-based MTs suffer the dual dilemma of not having help available at the moment it is needed and missing out on the learning experiences provided by frequent 1:1 mentoring.

Set up a virtual classroom with one or more designated mentors logged on during preset hours. Invite home-based MTs to remain logged on during their workday. IRC software can run behind the word processing program or be positioned for simultaneous viewing. Sound effects can be utilized to summon the attention of a mentor. Referencing questions can be answered on the spot. Selected transcribed passages can be pasted to the chat room window for discussion. If "a listen" is required, the MT can quickly record and send a "wave" file, allowing the mentor to hear it simultaneously. Other MTs participating in the session can also be called upon to give input, grabbing and listening to the dictation as well. Simultaneous listening is often the best way to teach auditory skills.

A Virtual Invitation

A virtual classroom can expand your traditional learning program and support your independent-study students. It can also be the basis for building a competent and loyal staff through on-line mentoring. It is inexpensive and easy to set up and maintain. The next time you are on-line, visit a virtual classroom and see what it has to offer your educational or on-the-job training program.

Going the Distance: Teaching Transcription in Cyberspace

by Georgia Green, CMT

Distance education has come a long way since correspondence courses were first hawked on matchbook covers and late night television. Prestigious universities and colleges offer distance education courses to working professionals in their own communities and across the nation. In most cases there are no required on-campus visits, and students complete all course requirements from home. Distance education courses can take the form of traditional correspondence programs, television courses, two-way videoconferencing, or instruction provided via a multitude of Internet applications.

Incorporating distance education into a medical transcription training program increases the pool of potential students by extending geographical boundaries and decreases technology costs by transferring to the student the burden of supplying work space and computer equipment. In addition, medical transcription training is uniquely suited for delivery in a distance learning environment because it can emulate the workplace of the telecommuting medical transcriptionist. A medical transcription student who trains at home is more likely to make a smooth transition to working at home. During home-based training, students have the opportunity to overcome the barriers that plague office-bound MTs transitioning to home-based transcription, including establishing a suitable work space, obtaining and learning to maintain equipment, developing good work habits outside of a traditional office, and learning to juggle the responsibilities of a home office, e.g., time management, maintaining concentration, minimizing interruptions, and understanding the need for child care arrangements.

About Distance Education

According to the 1998 Amendment to the Higher Education Act, distance education is defined as a process characterized by the separation, in time or place, between instructor and student. Such a term may include courses offered principally through the use of (1) television, audio, or computer transmission, such as open broadcast, closed circuit, cable, microwave, or satellite transmission; (2) audio or computer conferencing; (3) videocassettes or discs; or (4) correspondence.

Of 5010 postsecondary institutions surveyed by the National Center for Education Statistics (NCES), 1680, or 34%, reported offering distance education courses in the past year, enrolling over 1.6 million students and offering 54,470 different courses. According to the NCES, most distance education courses use at least two, three, or more technologies for course delivery—the Internet as the principal technology, and audio/video/print as secondary technologies. In addition to combining delivery technologies, schools offering distance education courses typically combine traditional and distance education models such that a course may be offered as regular classroom instruction, classroom instruction plus elements of distance education, or by distance education only.

Questions to Ask Before You Consider Distance Education

Distance education, especially on-line training methods, has much to offer for almost any program, but all too often technology is included in the classroom for its own sake without considering student outcomes. Before you begin, ask yourself these questions:

1. What do you hope to accomplish with distance education?

2. Which model best meets your needs—adding distance education elements to existing courses, offering separate classroom and distance education courses, or relying solely on distance education?

3. If you select a combined approach, consider whether you will augment or replace existing elements of your program. If you are replacing elements, be mindful of why—is it to save time and resources, to expand the student's educational experience, or just to add technology?

4. Do you have a successful curriculum in place?

5. Do you have adequate resources available to adapt your current curriculum for alternative delivery methods?

6. Do you have adequate resources available to successfully integrate new technologies?

Planning a Distance Education Course

Research shows that teaching and studying at a distance can be as effective as traditional instruction, when the method and technologies used are appropriate to the instructional tasks, there is student-to-student interaction, and there is timely instructor feedback. The following outline will guide you through the design, development, and evaluation phases of implementing an effective distance learning program.

Design phase. Assess the need for distance learning. Are you attaining your current program goals? Review literature on CMT distance learning research and investigate the successes and failures of other programs utilizing distance education strategies. See Internet Resources at the end of this article for Web sites of university on-line courses.

Examine the audience. Medical transcription students make ideal distance learning candidates, considering the demands of the intended vocation; however, you need to take into account any special needs of your current student population, including socioeconomic status where it may impact the ability to supply necessary resources (Internet connectivity, computer).

Define goals for implementing a distance learning program. See the chart "Distance Learning Outcomes."

Development phase. Develop a revision plan for incorporating distance learning into your training program based on the needs of your program, the audience it serves, and your newly defined program goals. Draft an outline for course content based on your current curriculum. To explore new curriculum options, see sidebar "Choosing a Quality Medical Transcription Curriculum."

Distance Learning Outcomes

Schools

- increased number of applicants
- increased number of higher quality applicants
- improvement in performance during training
- lower attrition rate during training
- increase in job placement

Corporate Training

- all of the above, plus
- decreased expense in transition period
- increased revenue in higher productivity
- retention of trained staff over short term
- long-term retention and loyalty

Review existing learning materials for their adaptability to the new environment. Investigate the availability of software versions of books and training modules.

Organize and develop content. Consider available delivery methods, but don't focus on developing content just so you can utilize a particular method, i.e., take care to avoid using a technological solution to solve an instructional problem.

Select delivery methods appropriate to the instructional content. Analyze the strengths and weaknesses of delivery methods, considering the need for hardware, software, and necessary training resources for both student and teacher.

Select and/or develop new materials, including daily lesson plans, lecture notes, handouts, syllabi, quizzes, and tests.

Develop an evaluation strategy. Plan now for how you will evaluate your program's success, including the collection of data pre-enrollment, during the course, and at its completion.

Evaluation phase. Collect and analyze data according to the evaluation methods you previously established.

Revisit program goals and revise them in light of ongoing research in distance education and your own experience.

Implement changes to your distance education program as dictated by data analysis and revision of goals.

Delivery Methods in Distance Learning

There are a variety of methods that can be utilized for delivery of distance education programs. Some methods can be used for synchronous instruction, where everyone meets at the same time (e.g., traditional classroom, chat room, audioconference) and others for asynchronous instruction, where students log on and participate in learning activities on their own time table (e.g., e-mail and discussion boards). Common methods are described below, including their use in medical transcription education. Note that when a software application is referred to as a "client," it means a program that runs on a personal computer or workstation and relies on a server to perform some operations. For example, an e-mail client is an application that enables you to send and receive e-mail.

E-mail. This is the most basic tool for on-line learning. Teachers can communicate to all students simultaneously by broadcasting a message to a group of e-mail addresses or converse with an individual student, answering a question, or explaining an assignment or concept. Most handouts can be distributed as attachments to e-mail unless they are very large. Consider offering your students a school-based e-mail account (student@yourschool.edu), for example, to solve problems with incompatibilities in proprietary e-mail clients (e.g., AOL) and the hassle of keeping track of changing e-mail addresses every time a student changes Internet service providers. Many courseware packages come with this capability.

Listservs. A listserv is an automated subscription e-mail distribution system, where an e-mail message addressed to the listserv is automatically copied and distributed to all members on the list. A teacher can moderate the list, approving messages before they are distributed or monitoring open

discussion. Settings allow list members to receive each message individually or all messages grouped together in a single daily e-mail, typically called a digest. Listservs can be based on your own server or hosted on a public domain server. Some listserv software is available as shareware or freeware. Messages sent to a listserv can be archived so that students can search the listserv database to find messages on a particular topic, e.g., a student may have a question about material that has already been discussed on the list. There are free Web-based listserv management services (**www.egroups.com**) that allow list members the option to view listserv messages in a discussion board format.

Discussion boards. Discussion boards are frequently used in distance education, second only to e-mail in popularity. Discussion boards are Web-based, hosted on your own or another private or public server. Discussion boards are also called forums, message boards, or bulletin boards. They allow "threaded" discussions where messages are linked by topic, a form of asynchronous conferencing. A single discussion board can be utilized to handle all discussion topics or multiple boards can be employed to discuss individual class topics (a software forum, anatomy forum, professional issues forum) separate from general discussion and socializing among students. A discussion board can also be used to post assignments and lecture notes. Most discussion board applications allow a moderated mode so that a teacher can preapprove messages or be notified by e-mail when discussion moves to a particular topic. An example of message boards organized by topic can be found at **www.mtdesk.com** under the Message Center link.

Chat rooms. Chat room software allows real-time discussion among multiple participants and can accommodate a variety of traditional instructional methods (lectures, question-andanswer sessions, oral exams). Typed messages are viewed simultaneously by all. Web-based chat components are available as freeware and shareware and require only a Web browser on the user's end, allowing a much shorter learning curve. ICQ (**www.icq.com**) and Instant Messenger (**www.aol.com**) are simple chat clients. More versatile chat clients include mIRC, PIRCH, and Ircle (for Macs). In these clients, chat sessions can be logged and distributed as class notes. Open a second chat window to serve as a whiteboard to record key concepts apart from the main discussion area. You can find these IRC clients on shareware sites such as **www.zdnet.com**. For a complete discussion of using chat room clients in on-line training, see "The Virtual Classroom" (*Perspectives*, Summer 1998).

Multi-User Simulated Environments. Another form of synchronous conferencing are MUDs (multi-user domains), MOOs (multiuser object-oriented), and MUSDs (multi-user simulated environments). These applications combine typed messages with user-directed animation, where each participant is represented by a graphical character or avatar that moves in response to commands. In this environment, a student can stand up, sit down, or raise a hand. These applications were originally developed for the video game industry but are used increasingly in virtual education environments.

Desktop Video. Desktop video is another method of synchronous conferencing. With an application like CUSeeMe (**www.cuseeme.com**) and an inexpensive PC digital camera (as little as $100),

a point-to-point connection can be achieved to enable two-person conferencing. Audiographics. Audiographics allow a shared audio signal corresponding with a shared graphical presentation, usually in the form of a slide show. Participants see and hear the same thing. Microsoft Netmeeting (www.microsoft.com/netmeeting) has audiographics capability. Netmeeting also has a built-in whiteboard tool—a nice plus.

Groupware. Groupware is a specialized type of MUSD designed specifically to facilitate remote conferencing. An example of this type of application can be viewed at **www.ventana-east.com**.

FTP. An FTP (file transfer protocol) program is the easiest and fastest way to distribute electronic materials, especially if students are unable to receive large files via e-mail. A directory is established on the school server and materials uploaded by the instructor for student download. Download can be accomplished with an FTP application or with a late-edition Web browser by clicking on a Web page link that points to the FTP file. Graphics and audio files can be transferred easily in this way. See note under Streaming Media about transferring audio files under copyright.

Streaming Media. Streaming media is the technology used for on-line delivery of live radio and video signals as well as for long audio and video clips that would take too long to completely download. The file is compressed for transfer and held in a temporary buffer on the user's PC and can begin to play within seconds of accessing the file. Streaming media is an ideal way to transfer dictation for live medical transcription, cutting costs associated with traditional digital transmission over telephone lines. Streaming media is not as useful for supplying dictation that is part of a training program because training dictation is typically a finite body of work and can be more easily and less expensively provided on tape or CD along with other course materials, e.g., textbooks, for off-line practice. Commercial training dictation is protected by copyright and may not be distributed via streaming media or file transfer without the permission of the copyright holder.

Courseware. A Web-based interface that connects the above-discussed instructional delivery methods can be generated with traditional Web-authoring applications such as Front Page, NetFusion, GoLive, or Web-in-a-Box. Animated tutorials can be created in a multimedia application, such as Macromedia Director (**www.macromedia.com**) that enables editing of graphic, video, and audio files. Specialized courseware packages are available that integrate multiple instructional delivery methods, supply the actual components (chat room or discussion boards), and provide the tools necessary to create password access to the Web interface, such as WebCT, TopClass, FirstClass, Blackboard, and Learning Space. Blackboard offers Web-based courseware, allowing anyone to create an on-line course and make it available on the Blackboard Web site at no cost. See Internet Resources.

Audioconferencing. Audioconferencing can be accomplished with multiple-point connections using a subscription service or an audiobridge, a hardware device that connects multiple telephone lines. Audioconferencing can be set up to correspond with videoconferencing. Telephone, Fax, and Postal Mail. Virtually all distance learning programs employ non-Internet delivery methods in addi-

tion to on-line applications. Some course materials must be shipped, e.g., textbooks. Individual students may require instructional support from time to time via teleconferencing. Fax may be utilized as a primary or alternative delivery method for some course documents. Traditional correspondence courses—still used by many universities as their only distance education course offerings—rely on detailed study guides that allow independent study of course materials. If crucial course material is available only on the Internet, consider a backup access method should there be a major interruption of Internet service or equipment failure on the part of the school or the student.

Developing On-line Study Materials

Most traditional classroom learning activities have an Internet equivalent. See the sidebar Teaching Methodologies for a fairly comprehensive list of activities. Here are some tips for preparing traditional activities and materials you already have for presentation in an on-line environment.

Handouts. Traditional handouts, such as course syllabi and outlines, can be created as HTML documents and posted as Web pages, e-mailed, or made available for FTP download. In HTML format, handouts are enhanced by the inclusion of hyperlinks, allowing students to go immediately to a learning resource with a mouse click. Include hyperlinks for materials on your own Web site and to general Internet resources.

Teaching Methodologies

Brainstorming
Charting
Conducting Research
Cooperative Learning
Debates
Demonstrations
Dialogical Reasoning
Divergent Questioning
Essay/Journal Writing
Games/Activities
Graphic Organizers
Guest Speakers/Resource Speakers
Independent Study
Inductive Reading (concept attainment)
Inquiry
Interdisciplinary Teaching
Lab/Field Experiences
Language Experience Approach
Leadership Development
Learning Stations
Lecturing Multimedia
Multisensory Methods
Open Interviewing
Oral History
Production & Performance
Quality Principles Tools
Reading & Discussion
Role Playing
School-to-Work Process
Simulation
Social Skills
Socratic Questioning
Story Mapping
Teaming
Technological Applications
Thematic Resource Folder
TPR
Transformations
Viewing Film/Video
Writing Process

Lectures. Although a lecture is the least interactive approach, you may have a great deal of lecture material already prepared which can be utilized in an on-line training environment. Lecture material can be enhanced with hyperlinks and posted to a Web page, downloaded via FTP, or introduced in a threaded discussion. Lecture can also be presented in the more traditional synchronous instruction approach in the virtual classroom setting of a chat room. In a chat room, lecture can be typed live or cut and pasted a portion at a time, allowing intervals for student questions. Delivery can be automated in some chat software (e.g., mIRC).

Q&A Sessions. Question and answer sessions in a synchronous environment require the establishment of ground rules to maintain order. In an MUSD environment, students can literally raise their hands when they wish to respond, but a regular chat room requires a response method, e.g., typing a question mark, for a student to indicate he/she has a question or comment. As with a traditional classroom, begin with questions that you know students can answer to encourage participation. Acknowledge every response in a positive way. Avoid a negative acknowledgment to an incorrect response. Even though students cannot be seen, they still feel embarrassment and are sensitive to being singled out or ridiculed by the instructor or other students. Ask open-ended questions rather than those requiring a "yes" or "no" response. If a response does not make sense, paraphrase it to elicit additional explanation from the student. Allow adequate time for students to think and for the response to be transmitted. Some students may experience some lag time before they actually see the question. Plan questions in advance and cut and paste them to the screen, or automate their delivery using scripting tools in the chat software.

When formulating questions, consider the cognitive level they are intending to elicit: recall, comprehension, application of a specific principle or skill, or critical thinking. If the chat software allows private conversations displayed in a separate window, consider dividing the group into teams and allow partners to discuss a response before supplying it to the main classroom screen. Redirect student questions to other students. Log Q&A sessions for later review and/or to make notes available to students not in attendance.

Research Assignments. Students need to learn to evaluate the credibility and appropriateness of information on the Internet. Personal Web pages may contain a wealth of resource material, but medical "facts" gleaned from these pages should be viewed with a critical eye. For example, dietary advice dispensed from Louise's Healthy Heart Home Page should not be assigned equal weight as that obtained from pages maintained by the American Heart Association. Ask students to review the original source of information appearing on a Web site, the age of the data (in some cases the date a Web page was last updated), and the credentials of the authority to whom the information is attributed. The Internet provides immediate access to biographical information, so investigating credentials is easy to do at the time of initial research.

Interactive Learning Tools. In a commercial courseware package you can expect to find amazing tools to help you develop interactive learning and assessment instruments, including those that are self-scoring, passworded, timed, and automatically entered into a database with calculation of the student's cumulative grade. If you are developing material using ordinary HTML editing tools (even a word processing application that can save as HTML), you can still create a high level of

interactivity with a little bit of work. Start by creating a simple multiple-choice quiz taken from main outline information on a study topic. Make each of the multiple-choice responses a hyperlink to a new page. Link the correct response to a page that indicates the selection was correct and a link back to the next question. Additional information about the topic and links to other resources can be supplied here as well. For the incorrect responses, create a page for each, stating that the response was incorrect and explain why. Supply additional explanation, illustrations, tables, and links to other resources, as well as the link back to the next question.

Textbook Readings. Textbooks cannot be translated to an on-line environment without permission of the copyright holder (see Copyright Issues in Distance Education). Material you generate yourself, e.g., lecture presentations, may be posted for on-line viewing or downloading. Investigate the availability of software versions of traditional texts to keep shipping costs at a minimum. Note that lengthy reading assignments, especially those that are heavily academic, may not be accomplished as comfortably at a computer screen, especially if the student is also tied to the computer for transcription practice.

Copyright Issues In Distance Education

Copyrighted material (textbooks, dictation modules) may not be reproduced in any form without the permission of the copyright holder. Converting this material to a digital format for transmission or posting via the Internet is a violation of copyright law and punishable by fines as high as $100,000 per violation. Everyone associated with your training program should become familiar with copyright law as it applies to education.

Note that material published on Web sites may also be protected by copyright, and care should be taken not to reproduce material from a Web site without obtaining permission of the owner. If you want to point your students to material on other Web sites, include a hyperlink with a name and description of the site instead of duplicating material found on other sites. Because medical transcriptionists often rely on both print and Web site resources in the course of their employment, it is recommended that medical transcription students be introduced to copyright law early in their education.

Assessing On-line Students

Evaluation of student performance through testing is necessary in any course to evaluate whether learning objectives have been met. While studying at a distance may be ideal for the medical transcription student, traditional testing methods may not translate as smoothly to this nontraditional environment. For example, it would be impossible to ensure the integrity of a closed-book exam if the students cannot be visually monitored.

When distance education students live within a reasonable distance, scheduling testing activities on campus may be the most efficient solution, allowing you to continue to use existing testing instruments or rely on traditional test construction. Proctored examinations may be arranged at commercial testing/ learning centers as well as at local educational institutions and libraries and are more useful for midterm or final examinations than more frequent evaluations and quizzes. The proctored exam setting may be more appropriate for the administration of traditional academic testing than for transcription skills evaluations that require the availability of transcription equipment.

Courseware packages offer sophisticated testing capabilities that let the instructor develop objective tests that offer immediate feedback on individual questions as well as on total score. Immediate feedback is an excellent learning tool as it allows the test to evaluate and teach simultaneously. Some programs even compile on-line grade books from exam results, easing the burden of traditional classroom management tasks.

Efficient use of reference books is a basic MT job competency. Writing questions that encourage the use of reference books limits concerns about academic integrity. Some software packages offer timed tests, password access, and even IP address tracking. These systems are not foolproof but they are a deterrent to cheating.

Training for New Technologies

Implementing a new technology is synonymous with downtime in most industries. In distance education, it need not be a major impediment if you keep these guidelines in mind:

- Minimize problems by starting slowly with one site and a limited number of students.
- Provide hands-on training for both teacher and students.
- Implement a practice session with the entire class prior to the start of the course.
- Review guidelines for participation in the new environment in the first session.
- Establish rules for on-line behavior and enforce them.
- Provide adequate technical support for the teacher and the students.
- Consider a toll-free hotline for reporting and solving problems.
- At the first class session, educate students on the new technology, how it works, basic troubleshooting, and its strengths and weaknesses as an instructional medium.

Evaluating Your Distance Learning Program

Every educational program should be evaluated on an ongoing basis. By designing your program evaluation at the same time the course is developed, you can collect relevant data more efficiently. There are two types of evaluation. **Formative evaluation** is conducted throughout the course on both a formal and informal basis to make minor adjustments—fine-tuning if you will—and to correct problems as they occur. A **summative evaluation** is a formal end-of-course evaluation.

Evaluations can take the form of survey instruments, exit interviews, pre- and postcourse testing, performance logs (e.g., production and accuracy throughout the course), and direct observation. Measurement of actual student outcomes through final skills testing and job placement rates is the most significant indicator in a vocational program. Other areas you may wish to explore include identification of strengths and weaknesses of the course or program, recommendation of the course to others, what the student or teacher would have done differently in terms of including or excluding material, and so on. Specific technical or administrative problems can also be identified during formative and summative evaluations, e.g., adequacy of software training, hardware or software failures, timeliness of teacher or tech support feedback, ease of use of course software or Web sites.

Internet Resources

These Web sites contain resources for anyone considering on-line training, including information on software applications, hardware, consulting and solutions services, and links to on-line courses. Just a single descriptor of the site is shown here, but some sites do offer multiple resources, i.e., you might find course-authoring tools, hosting services, and examples of online courses all on the same site. If you would like to receive an e-mail containing actual hyperlinks to these Web sites so you can click on an individual link rather than manually enter it, send your request by e-mail to the author at **ggreen@hpisum.com**.

www.courselinks.com (on-line learning technology solutions)
www.jonesknowledge.com (on-line learning technology solutions)
www.blackboard.com (free on-line course hosting)
www.syllabus.com (conferences on technology in teaching)
www.academicoop.com (Microsoft's instructional grant program)
www.eduprise.com (on-line learning technology solutions)
www.webct.com (course authoring tools)
www.convene.com (on-line learning technology solutions)
www.msui.com/morningstar/audio.htm (audioconferencing service)
www.ecollege.com (on-line learning technology solutions)
www.ataccorp.com (on-line learning technology solutions)
www.hied.ibm.com/igc/ (IBM Global Campus)
www.geteducated.com (distance learning consulting)
www.rdra.com (on-line learning tech/consulting)
www.maxum.com (NetCloak application)
www.blyth.com (OMNIS Studio 2.1 application)
www.asymetrix.com (Toolbook II Instructor application)
www.trellix.com (Trellix 2.0 application)
www.wcbinfo.com (course authoring tools)
www.compaq.com (Proliant 2500 Server)
www.sony.com/professional (EVI-30 Pan Tilt Zoom Camera)
www.webtv.com (WebTV Network)
www.softarc.com (First Class Intranet Server)
http://project.bio.iastate.edu (on-line course)
http://renoir.csc.ncsu.edu/RTCPP/WLS/CLASSES/CSC311/ HTML/lect1/start1.ram (on-line lecture)
www.microsoft.com/windows/windowsmedia/techshowcase/ (streaming audio resources)

GREAT BEGINNINGS:
What to Do on the First Day

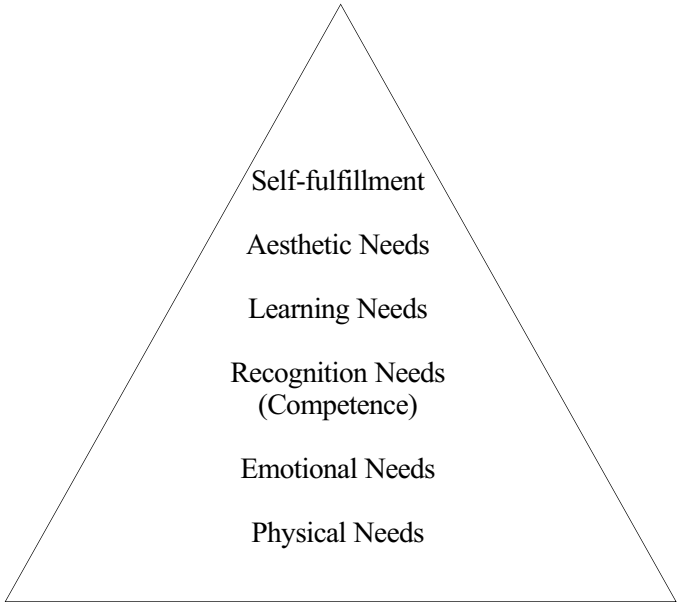
by Susan M. Turley, CMT, MA

For most teachers, the longest, loneliest minute of life occurs in facing the class for the first time, when students quiet down and look up expectantly."

Where to begin and what to do on the first day of a class can seem both overwhelming and perplexing, particularly to an inexperienced teacher. The tips below can help to provide a smooth introduction in a medical transcription course for all of your students. Your efforts will produce students who can work confidently and productively in the weeks ahead.

1. **Provide a relaxed atmosphere.**

Begin by assessing your classroom, its equipment, lighting, temperature, and so on, to assure that they are conducive to learning. A modified version of Maslow's hierarchy of needs is presented here to clarify the point that physical comfort must be established before the student can progress to the next level. Fear and anxiety caused by unclear expectations for performance can prevent students from reaching the level where learning takes place.



The Personal Touch. Rather than immediately plunging into course content and requirements, take a few moments to allow students to become acquainted with each other. Ask them to stand and introduce themselves and state what they hope to gain from the course. By developing a cooperative atmosphere in which students feel a part of the group and not isolated, you can help to allay fears. Research has shown that a strongly supportive peer group in a learning situation helps students to cope successfully with the frustrations inherent in learning a new skill.

Slow and Steady. When you do begin to present course material, proceed at a slower-than-normal pace. When every part of an instructional process is new, students need extra time to understand detailed instructions. Speak slowly and allow pauses during which students can mentally digest what you have presented. There is nothing more frustrating than having a teacher present course requirements so quickly that they become impossible to remember one minute after class ends. Remember, your students will not be able to immediately see patterns of learning in your course and will not be able to initiate their own learning/studying process if your presentation is hurried and pressured.

As a new teacher, I remember that my only thoughts on the first day of class dealt with how much material needed to be covered in such a short time. I wrongly felt that if we did not plunge right in and frantically begin to work on the first day we would fall so far behind that we could never catch up for the rest of the semester. That was certainly a misperception on my part and I am sure it caused quite a few anxious moments for my overwhelmed students.

The Old Dog/New Trick Problem. Every learner, regardless of age, has feelings of anxiety when confronted with a new learning situation, particularly if the learning involves being graded or evaluated in any way. It is important for the teacher to acknowledge this anxiety and discuss it with the group in order to help defuse it. Humorous anecdotes or sayings on the chalkboard can provide a release of tension for the group.

One simple exercise which acknowledges the difficulty of learning a new skill is to ask students to fold their arms across their chests in the usual way that is comfortable for them. Then ask them to fold them with the other arm on top. This usually provokes laughter and strange arm movements as the difficulty of this seemingly simple task becomes apparent. The teacher should then remind students that learning transcription is a manual and mental skill requiring some time to properly coordinate and that they should not be frightened or become overly frustrated if their efforts do not immediately produce perfect results.

2. **Provide general, then specific, information.**

Before dispensing specific course information, make sure all students know important general information such as the location of the restrooms, lunchroom, supply closet, and so on.

Always have a course syllabus and weekly reading assignments sheet prepared. Go over this information very slowly, reading it aloud while the students follow along on their handouts. Read through at least three weeks to show the repeating structure of the course objectives and assignments. This helps students get a sense of continuity within the course. Also, cover the scope of the course. First, present the big picture (the entire course) before you discuss all of the details. This will give students a framework on which to hang the details you discuss later, such as grading policies and testing.

Display and discuss required textbooks. Students will then know if they have purchased the correct texts, and your positive comments about why the texts were selected will generate confidence.

3. **Provide a brief taste of course content.**

In a medical transcription course, you may wish to play one or two carefully selected medical reports before you have the students actually working with the transcription equipment. It would also

be helpful to demonstrate actual transcription skills to them yourself. Put the transcriber on "audio" and do two demonstrations: first, show how a beginning student should correctly listen and then type; then show how an experienced transcriptionist can begin to type and continue typing while listening to the dictation. I never realized when I was teaching that my students had little chance to observe me as a role model demonstrating my skills as a medical transcriptionist—the very thing I wished most for them to emulate.

In short, make the first day of class a relaxed, confidence-building experience for your students. "We tend to forget how difficult it is for [students]. . . . Our grasp of our subject matter is apt to become automatic. . . . It is our duty to assume nothing and explain everything."

Teaching Study Skills, Part 1

by Marcy Diehl, CMT

I am no expert on studying, but this is a pretty important subject. So important, you probably want to help your students with it. Some schools offer minicourses or weekend seminars on time management and study skills. However, we often find our students have already started our courses and need help right away.

I realized that I personally needed to help students with study skills when I kept hearing stories like, "I studied for four solid hours for that test and did not do all that well." "I read that chapter over and over and it didn't make any sense to me." "I haven't been in school for years, and I have forgotten how to study or even if I ever knew how." This is written to give you some ideas to give your students through a simple lecture on tricks for meaningful studying.

To students I say, first of all, the hardest part is getting started. Secondly, not knowing what to do next can prevent you from getting started on time—in other words, too little, too late.

Let me begin by defining what I mean by "studying" as interpreted from the students' viewpoint. *Studying* generally translates to "preparing for a test." Other "studying" is reading an assignment for discussion or reviewing lecture notes. I am going to give some general ideas for studying that are specific to test-taking. In a future article, I will discuss some hints on note-taking from lectures and reading. The subject of studying is easier when one can be specific about a particular subject and a particular test, e.g., a multiple-choice terminology test. Here are some general and universal hints.

Since the hardest part of studying is getting started, **have a plan**. This is vital. The plan consists of:

1. The time available for study.
2. The material to be covered.
3. How to cover item 2 in item 1. (Note: Too much time is as bad as too little.)

Making the Plan

The first study session is easy—this is vital to overcoming the "getting started inertia." Select a period of time as soon as possible (right now is good) with just a single goal: making your study plan. After you have your plan, you are **finished** for that study session. It is important to be very clear about your goal and rewards. In this case, the reward is the fact that you have started and you have completed the first session. You are finished.

During the planning session you decide exactly **when** to set your **study times**. These are blocks of 50 minutes only. They can be at different times of the day, one per day each weekday, or several sets of blocks with increasing breaks during one day of study. In the beginning, different times of the day should be tried if this is possible; otherwise, just pick the 50-minute sessions. Shorter sessions are fine but longer ones are not acceptable. (You will be setting an alarm or timer.)

Select your **study site**. The site must be as far away from distractions as possible. It should supply you with two or more seating arrangements so you can shift your body around. If possible, set up the study site for the first study session; you will need a timer, books, references, paper, pencil, computer, and so on.

Map out the study session blocks. List the time and write in the **goal** for each block (read or review so many pages, put lecture notes on computer, make flash cards, review study questions at end of chapter, redo exercises for a particular chapter). The point is that the goal must be exact and stated and appear to be obtainable in the time block.

The next part of the plan is to write in a **reward.** Now this part is more difficult but vital. Rewards may be simply a 15- or 30-minute break with an apple and a trip outdoors. It can be folding the laundry, reading the mail, pulling weeds, taking a bath, sweeping the floor, reading the catalogs that came yesterday, washing dishes. If it is to be followed by another 50-minute study session it should include a food reward plus a movement reward like going to the store for groceries or walking the dog. It is important that the break be something that does not require a lot of thinking or mental gymnastics.

TV watching is not a particularly good reward unless you can utilize a VCR and have a program saved as a reward. Turning on the TV for a break can chew up the very best of intentions. (We won't even discuss studying with the thing playing.) Do not even plan your study sessions for times when your favorite TV program is on unless you plan to tape it for a viewing reward. It is good to obtain interesting food rewards to have on hand and available.

During the break there should be no focus on the study material whatsoever. One thing that keeps you from starting to study is the little items that should be done first so "I can have a clear head for the task ahead." "Make that phone call, tidy up the desk, sew on that button, clean off the counter in the kitchen." Stop here. Those are excellent rewards! Write them down and "let" yourself have the pleasure of doing them during your break, not before. Even things you don't want to do but should do are excellent rewards during your break.

Now you have your plan. Let's check: you have your plots of 50-minute study times identified by the time of day. You have written in what you plan to do during that time; you have a list of specific or general rewards to include food, rest, chores, or exercise; and you have selected and set up a study site.

If you have planned just one study session per day, every day during the week, it is a good idea instead to make two sessions in one day and give yourself a day off. (Days off are just that—no worrying about studying. The day off is the reward for studying properly.)

First Study Session

Study is about to begin. You have informed others that you are not in when studying, and that means you are not available for conversations (wonderful rewards), questions (they will save), telephone calls, and visitors. The answering machine that is perfectly capable of handling calls when you are away is equally capable when you are studying. Playing the messages back is a fine reward.

The study area is set up ahead of time as outlined above and the plan for this session is reviewed. You set your timer and begin.

When the 50-minute study period is complete and you are right in the middle of something interesting or studying is going particularly well, *it is a perfect place to stop*. It is a mistake to continue at this point. Stop and write down exactly what you are going to do during the next study session in order to pick up where you left off. This is very helpful because it means that when you come back you will be fresher and more excited to begin. However, if you find yourself nearing

the end of the study session and looking at the clock all the time, *stop*. Write down what you are going to do differently when you come back to overcome the boredom problem. Try to come up with the cause of the boredom and one or two solutions to solve it. Enjoy your reward anyway.

Next Study Session

This may be later the same day, the following day, or just a 30-minute break from the last study session. It makes no difference. If you set your plan to work this way, follow it. Review your goal for this study period. It may be to simply pick up where you left off or may be entirely different. This is not important. What is important is that you have a plan, you are sticking to it, and you have a goal. Set your timer and get to work.

Finally . . .

Always report to your study site, review your goal, set your timer, begin, stop on time, enjoy your reward, and check to see when your next session takes place.

Does it work? It can but it won't if you don't give it a try. You will feel good that you have accomplished your plan and you have truly studied. When students say they have studied "non-stop for 4 hours," they may have really unhappily studied for only 50 minutes with no plan and an unclear goal, feeling unfocused and tired. You see, 50 minutes is the magic number because that is just about the limit of focused attention.

Unless you are a night person, don't study late at night, and always do something pleasant for at least 30 minutes before retiring or you will dream about the study material and not get proper rest. Studying "all night before a test" is obviously not recommended by this plan so why discuss it.

Let's get specific. Tomorrow is your terminology final. It is noon. You have purchased some fruit, candy, and nuts. There is a delicious take-out meal waiting to put in the oven for dinner. You have saved the latest *Reader's Digest.* You have the rest of the day and night. Get started. At 12:30 you are going to sit down and **make your plan** for the rest of the day. You decide the first session will begin at 2 p.m. and you will not study later than 10 p.m.

Excellent. You can do the rest.

Teaching Study Skills, Part 2

by Marcy Diehl, CMT

In the last article I discussed some ideas that you could share with your students on how to study for a test. This time I have a few ideas to help students take notes effectively during a lecture, read the text, do homework, and participate in study groups.

Lecture Notes

The easiest way to teach students how to take notes during a lecture is in the lecture itself. In my presentation "The Body as a Whole," I stop repeatedly throughout the lecture and point out what is "happening" during the lecture. Students know ahead of time the purpose of the lecture, and I also tell them that a practice test, with no score recorded, will follow. This allows me to also discuss how the test will be set up. Providing an outline of your lecture material also helps: subject, main topics, sub-topics, special points, and so on. I did this and showed them how it works. But you should present this lecture on note-taking so they can learn to take notes from other instructors who may not provide this tool.

Some students think they have to write down every word you speak. Start out by telling them that this is a mistake and they need to learn quickly what is vital and what is "filler." They need to watch and listen carefully to select what to write. Some of the presentation points to the important items, other parts are interesting, even entertaining. How does one tell the difference?

Good presenters begin the lecture with a list of the important ideas they want to introduce. (Sometimes the test itself is written first and the lecture developed around it.) Some lecturers may attempt to include the students as participants in the lecture to interact with the material. The problem for the student remains the same: "What is going on here that the speaker feels is important for me to remember?"

For note taking, students should have lined paper, good writing materials, pencils (previously sharpened), and a contrast colored pen or pencil. I ask the students to draw a line vertically down the middle of the paper. To the left of the line, they write down the material they feel is important. The right side of the sheet is saved for questions, remarks, and so on.

Student: Again, watch as well as listen. You can't listen at your best if you are busy writing. Watch the body language of the speaker. Sudden interest or animation in the voice of the speaker is a clue: "Listen up. What I'm saying is important." Verbal clues abound in the words of the speaker: "one often forgets," "one vital thing," "four points I want to make." You really can't miss out on these.

When the speaker writes on the display board, watch carefully as you copy the material and see how the speaker reacts to this material. Did the speaker underline, draw a circle, point repeatedly, make arrows and so on, using specific parts of the material?

If you are told there are four points and you only hear three, immediately note this on the question portion (right side) of your sheet so you don't forget to ask about it. Be ready to respond when the lecturer attempts to involve you in the presentation. Don't feel that you always have to respond correctly when a general question is posed. The reason you respond is to prove to yourself that you have been listening and taking notes properly, not to prove anything to the other students or the instructor. Jotting a single question mark on the right side of the sheet with an arrow going to the left

side of the sheet where you have a question will have you prepared when you hear the teacher ask, "Are there any questions?" Ask for words to be spelled, defined, used in another context, and so on.

When asking a question, it is better to say, "Let me see if I have this right" rather than "I don't understand." This gives the speaker an opportunity to teach the material correctly rather than to pull from you exactly what part of which material you did not "understand."

You can force poor speakers to be better if they give you the chance. When they ask for questions, be prepared to force them to join facts, relate back, and clear up data. Do you as a student have some control during the lecture? Yes, you do. That is the point. Through good listening and watching, you can help draw the most important material from the speaker.

Teacher: Teach students "quickie" note-taking shortcuts for words you know they will hear a lot, "mm" for mucous membrane, for example. At the end of my lecture on how to see the body as a whole and take lecture notes, I ask questions about the note-taking, not the body parts. They often are surprised when I ask which part of the lecture *I* (as the lecturer) found dull and which part exciting. What did that mean and how did they know? I ask which items might be found on a test and why. If no one has pointed it out earlier, I ask them to list the eight body systems we will study in the weeks ahead (I had given only seven), if there were any tricky words (*mucus*, *mucous*, *mucosa* were mentioned several times and written on the board), and so on.

Student: What do you do with your notes when the lecture is over? Ideally you flesh them out as soon as possible. Your key words are filled in with the accompanying material. You will surprise yourself with the number of things you recall from just the key word or words you have recorded. Now fill up the right side of the page with ideas and questions and use your contrast pen to underline either side of the page.

Reading the Textbook

Studying from the text is actually easier because the student has control over how much to study at one time and when and where the studying will take place. The hints given for studying for a test in Part 1 of this article could easily work well in preparing to study from the text. Again, the time of day, the amount of time allotted, and the place of study are important.

Student: Before actual study of the text is begun, you should read the introduction to the book, even if the instructor has not assigned it. Learn how the book has been set up and what the author has done to make it an appropriate and valuable text. Decide how to attack the target pages assigned. If there are many, then break them down into more than one study session.

For study of a chapter assignment, look in the book to see if followup questions have been provided at the close of the chapter. Go over these carefully before you begin. See if they match up with objectives, if given, at the beginning of the chapter. Look at all the illustrations in the chapter to see how many of them relate to the followup questions. See if you can decipher what the figure or illustration is trying to teach without reading the legend.

Now go through the chapter and read the names of the main topics and subtopics. See how many of them relate to the followup questions. Put the chapter aside and do something else and think about the material you have just scanned.

When it is time to read the chapter, again review the questions at the end of the chapter. As you read the chapter, use a pencil and make check marks or notes in the margins where you find important material. (Highlighters often keep one busy and give the false impression that since you are doing something, learning is taking place.) When you have finished the chapter, reevaluate your pencil notations and see if you need to re-read any area.

In your study notebook, write a summary of what you have read as you finish each main topic. Don't copy down what the author said; recall what you think is important. Make sure that what you have written agrees with the text. Look at your notes and see if you are going to be able to use them to study. Answer the questions at the end of the chapter, using your own words. If you cannot recall the answer and your notes do not reveal it, return to that part of the chapter and rewrite the material in your own words. Remember not to spend more than 50 minutes reading and working on a chapter without a break and reward.

Homework and Study Groups

Doing homework and studying as part of a study group is one of the very best ways to study. However, organizing a study group can often be difficult because of all the various schedules of students and locations of their homes.

It is a good idea to have an outline on how study groups should form and work together to help facilitate the creation of the group. Even one study partner is better than no one at all. If you have time during class, ask students who are interested in joining a study group to meet after class for several minutes to see if they can agree on times and places. Before they part, they should exchange names and phone numbers. A temporary leader is selected, time and place agreed upon, and material to be discussed specifically defined.

Some general rules:

- Meetings are to begin and end on time.
- Each student in turn is expected to participate in whatever way the group decides.
- The leadership role should rotate.
- Before the group finishes the session, the next session must be planned.

Ideally, the group leader reports to the instructor with problems, questions, and progress reports. I have a set time each week to meet with the leaders of each study group. This takes very little time, and all the members of the group seem to respond better when they know that their activities are being monitored.

In my experience, the groups that stick together the longest and are the most productive meet briefly immediately after class and have their study session the hour before class begins. The groups of two are as productive as the larger groups.

Groups are my favorite study aids because I have seen that everyone wins. All the students benefit because when they teach, they learn.

Teaching Punctuation

by Marcy Diehl, CMT

If that title didn't scare you into turning the page, I don't know what would. Students and teachers alike run screaming from the topic, and it even makes working transcriptionists look off to some far horizon, as if you were talking about the coming sunrise or sunset instead of the importance of correct punctuation.

What is there about the subject of punctuation that has made it an instant "turn off" (to quote my students)?

Let's Talk About Students

Nearly all my students feel that English writing is an area where they have big gaps in their learning. Often they are dismayed to see that it's even a topic for discussion, much less weeks of classroom work and homework drills. They didn't know they would have to learn about this subject—and they don't WANT to learn about it either. What is going on here?

I address this problem by determining when a student graduated from high school. Recent graduates may have received diplomas with little or no formal training in punctuation. Some modern high schools don't want to "turn off" students with boring subjects they don't want to hear about and won't study anyway, so many students are given opportunities to study subjects they like. Students who have been to private schools or who have attended their 50th high school reunion do just fine.

I don't know who students think will punctuate documents; in fact, they seem to think they don't need to worry about it until they turn up in class and get the bad news.

Teachers Play a Role

Teachers are the second part of the problem: We don't want to teach subjects in which our own skills may be inadequate—we enjoy teaching things we like. (That's why it is so much fun to listen to a medical transcriptionist talking to students about the career field.)

One of my students gave me a clue when she remarked, "We were supposed to learn to punctuate in the sixth grade, but the teacher said she didn't like it so we didn't have to do that unit. She said we would pick it up later on." I don't know when one is supposed to "pick up" something so complex. Teachers who are unsure about punctuation and can't answer questions on the subject are going to give a quick hit-or-miss lesson with no in-depth skill development. I once listened to a teacher tell a class that punctuation marks were sort of arbitrary anyway, and in the "real world" the reader of a document was as unclear about placement as the writer, "so give it your best shot." In other words, this is a style issue and you are free to use your own.

Before we can teach punctuation skills, we have to learn them ourselves. When we are in command of the rules, we will be able to drum up interest in the hearts of our students and, of course, make some headway teaching.

Getting Started

Don't begin with the rules but with **reading.** Select a periodical (*Perspectives* will do just fine) and read an article, any article, not for content but for punctuation. Notice commas, semicolons, colons, and dashes.

Keep going. Select a paragraph and count the commas. Look at them and see if you would leave any of them out (those arbitrary demons that are "style"). Can you give a reason why? Can you give a reason for leaving any in?

Now read this publication for content and select an interesting paragraph or two to copy for your students. Lead them down the same path I have taken you. Discuss what these commas are doing for the reader—the reader who, by the way, did not notice them at all when they read for content. Good punctuation works that way!

Next, copy interesting sentences, leave out the punctuation marks, and ask students to supply them. When you go over these together with the proper punctuation inserted, discuss why these marks were used and give praise where they were used correctly. This leads to learning the rules.

Rules should be introduced with fairly easy sentences. Begin with sentences that contain commas only. Commas are the most frequently used (and misused) punctuation mark, and it helps if you can avoid talking about the rest of the marks until students are comfortable with commas. Let them become comfortable with their new skills, then slip in the more complex material from the "real world." I try to avoid discussing "optional commas" early on. Actually, very few commas are optional with good editors and very few commas have been eliminated over the years. There are some commas that don't seem to do much work, but as long as they're in the rule books, we don't have the choice to call them optional.

Before you go on to the next punctuation mark, give out sentences that have been improperly punctuated and ask for students to clean them up. Students feel they are learning when they can see that something is not right. (No tricks here—students don't like "maybe it's right, maybe it's wrong" at this stage of learning.)

Exercises

The following is a list of target sentences from various past issues of *Perspectives* for you to try. Remove correct punctuation marks and put in marks that look as if they might be correct but are not. The information in the parentheses following the sentence is to assist with explanations for the punctuation mark(s).

1. I then move on to the contractors and am responsible for the actual running of conduit and cabling that the job requires. (Students may be tempted to put a comma after *contractors* but it is unnecessary.)

2. These records might be boring to us, but they contain the most private and intimate details of people's lives. (Two independent clauses; possessive.)

3. I certainly would not want my private records or those of my family treated in a flippant, nonchalant way. (Coordinate adjectives. Optional commas enclosing *or those of my family.)*

4. You type a message or create an attachment and send the e-mail off to a friend. (Compound. Optional commas to enclose *or create an attachment.)*

5. Use e-mail for your light conversation with on-line friends but not for transmitting confidential information. (Compound and compound modifier. A comma may be used after *friends* to show contrast.)

6. Occasionally, people must use e-mail to transfer their files; sometimes there simply is no better alternative. (Non-essential word introducing an independent clause, and two independent clauses with no coordinating conjunction [separate into two sentences].)

7. The path to excellence in medical transcription can be a rocky one, and school is just the beginning. (Two independent clauses.)

8. Having made the investment at any school, it is up to the graduating student to determine what is to be made of the education received. (Introductory clause.)

9. If the student has the right attitude and aptitude and has studied hard, at least a rudimentary knowledge and skill set should be in place at the completion of the program to serve as a foundation for future learning. (Compound introductory clause. Optional comma after *aptitude.)*

10. The savvy graduate understands that an employer will have to invest many months, often as much as a year, introducing a fledgling medical transcriptionist to thousands of additional words, teaching advanced technology and listening skills, proofreading for hours, and providing feedback. (Nonessential phrase, series.)

11. The thyroid is a butterfly-shaped gland in the lower anterior neck. (Compound modifier.)

12. You may not get an opportunity for an interview the first time you contact an employer, but you can bet that your name will be remembered if you make a good first impression. (Two independent clauses. Optional comma after *remembered.*)

13. His mother who had accompanied him had noted that the face was puffy. (Optional commas enclosing *who had accompanied him.)*

14. Provide the name of the person or organization that referred you or mention where you learned about the business, the practice, or the facility. (Series.)

15. He had no symptoms of hyperthyroidism such as palpitations or shakiness. (Optional comma before *such.*)

16. Most striking is that physicians must follow their clinical judgment even in the face of conflicting data. (Optional comma after *judgment.*)

17. Your cover letter and resume should be as carefully prepared for faxing as they are for mailing or presenting in person. (Students may be tempted to add one or more commas incorrectly.)

18. The new medical transcriptionist who has the future in mind will not be satisfied with learning only what can be taught in the workplace but will seek out additional mentorship and continuing education. (Optional commas enclosing *who has the future in mind.)*

19. When an area in the hospital is to be renovated, it is my responsibility to work with the architects. (Introductory clause.)

20. Florida Hospital Waterman, a sister hospital (but not one of our satellites) in Eustis, Florida, asked if I would consult with them one day a week. (A nonessential appositive combined with a nonessential phrase. Students will be tempted to do a variety of interesting things with this sentence!

Helping Students Perfect On-screen Editing

Marcy Diehl, CMT

Since many of our students are employed by firms that send their transcribed documents off-site to be printed or otherwise stored, it is helpful if students begin to practice on-screen editing skills while still in the classroom.

When I first began transcribing, I was spoiled by the fact that I could peer directly at the printed page poking itself right out of my typewriter—instant printout! Maybe that contributed to my habit of continuing to do my final edit on the printed page. Today this has become a luxury MTs may no longer have.

For years, most of us did a pretty competent spellcheck and grammar edit on screen, followed by a print preview. Then we went right to "print." Few MTs were so satisfied with their on-screen editing skills at that point that the document was considered finished and complete. Certainly my experience taught me that I had to carry out the final step— reading the hard copy.

Time and time again, I found that I had additional editing to do. It was a rare document that "made it" the first time. There were problems with punctuation and also with words that looked fine on screen and seemed to be spelled correctly but were not. This led to further corrections and another printout.

What a waste of time and paper! I have great sympathy for students who struggle with this issue. So on-screen editing practice is not only important, it is vital if the student is to be prepared for the real world of work.

Students should first begin editing their transcription practice work on-screen. After several weeks an on-screen editing test can be given. Preparing such a test is not difficult. Begin with a document with a known number of errors. (A final test should be more realistic, with an unknown number of miscellaneous errors.)

Prepare a test disk by typing sample documents and altering them to produce errors. Make sure that your errors can pass through a spellcheck. One easy way to do this is to use a scanner to scan in a perfect document, which will produce a document full of scanner errors. Then add additional errors as necessary. Your original document will serve as your answer key. (You may do this with Example B included with this article.) Try to keep each document to one page. Place documents on a disk for students to download and edit. The edited documents are printed out and compared with your printed answer key.

Scoring on-screen editing tests depends on what concepts you are teaching. I personally penalize papers when students do not bother to use the spellcheck or "print preview" features of their software. (When the computer will do work for you, it is really careless to ignore it.) You may want to weigh errors based on the student's level of general competence. Certainly students who are preparing to enter the work force should be accomplished on-screen editors. What fun when the students find an error you made in the so-called correct final document!

Examples A and B are provided to get you started.

Example A

Assignment Instructions

Transcribe your first practice document.

When you have finished thoroughly proofreading it and are satisfied that it is clean and ready to be sent off-site for printing, print and then proofread the document. Mark this copy "First Print." If you find errors, then correct them, make an additional copy, and underscore the corrections you had to make. Label this "Final Print." Turn in your one- or two-document copy for scoring. This document will be evaluated and any additional errors circled.

Take your returned document and make a list of the types of errors you did not catch in your first on-screen editing and in the final copy. Use a notebook so that notes can be added each time transcripts are evaluated.

You will be on your honor when evaluating your documents.

Example B

There are 27 errors in this document. Please find errors and correct them before printing. Submit first and only print out for scoring. Write your name and today's date at the bottom of your document.

Last name, First name patient

This is a 27-year old white female who comes to me today with the chief complaint of abdominal pain and diarrhea for the last three months. She states that she has been having extreme pain mostly in the left upper quadrant especially with diary products to the point where he is unable to eat. She feels nauseous at times an has diarrhea on and off. She denies any emesis any excess flatulence or emesis, burping. She denies any blood in her stool. She denies any other resent, illnesses. She did give birth sex months ago to a boy which is her third child. She denies any problems with that pregnancy. She does state that she has lost approximately 10 lbs. in the last 3 months do to this problem.

Physical examination reveals alert and oriental patent in no apparent distress. Abdomen is soft, there are positive bowel sounds in all quadrants, there is diffuse tenderness in the left upper quadrant. There is no masses palpable. Rectal examination done 10 days ago showed Heme-negative stool.

IMPRESSION:
1. Dyspepsia, rule out gastric or duodenal ulcer.
2. Weight loss secondary to abdominal pain.

PLAN:
At this time I will check a Chem 17 an and amylase level, stool culture was negative last week. I will also get an upper endoscopy to rule out any ulcer. Patient was instructed to use tums on a regular basis, to avoid diary products at this time, and further follow up recommendations will come after endoscopy. If she has any problems in the meantime she is instructed to call me at my office.

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D: 10/31/XX
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1. year-old
2. quadrant,
3. dairy
4. , to
5. she
6. nauseated
7. and
8. emesis,
9. recent
10. remove comma
11. six/who
12. lb
13. due
14. oriented
15. patient
16. soft. There
17. . There
18. are
19. hyphen
20. chem
21. and an
22. level. Stool
23. Tums
24. dairy
25. followup or follow-up
26. meantime,
27. dictating doctor, MD

Tips for On-screen Editing

1. Turn off the automatic spellchecker. This forces students to read the completed document carefully and look for spelling errors and the use of wrong or incomplete words. (With automatic spellcheckers, students may look only at words that are highlighted, assuming all others are correct. That is how *an* becomes a substitute for *and, bad* for *bed, to* for *too, you're* for *your,* and so on.) As a final step before printing, be sure to turn the spellchecker back ON to catch any overlooked typos!

2. Be sure that words are not left out or the endings of words omitted. The past tense "ed" may not appear, and often a word is left off at the end of a sentence or even in the middle of the page if other corrections have been made there. (Students should take care to edit only the word or words they want and not take out those bordering on the target word.)

3. Increase the size of the font. When words are larger on screen, it's easier to see when some are not correct. That is how to instantly notice words like *bad* as a substitute for *bed*. (Remind students to reduce the font to the proper size before sending and/or printing.)

"Diehl, Marcy" <mold2@earthlink.net>4. Check for grammar; singular and plural forms. This requires carefully going over sentences, checking antecedents to match the subject with the correct verb form. Students should keep lists of the so-called problem words to be on the alert for (with *affect/effect* leading the group). When one of these words pops up in an edit, they should stop and examine it carefully.

5. Capitalization/lowercase letters. Drug names and abbreviations cause the major problems here, followed by incorrect capitalizations of place names or medical specialties. Check punctuation with all abbreviations.

6. Punctuation check done slowly and carefully. The most common punctuation errors occur with comma faults (one comma placed correctly and the other one is missing; a comma used instead of a semicolon), leaving commas out that are required, or putting in a comma where one does not belong. Students should have a reason for each mark of punctuation.

TEACHING METHODOLOGIES

Teaching the Use of Reference Books

by Marcy Diehl, CMT

I have noticed three things about teaching students how to use reference books: it is vitally important, it is not easy to do, and it is not an easy skill for students to learn.

Since I know how vital this is, I have tried to determine how to set up a method to get the important points across to the students in a way that can be handled easily in the classroom. I begin with a display of a variety of available references, demonstrate how each one is set up, present some hints and a method of use so that students can successfully make a selection and research material, and follow up with a practice session.

Listing the references. Begin your demonstration with your classroom library. If you do not have many reference books in your collection for the students to use, borrow some from your personal library and bring them in just for the presentation. Before class begins, have these displayed in the following categories:

I have the above list on a handout, but I could also write it on the board or use a transparency. This demonstrates the scope of the references, and the students can see where I am going with the discussion. They can also add specific names to the books in the general categories.

Naming the books. Before I begin the demonstration, I talk about the names one might call these books. I suggest that they take notes on these references and to begin with these names. For instance, one seldom remembers the exact name of some books so it is easy to just call the book by the name of the author. Therefore the reference book for surgical terms is referred to as "Tessier," the drug guide as "Drake and Drake," the body system approach book "Sloan," and so on. The dictionaries are simply called *Dorland's*, *Stedman's*, *Taber's*, *Webster's* (or the *Stedman speller*, to make a differentiation). The books confined to certain medical specialties are called by that specialty. When there are several examples of a single entity, then both names are used: "Logan's abbreviations." I remind them at this time that when they come to me for help in using a reference, I will generally use this method and might ask, "Have you tried to find it in 'Vera Pyle'?" (Vera, of course, rates two names!)

Demonstration

Dictionary. Beginning with the first book, each book is picked up and named. I let the students get the feel for the direction we are moving by asking them to tell everything they know about the first book: the regular dictionary. I ask for its name and most of them have the idea and call it "Webster's" and not "dictionary." Next they start calling out all the things they would find in this reference. (Be prepared with your own list for items they may forget.) It is rather stunning to hear all the facts available. One might ask a student to write these on the board as they are called out. I ask how the book is set up (alphabetic) and we discuss front matter and back matter, tables and indices, pronunciation

Dictionary
- Regular
- Medical
- Computer spellchecker dictionary

Drug Books
- *Saunders Pharmaceutical Word Book*
- Other drug references and spellers

Spellers/word books
- Alphabetic
- Body systems or medical specialties
- Exclusive to one medical specialty (such as the HPI *Words and Phrases* series)

Miscellaneous
- Abbreviations
- Atlas
- Difficult-to-find words or expressions (such as *Vera Pyle's Current Medical Terminology)*
- Encyclopedia
- Eponyms
- Homonyms
- *The Medical Transcription Workbook*
- Medical Society membership roster
- *The Merck Manual*
- Pictorial
- Style guides
- Telephone book
- Terminology text
- Textbook for class

keys, the use of synonyms and antonyms, and explanatory notes. Since many of the points you want to make are in this initial presentation, don't rush it.

Medical dictionary. I don't have to do anything with this one because their textbook has a lesson on it that they have completed. I always follow that exercise (and the one with the *PDR*) with this demonstration. If you do not have a unit on the medical dictionary, then it is important to follow a plan similar to that used for the English dictionary. Don't rush this one either.

Much should be made of the fact that the adjectives are listed under broad categories of nouns and how it is much easier to find them in this manner. (For instance, to locate *Brudzinski sign,* one goes directly to the entry *sign*.) By now the students are able to call out other nouns like *maneuver, muscle, symptom, syndrome,* and so on. We also discuss substitute nouns in case the one dictated is not the reference choice: *phenomenon* as a substitute for *sign* or *test*, for instance. Again a student writes all the material to be found in a medical dictionary and the special tables on the board for the class to see. Or if all of your students have a dictionary in class, then you can go through each individual area of the reference with them at this time. One does not simply throw open the book and hope to find the target word. The front matter must **always** be learned first so one knows how to use the book.

Computer spellcheckers and dictionaries. The main emphasis here is warning them not to rely on the computer spellchecker and to use a dictionary as the final authority when the meaning is unknown. I try to encourage the students to be inquisitive and go beyond just spelling something correctly.

Drug books. As mentioned before, the students have already completed a unit on the *PDR,* so they are thrilled to learn that this is not going to be their sole choice for finding the spelling and

capitalization of drugs. I point out its important place in the reference library, but then point out other, better references for their purposes. This is sort of the "flavor of the day" and I don't know why I don't save it for the end! I never hesitate to point out why a reference is "good," "bad," or "my favorite," and this is an excellent place to do that. (Even if you have to get some old copies of references for your demonstration, this will work.)

Spellers and word books. The three types of spellers presented are strict alphabetic, those with a body system or medical specialty format, and books devoted to a single specialty. Again, the student is advised to study the front matter before plunging in to find a word. I choose the laboratory reference book as an example and ask for any suggestions they may have for finding the range of normal for hematocrit in a woman. It is important to point out how much easier it is to find a word in one of these references in contrast to a dictionary: they have far fewer words to search through. This is particularly important when they are unsure what they are looking for. Contrast plowing through an entire letter of the alphabet in a dictionary looking for a dermatology word, for instance, to researching only a few pages of words in a section devoted just to dermatology terms.

Miscellaneous. The next set of so-called miscellaneous books includes showing and briefly discussing the following: a pictorial or atlas-type book, abbreviations, eponyms, style guides, difficult-to-find words or expressions (Vera Pyle's book, of course), homonyms, the local membership roster for the medical society, Yellow Pages of the phone directory, their own text, the text they had for medical terminology (they often forget what a good source this is), etc. I keep catalogs from all the book distributors and companies with reference materials for medical transcription in a loose-leaf notebook. This is an impressive display of broad selections.

And finally . . . The reference book they are making for themselves. This is one of the best opportunities for you to review the merits of keeping their own reference and give advice on making entries.

After they have seen the book display, we get down to the approach for using the books. I have the following material in a handout and go over each point with them.

Using Reference Books

- Make an attempt to spell the target word. Write it out (use the sound table if necessary).
- Write down the words or phrases that accompany the word.
- Try to have a sense of the word, abbreviation, or phrase that you are looking for. Determine the "type" of word that you are working with: Is it a verb? Is it a noun? Do you need the plural form? Do you know the medical specialty or body system involved?
- Select a reference. Read the introduction so you can see how the book is set up, if this is your first opportunity to use this reference. If you have forgotten exactly how it is set up, learn about the main entries and subentries.
- Remember that there are many tables in books listing muscles, bones, arteries, abbreviations, units of measurement, and so on.
- Go to the section you have chosen and begin your search.

- Verify your selection with a dictionary when appropriate.
- Record the word accurately in your own reference book.
- Return the book carefully to its proper storage place.

Encourage students to learn more about the books they already own before rushing out to buy a new reference. As mentioned earlier, they often stuff their old medical terminology text in a drawer somewhere and forget how valuable it can be. They need to pick it up and look at it differently now. Their own textbook often has appendices with laboratory terms, abbreviations, signs and symbols, and units of measurement listed. Now is the time to find out or review this.

This is usually the time that students start asking questions about purchasing reference books. A local transcription symposium during the semester can provide exposure to good references. Next, I keep the name, address, and telephone number of the local technical bookstore and suggest that several students visit together at the end of the semester. Since we are lucky to have a good reference library in the transcription lab, the students have the opportunity to review the books and use them on a regular basis. I advise them to wait until the end of the semester before making choices and to try out several in one category rather than use one exclusively.

I have obtained many of my references by asking working transcriptionists for their old copies when they purchase new editions; I make the same request of vendors and often get books at half price. If publishers were on their toes, they would send us free copies for our libraries because this is where the "sale" is often made!

Finally, I supply the students with the telephone number of the reference library for our county medical society. The librarian will take three requests for spelling or research at one time. I advise them that this is available when they are working and "stuck" on a word. When they obtain the word from the librarian, they are to ask where and how it was located so they can learn from the experience. I discovered in my early years that the librarian had simply gone to the journal of the medical specialty of the dictator for whom I was transcribing. She guessed that the person whose name I could not spell had probably written an article for that journal. She was correct. I had that journal available to me and did not think to research there.

Exercise for Developing Skills Using Reference Books

Directions: You will be given a target word or expression, sometimes within a phrase. It is underlined and spelled correctly. You need to imagine that you are hearing that word and your skills are needed now to report which reference book you would select if you needed to find that word to verify spelling, capitalization, punctuation, or meaning. You will be given a place to write in your first choice of a reference book. (Use the letter that identifies that book from the list that follows.) You may make more than one selection and also add any comments you feel are necessary. This is not a test; there may be several ways or methods to your research. Let's explore them now.

1. Select the reference book you would choose to find your target word. use the letter in front of the reference book to identify your selection (book).

2. Indicate WHERE in the book you would search (section).

3. Indicate any second and third choices of references if you were unable to find your word in the first selection or if you think you could have just as easily found it in one or two other references. The first choice may not be the best choice; don't try to determine that. This is not a test; there are no scores.

Student: If you have these book types available, you may wish to write in the name of the book or books after the type of book listed. This will reinforce your understanding of how and when to use these books.

A. Comprehensive drug book
B. A drug speller
C. An abbreviation book
D. A medical speller with words listed by body systems or medical specialties
E. A medical dictionary
F. A standard dictionary.
G. A word speller
H. A comprehensive medical speller
I. A book of eponyms
J. A medical phrase book
K. A book of surgical words
L. Style guide
M. A book for specific medical specialty
N. An atlas
O. Class textbook
P. My own reference book
Q. Other _____

Example: After the diagnosis of endometriosis was made, a hysterectomy was scheduled.

Book D Section Ob/Gyn
Book E Section the letter "e"
Book H Section the letter "e"
Book P

Comments: I would probably have used my medical terminology text from last semester and looked in the section from the female reproductive system if I had been at home.

Samples You Can Use

1. The chest was clear to percussion and auscultation.
   Book ____ Section____ Book ____ Section____
   Book ____ Section____ Book ____ Section____

Comments: _____
_____

2. The patient just relocated here from Sri Lanka where she had lived for the past five years.
   Book ____ Section____ Book ____ Section____
   Book ____ Section____ Book ____ Section____
   Comments: _____
   _____

3. He had previously been treated for the eczema by his local dermatologist.
   Book ____ Section____ Book ____ Section____
   Book ____ Section____ Book ____ Section____
   Comments: _____
   _____

4. A Bunnell hand drill was then utilized.
   Book ____ Section____ Book ____ Section____
   Book ____ Section____ Book ____ Section____
   Comments: _____
   _____

5. (You cannot understand if the dictator said 15 mg or 50 mg of a medication.)
   Book ____ Section____ Book ____ Section____
   Book ____ Section____ Book ____ Section____
   Comments: _____
   _____

6. The dorsalis pedis pulses were intact.
   Book ____ Section____ Book ____ Section____
   Book ____ Section____ Book ____ Section____
   Comments: _____
   _____

7. There were shotty cervical lymph nodes.
   Book ____ Section____ Book ____ Section____
   Book ____ Section____ Book ____ Section____
   Comments: _____
   _____

8. There is some facial paresis noted.
   Book ____ Section____ Book ____ Section____
   Book ____ Section____ Book ____ Section____
   Comments: _____
   _____

9. A careful exam revealed some damage to the fundus oculi.
   Book ____ Section____ Book ____ Section____
   Book ____ Section____ Book ____ Section____
   Comments: _____
   _____

10. The patient had been taking Imitrex for recurrent migraine headaches.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

11. When the baby was born there was left tibial torsion and pes equinus.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

12. The pH was 7.0.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

13. Diagnosis: Coccidioides immitis.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

14. Examination of the ears: TMs intact.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

15. There was a normally placed hyoid bone.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

16. Ten days after circumcision, there was some swelling noted in the glans penis.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

17. Genitourinary: There is no CVA tenderness.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

18. The fascia was closed with a cutaneous layer of #1 chromic suture.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

19. There were severe, deep, atrophic keloid scars of the face.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

20. Using cinefluorography, study of the palatopharyngeal regions was carried out.
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

    Second target word:
    Book ____ Section____ Book ____ Section____
    Book ____ Section____ Book ____ Section____
    Comments: _____
    _____

Go over the answers with the class, with students calling out a variety of selections. Ask for the reasons for the choice. If you keep getting the same book or the medical dictionary as an answer, ask if anyone can think of a faster or easier way to find the word. Some of the students

have the words already in their notebooks or in their fund of knowledge; invite them to explain how they learned this.

Point out that being able to *see* the word has been a distinct advantage in this exercise. They need to imagine they have only *heard* the word. Now is the time for you to point out references they may have overlooked. They are quick to use an abbreviation reference when they are looking at an abbreviation, but they should also think of specialty lists and laboratory reference, style guides, and an appendix in their text. I deliberately use words that I know are in their textbook reference section to remind them that they could have found them there.

Word Demon Drills. Now you are ready for more realistic drills, and the students will no longer need the written prompts they just used. But before you leave the list of written prompts, give them an oral word within a sentence or with a hint. For example, you might suggest that they have had a transcript returned with the word *wheels* circled, indicating it is misspelled. They have no idea what is wrong with it nor where to look. Now suggest: Notice the *words in the phrase* as you have learned to do before—don't attempt to work on a *word* alone. The surrounding words complete the thought as follows: "The patient had rough, red *wheals* on the skin of her right arm." Student responses should include the regular dictionary where a homonym of *wheels* is listed as *wheals* with a meaning as well; a medical homonym list; and a book of terms by specialty where they will consult the list of dermatology terms.

Now the next time you begin your drill, the students will be prepared. Just ask them to pull out the list of the classroom reference books. You pronounce a word; then say the word with a sentence or give them a context. For instance, you could say, "Your are transcribing a chart note and the dictator says, 'The patient may require *extirpative* surgery.'"

After they learn the drill, I try to give five words a week. I generally select words that are troublesome, but I also ask someone who recently had trouble with a particular word to tell us the word and part of the sentence or context. The students are now saving up their demons for the drill.

Reference Book Skills and Drills

by Ellen Drake, CMT, AHDI-F

Objectives

Medical transcription program graduates are often weakest in research skills. This is an area that should not be neglected and cannot be over-emphasized. Students must

- Understand phonics and know which sounds are represented by which letters or combinations of letters. Most medical and English dictionaries have guidelines for pronunciation, but that's not enough. They need to know that every vowel can sound like almost every other vowel. Consonant sounds fall into groups, depending on the way the letters are formed in the mouth. For example, *b*, *d*, *p*, and *t* can be difficult to distinguish from one another as can *b* and *v* or *s* and *f*. *X* is pronounced like a *z* at the beginning of a word. How many letters or combinations of letters make a *k* sound? Which ones can make an *s* sound? Diehl's *Medical Transcription Techniques and Procedures* (Elsevier, Philadelphia) has a Sound and Word Finder Table that is very comprehensive, and most dictionaries (medical and English) have guidelines for pronunciation.

  I like to use *ghoti* as an example of how different sounds can be rendered in English. *Ghoti* is pronounced "fish." How can this be? The *f* sound comes from the *gh* in the word enough. The *o* is pronounced as a short *i* as in women. The *ti* is pronounced as *sh*, as in *emotion*. Ghoti equals fish! Suggest that once students find a difficult-to-spell word, they analyze it and make a note of the term.

- Remember that many words contain silent letters (the final e on many words is usually silent) and may even begin with a silent letter. Examples include pneumonia, psychiatric, ptosis, psyllium, (silent *p*'s); gnathodynia (silent *g*); euphoria (silent *e*), phthisis ("tysis"); rhinorrhagia and rhonchi (silent *h*); and scybala (silent *c* ["SI-ba-la"]). Suggest students write these words in the margins of the dictionary or appropriate word and phrase book at the place it would be if it were spelled like they thought. Tell them to be sure to write it correctly spelled, however!

- Find lists of the most commonly misspelled English and medical words and memorize the spellings and definitions. Study lists of English and medical homophones (soundalikes) and know which to use when.

- A final spelling stumbling block is doubled letters. Examples are desiccate, parallel, diarrhea (double *r* and a silent *h*).

- Medical dictionaries rarely list every form of a word. Students need to understand spelling rules well enough to be able to correctly add plural, noun, adjective, and adverb, and sometimes verb, endings when only one form of a word can be found.

- For difficult-to-spell words, suggest students create mnemonics to help them remember the spelling. In parallel, for example, the two *l*'s remind me of parallel bars used in gymnastics.

If they can't think of a mnemonic (speaking of silent letters, the *m* is silent), typing the word correctly 10, 20, or 50 times will help them learn the correct spelling.

- Learn to recognize and keep a list of coined (made-up) words (nouns turned into verbs and adjectives or vice versa), slang terms, and brief forms. These words won't appear in dictionaries, although some of them may be in word and phrase books. Some coined words are acceptable if they follow the rules for forming words and there is no simple, ready substitute. For example, *coumadinize* has become a fairly standard term. Slang usually consists of unacceptable brief forms such as *lytes* (electrolytes), *dig* (digoxin or digitalis), and *tic* (diverticulum). These words are not acceptable because they are either obscure, can have multiple meanings, or the brief form has been pulled from the middle or end of a longer term.

- A final spelling stumbling block is doubled letters. Examples are desiccate, parallel, diarrhea (double *r* and a silent *h*).

- Medical dictionaries rarely list every form of a word. Students need to understand spelling rules well enough to be able to correctly add plural, noun, adjective, and adverb, and sometimes verb, endings when only one form of a word can be found.

- Learn to break sounds into syllables and words. Breaking the sound into syllables, writing the syllables phonetically, and analyzing by comparing to known word parts (prefixes, suffixes, and root words) can help. Students should know how these word parts are combined and what combining vowels are used, if any, to connect one part to another. There are no exact rules for putting two combining terms together, but often, in anatomy at least, combining forms are put together proximal to distal (glenohumeral), anterior to posterior (anteroposterior), or cephalad (top) to caudal (bottom) (esophagogastroduodenoscopy).

- Learn to identify nouns, adjectives, adverbs, and verbs by their suffixes and clues in the definition. For example, a definition that begins with an article (*a*, *an*, or *the*) will be a noun. If the definition begins with *to*, it will be a verb. If it begins with *pertaining to* or *relating to*, it will be an adjective.

- Identify the preferred spelling when more than one spelling is given. In an English dictionary, it will be the first spelling. In a medical dictionary, it's the one with the definition. So, if the definition says "See [another spelling], the *see* spelling is the one to use. If there is a complete definition with both spellings, then usually either spelling is acceptable.

- Recognize, based on context, whether the word is a drug, a surgical instrument, a laboratory test or x-ray procedure, etc. While all specialties can be touched upon in a single History and Physical Examination, students should learn to use contextual clues (including format headings) to determine which specialty word book to choose for symptoms and diseases.

- Learn to distinguish among trade (brand), generic, and chemical names of drugs, and also to distinguish between drug names and drug classes. Memorize the spellings of the 200 most-prescribed drugs and their indications. A list can be found in the appendices of the *Saunders Pharmaceutical Word Book* and on the Internet. This will save tons of time in research.

- Distinguish between Latin and English anatomical terms. English adjectives precede the noun, but in Latin the noun comes first. This is important because when looking up a phrase, the adjectives will be subentries below the noun. (Diehl's *Medical Transcription Techniques and Procedures* has a list of nouns that have extensive subentries.)

- Learn the synonyms for main entries. For example, a doctor might dictate a disease, but you cannot find the term under *disease* in the dictionary; try *syndrome*. *Test* and *sign* are often interchangeable as are *sign* and *reflex*. *Procedure* and *operation* may be interchanged. Tendons and ligaments may be named for the muscles to which they are attached. Learn Latin/English equivalents too: bone and os, muscle and musculi, nerve and nervi. Sometimes English and Latin are mixed, as in the abdominis muscle. *Abdominis* doesn't sound like an English word, so assume it is Latin and look under *muscul*i to find the correct spelling.

- Learn to evaluate reference books for quality and appropriateness by examining the contents. For example, are words extracted from a preexisting large database (unauthored books) or researched and compiled by experienced transcriptionists? The former types of books may not include as many cross-references and phrases as the latter. Some unauthored books are, however, reviewed by a team of practicing MTs, and these would be preferable to those with no MT input. Check the copyright date. This is important in references where the terminology changes rapidly, especially drug and surgery references. Who are the authors, editors, contributors, and what are their credentials? Is the publisher known for publishing quality references and does it have a special division for medical transcription? What are the organizational features of the book? Is it user-friendly?

- Become completely familiar with the front matter of every reference they use or acquire. Some MTs have used the *Saunders Pharmaceutical Word Book* for 10 years and still don't know that the authors' e-mail address and the URL for monthly updates are in the preface. Pay special attention to any instructions on how to use the book. Students should know the meanings of standard reference terms such as *see* and *see also*, *q.v.* (*which see*) and *cf.* (*compare*). They should check the table of contents, appendices, indexes, and other features of each reference book. These features, too, will help them evaluate whether the reference books they are using are good or not. (Unless you review this material with them and test them on it, they will not learn it.)

- Read the definition to make sure they have chosen the correct term; never just check the spelling and type or paste it into the document. There are way too many soundalikes in medical language. Students should never put a word into a report if they don't know the meaning. They should learn to identify and take the time to read the etymology (origin) of a word.

Often this will help them create a mnemonic for remembering the definition. A word of caution here: Many word and phrase books include both the nonpreferred and the preferred spelling of a term. Often the nonpreferred spelling comes first alphabetically. Students should never choose a word from a speller unless they are sure of the meaning and that they have the preferred spelling.

- Identify and translate abbreviations correctly based on context. If unsure of the translation of an abbreviation, they should leave a blank and put the abbreviation in parentheses.

- Learn the uses and limitations of the Internet. Know that there is no such thing as style on the Internet. Words are capitalized, hyphenated, closed, or open without regard to correctness. Misspellings are rampant. The Internet is lawless. It can be a remarkable research tool and resource, but it's not infallible. Books aren't either, but at least they've been edited and proofread in an attempt to make them as accurate as possible. It's a good idea, once a term has been found on the Internet, to try to find it in an appropriate reference.

Drilling Techniques

Drills using various kinds of words (such as general medical, drug, laboratory, or surgical terms) should be conducted in which students may need to determine which of several references to consult but may also be conducted using words found in a single reference. Words should never be called out in alphabetical order. It is important to drill regularly on words that contain silent letters either as the first letter (pneumonia) or within the word (diarrhea), doubled consonants (dyssynergia), unusual letter combinations (poikilocytosis), letters that sound other than expected (Xanax, euthyroid). Also use several-word expressions for which the student must identify the main entry (hallucis brevis); Latin and foreign expressions (déjà vu); eponyms (Marshall-Marchetti); soundalikes and near-soundalikes (perineal amd peroneal); and occasionally even coined words (paraspinal, coumadinize) that the students will not be able to find in a dictionary but may find in a word and phrase book.

There are some phrases, usually anatomical terms, which physicians often dictate as incomplete phrases, that students need to learn to identify. For example, *profunda femoris* is often dictated without the designation *artery*; *rectus abdominis*, or simply *abdominis*, is often dictated without the noun *musculus* or *muscle*. They need to learn to anticipate, using context clues, whether an expression is a muscle, artery, nerve, ligament, etc. Physicians sometimes combine Latin and English, so students need to learn to recognize Latin expressions and look for Latin adjectives under Latin nouns even if an English noun was dictated. Pronounce each word three times. Speak clearly. The student should be able to write the word down phonetically and look it up later. Use the word in a sentence (in the accompanying list, some phrases are suggested), or give a clue as to its meaning so the student will be able to tell whether or not the right word has been found.

To save class time or for online programs, the attached terms could be dictated and uploaded to the school's Web site as wav or MP3 files. Alternatively, a printed list using phonetic renderings could be used, but this will not be as effective since transcriptoinists must research words as they hear them and phonetic renderings are sometimes difficult to understand. Require

students to write the definition and etymology (this will help them remember the definition). Require that they learn to spell the more common words.

Vary Your Techniques

For an occasional break in the routine or to relieve near-burnout or test-anxiety, divide the class into teams. Have the students call out "got it" when they have found the dictated term. Raised hands do not work well; you may not be able to spot the first raised hand, but can almost always recognize a voice, even if two utter the same words nearly simultaneously. Give one point for each correct answer, subtracting a point for an incorrect answer and letting the opposing team attempt the correct answer.

Or distribute different references throughout the class (only two or three students should have the same reference). Call out the words and have the students indicate when they find the word. Wait until a number of students have found it. Then discuss where they found the word, the meaning, and which was the better reference to check and for what reason. Some students may find the wrong word; use this as an opportunity to discuss why the word is wrong and how they could avoid using the wrong word in their transcription.

Teaching Medical Terminology

by Ellen Drake, CMT

A major airline advertises, "We love to fly, and it shows!" Like that airline, a teacher who loves to teach will show it, and one who has a love for the subject will not be able to hide it. Nothing is more important to teaching than an enthusiasm for the subject. That enthusiasm will be contagious. This is especially important in vocabulary study because learning vocabulary is often associated with boring repetition and mind-numbing drill.

Every allied health program benefits from the study of medical terminology. Even more than anatomy, physiology, or disease processes, it is the cornerstone of a good medical transcription program.

Studying medical terminology can seem like just so much drudgery if approached with the usual rote memory and drill techniques. While these are significant parts of any language study, relevance to the student's life should not be ignored. Putting *new* knowledge in the context of *existing* knowledge is one way to make medical terminology study relevant. When students can see the relationship between what they are now learning and what they already know, the subject seems less daunting. Variety in both teaching techniques and class activities keeps the students' attention. Also, multiple approaches accommodate a variety of learning styles and reinforce what has already been learned.

Tips for the First Day

The goal for the first day should be to install an interest in and an enthusiasm for the study of medical terminology. In her article "Great Beginnings: What to Do on the First Day," Susan Turley gives some excellent advice for putting students at ease and introducing the subject. After a general introduction to the course, let the students introduce themselves. Ask that they share with the class something about themselves (reason for taking the class, their goals, details about their families), not just give their name.

The students have no doubt thumbed through their textbook already. They are probably thinking, "I'll never be able to do this." Encourage them. Tell them how successful previous students have been. Yes, the course may be difficult. It may require a lot of work. But tell them that your goal as teacher is to help them, to guide them through the learning process. If you believe the students can be successful, you can convey this confidence to them and they will believe it. How do you get beyond the initial fear and intimidation the students will almost certainly feel?

The Art, Music, and Poetry of Medical Language

Tell the students how fascinating the study of any language and especially medical terminology can be! Assure them that they will have fun in this class. Point out the marvelous richness of the language they are about to study. As you introduce a variety of interesting words, write the words on the board or, preferably, use an overhead projector. But tell the students not to take notes—just listen and look.

- Medical language is rich with color. Artists in the classroom will be interested in words like *cyanotic*, *xanthochromic*, *chlorophyll*, and *eosinophilia*.

- Poets and musicians will enjoy the onomatopoeia of words like *borborgymi, singultus, sibilant,* and *susurrus.*
- Other words just sound interesting, like *epididymis, esophagogastroduodenoscopy, intussusception,* and *hepatosplenomegaly*.
- Medical language is passionate. From *hematophilia* to *necrophilia*, *agoraphobia* to *xenophobia*, *dipsomania* to *trichotillomania*, we have a full spectrum of emotions. I give them a number of examples of *philia—Philadelphia*, the City of Brotherly Love; *Theophilus*, the lover of God to whom the gospels of Luke and Acts are addressed; and *philanthropist*.
- Medical words have *taste*. One of my favorites is cauliflower ears, but you can find many wonder examples in Dr. Dirckx's article, "Bon Appétit!" (*Perspectives*, Winter 1991-92).
- Some words sound exotic. *Scybalous*, *schizotrichia*, and *pygalgia*, for example. (They love *pygalgia*!)
- Anatomical terms from Latin and Greek evoke a picture, such as *glomerulus* (ball of twine) and *pterion* (little wing). For the latter, if you mention the *pterodactyl*, they will never forget it.
- Next, start pointing to a few body parts, like the *frenulum of the tongue*, the *uvula*, the *olecranon*, the *pinna*. Ask, "Do you know what these are?" Most don't, so tell them.
- Throw in a few action-type words like *mastication*, *micturition*, and *ambulation*. (No, I don't recommend illustrating micturition, although Susan Turley once told an audience of a teacher who gave a gastroenterology lecture seated on a commode she brought to class.)

Techniques for Learning

Since medical terminology is a language, it can be studied like any other language. Ask if there are any students who have either studied a foreign language or for whom English is their second language. There are usually several.

"What techniques did you use to learn this language? Which were most effective?" Responsiveness varies on the first day of class, although the students will have become more relaxed at this point. A few may volunteer things like "practice" and "use it in conversation." The answer that I like *best* is: "Go to the country where it is spoken. Live with a family who does not speak your language. Immerse yourself in the language you're studying. When you have to use it to survive, you'll learn."

Encourage them to use the language they learn in medical terminology every day. Sure, they'll get stares, weird looks, and laughter when others hear them. But they'll also get an opportunity to talk about what they are doing and why they're learning medical terminology. Medical transcription students get to promote our profession, which I always encourage. Assure them it will be great fun.

Also urge them to get their family members involved in what they're doing. Even a four-year-old child can hold up a flash card to help a parent practice vocabulary. That child will love helping, and the importance and love of learning will start to grow. Older children and spouses can be an even greater help.

One of my students with a two-year-old was having difficulty getting the child to understand that she could no longer devote all her time and attention to him; she needed some time to study. While studying the skeletal system, she got the idea of using water-soluble markers to label his body parts. For the GI system, she drew the organs and intestines on his chest and abdomen. He loved it! And his mother got to study.

A Recommended Motivational Tool

A tape by Earl Nightingale entitled "One Thing You Can't Hide" is an excellent motivational tool on the power of a good vocabulary. It so inspired one student that she decided that she would constantly encourage her three children (all below age eight at the time) to reach beyond the slang of street language to develop good vocabularies.

In this context, it is good to explain that there are many levels of language. These can be described as standard, formal, informal, slang, and substandard. Each level has its appropriate time and place, even substandard. But as the tape points out, success and power are closely related to the ability to use language that is appropriate and specific to the situation. And again, the way to develop that powerful vocabulary is to use it.

Tips for Using the Textbook

In our medical terminology classes, we use Davi-Ellen Chabner's *Language of Medicine* (W. B. Saunders, Philadelphia). I especially like this book because of the methodology. Emphasis is placed on word components—combining forms, prefixes, and suffixes. The meanings of words are extracted using a technique called "divide, analyze, define." Ample exercises reinforce this technique.

"Divide, analyze, and define" is our class slogan. Students are introduced first to the word components. Then, the components are illustrated with vocabulary words. The exercises lead the students to define the words by starting with the suffix and defining it, defining the combining form (the root plus the combining vowel), and then defining the prefix, if any. They are taught to "read" the definition from the end of the word back to the beginning. This technique could be adapted to any book using the "word component" methodology.

Audiotapes are available to accompany the *Language of Medicine* text, and your school may get a set or two and have the students use them in a "listening lab." There are some mispronunciations on the tapes, but several students have benefited from using them, especially for spelling study.

Another useful feature of this book is the pronunciation list at the end of each chapter which contains all the vocabulary words introduced in the chapter. Even if your textbook does not contain a pronunciation list, it should contain a vocabulary list, or you can use one that you make up.

- Pronounce the words for the students. Have them pronounce the words back to you. Before you start this, tell them what you are going to do and that you expect an enthusiastic response or you will keep repeating the words until you get it. Our students have always cooperated with this.
- As you pronounce the words, you may use certain ones as examples to reinforce the combining forms, suffixes, and prefixes that are being introduced. Point out the number of words (and definitions) that can be learned from learning just a few parts.
- Use this exercise to explain and reinforce how plurals are formed from the singular. Sometimes the text gives both forms, but when it does not, ask the students for the form not given.
- Draw their attention to any doubling of consonants, unusual vowel combinations, nonstandard plural forms, verb forms from nouns, and any words which are easily confused (even if the alternate word is not part of the list). By the latter, I mean homonyms or near-homonyms such as *peritoneal*, *perineal*, and *peroneal*.
- Suggest extra study for those words that are difficult to spell. Explain that correct pronunciation and an understanding of phonics are the key to good spelling. Emphasize the sounds as you

pronounce them. (You might also suggest a tried-and-true technique for learning spelling: typing or writing the word 10 to 100 times. Elementary but effective.)

I use the pronunciation review to reinforce, reinforce, reinforce—medical knowledge, word components, and spelling. I also introduce new words or related words and discuss diagnostic and therapeutic procedures. It is often the stimulus for much of my lecture.

Flash Cards—An Old But Effective Tool

Besides reading each chapter and doing the related exercises, I require students to make flash cards for each combining form, prefix, and suffix introduced for each chapter. Flash cards for the actual vocabulary words are voluntary. This sounds like elementary school, and grimaces and groans always greet this announcement. (I'm ready for this and immediately point out that I practice what I preach. I show them the flash cards I use for my Hebrew language study.)

Suggest they study their cards everywhere. For example, they can use them while waiting to pick up their children at daycare. They can study while standing in line in the grocery store or amusement parks in the area. (The Greater Orlando area, of course, is the amusement park capital of the world.) Tell them to keep the cards in the car to study while waiting at stop lights. And they can certainly study in the doctor's office.

Emphasize the importance of using every available moment. The successful person is the one best able to see a moment and seize it. Within a few weeks, the students are enthusiastic about what they thought was going to be drudgery. They're excited about some person who asked them what they are studying. They are delighted with their children's and spouse's responses. And, what is most important, they see how flash cards do help them learn. They're believers!

Tips for Class Activities

Class participation in our course counts as 25% of the student's grade. This has been one of the most successful things we've done. We divide the class into groups of three to five students (they may select their own or be assigned). Each group selects a chapter on which to prepare a class presentation. They must read ahead, of course, and give their presentations when we review that chapter.

Suggestions for presentations include skits based on movies like *The Incredible Journey*, TV shows like *Jeopardy*, or sitcoms and medical shows like *St. Elsewhere*, *Doogie Howser*, or *Rescue 911*. One group used "The Digestive Dating Game." Male students dressed up in drag, and it was hilarious and educational. The week before Halloween, the students dressed as vampires and witches for a section on the blood system.

If the students are not inclined to drama, a straightforward presentation with overheads, charts, and posters is fine, too. Some of our students have brought in their gallstones and videos of their laparoscopic cholecystectomy and arthroscopy. One student brought in an ambulatory peritoneal dialysis unit. The content of the presentations should be complete and informational, but the grade is based only on participation. Making the teacher laugh and entertaining the class never hurts, however. The students who prepare the presentations know "their" chapter extremely well, and the rest of the class remember much more than if the instructor stands up and drones on about something they can read in the text. The instructor should supplement with any important points in the chapter that the group omitted.

There are only two grades on this assignment—"A" for participation, "F" for not. Because of this, I have not had any student refuse to participate, and I have had no poor presentations.

Sample medical reports for each system give students a context for what they are learning. I still work as a transcriptionist, and I have my "routines" (usually operative reports) that I keep on disk for doctors who dictate similar reports each time. These are the ones I use for samples, but you could make up sample reports just as easily.

Underline the vocabulary words or words that contain combining forms, prefixes, and suffixes they are studying, and ask the student to "divide, analyze, and define" these words. They do not need to look them up in dictionaries. In class, go over their findings. Discuss how some word meanings do not always "equal their parts." During this time, also talk about additional words in the report that are new to them.

Dictionary skills should be included at least once in any terminology class of students not in the medical transcription program. Tips for locating words, the use of subheadings in medical dictionaries, alternative sounds (if it's not "f," maybe it's "ph" or "s"), how to find Latin expressions, and how to determine the etymology from a dictionary definition should be covered. Old-fashioned elementary school dictionary drills still work well for teaching these skills. Diehl and Fordney's *Medical Typing and Transcribing: Techniques and Procedures* (W. B. Saunders, Philadelphia) has a "Sound and Word Finder Table" in the appendix that is useful. Students should at least know the consonant sounds that can be confused.

Spelling bees again sound like grade school, but used on a limited basis are fun and effective.

Other Class Activities

As time allows, divide the students into groups based on their seating arrangement in class. Assign portions of the combining forms, prefixes, and suffixes (and vocabulary if you wish) to each group. The students then come up with mnemonic devices for remembering the terms. Share the devices printed in Linda Campbell's article, "Using Mnemonic Devices" (*Perspectives*, Fall 1991). Also suggest relating the term to one they already know (levator/elevator). Literature is a good source for mnemonics (I like to use Kafka's short story," The Metamorphosis," in which a boy metamorphosed into a roach), as are television, science (orb/orbit), geography (topo/topography), and math (all the planes and number prefixes). You might suggest poems, rap songs, and riddles. The students then share their results with the rest of the class. Again, this is one of the most effective learning tricks we've used.

One student used the tune to the "Twelve Days of Christmas" to make up a song about GU (genitourinary) function. Another used the sentence, "Blondie gave Bo Capps rent too rapidly placed under black ugly umbrella." This reminded them of the process of forming and expelling urine: "bloodstream, glomerulus, Bowman's capsule, renal tubule, renal pelvis, ureter, bladder, urethra, and urinary meatus."

The sentence, "Two kids cover mom's head under umbrella, but turning upside (down), she micturated (through her) meatus," stood for the GU anatomy: two kidneys, cortex, medulla, hilum, (two) ureters, urinary bladder, trigone, urethra, (and the process of) micturition through the meatus. One student thought of how lightning uses nitrogen to form in the atmosphere, and *azot/o* reminded her of being "zapped" by lightning. As you can see, the devices do not have to make sense—just be memorable.

Tips for Lightening the Load

About once a semester, usually around midterm, we play games. Another instructor and I made up a variation of the *Jeopardy* game. This is especially good if there are two sections of the class meeting simultaneously, as they can meet together and get some good competition going. The class can also be divided into teams.

Balderdash is another good game. In our version, the students make up their own combinations of combining forms, prefixes, and suffixes, and try to stump their classmates with the definitions.

Fun is had by all when we play our version of *Mr. Potato Head*. One-third of the students are given cards with prefixes, one-third suffixes, and one-third combining forms. The game begins when a "prefix" jumps up and calls out the prefix. Next a "combining form" jumps up, and finally a "suffix." We examine the "word" formed, discuss what it might mean, could it be a real word, and why or why not.

Wheel of Fortune or *Hangman* is good for just adding some levity and spelling practice. Students may create crossword and word-search puzzles for "extra credit." Few need it, but they like the reward anyway. I like the "Cross Search" word-search puzzles by Mary Ann and Elizabeth D'Onofrio in *Perspectives* because only the clues to the hidden words are given. This adds a challenge to the puzzle. This is the method I require if a student creates a word-search puzzle. These puzzles teach spelling and meaning and entertain as well.

Testing

Quizzes are given weekly to be sure the students keep up. With other classes competing for their study time, it is easy to put off working on the class that is not requiring constant feedback. I do not like the quizzes in the teacher's manual accompanying our textbook, so I make my own. Quizzes consist of a combination of the following types of questions.

- Matching (terms in column A with terms in column B) for combining forms, prefixes, suffixes, and vocabulary words. Column B contains more items than column A to prevent too much guessing.
- Fill-in-the-blank questions for terminology. The words that go in the blanks may or may not be listed. Again, include more answers than questions to prevent choosing answers by the process of elimination.
- Divide, analyze, and define. Vocabulary words are listed, and the student is asked to divide them into their component parts and define as demonstrated in their textbook.
- Multiple-choice questions are used to test medical knowledge and terminology.
- Spelling may be tested by dictating the words aloud. The student also may be asked to correct incorrect spellings or select the correct spelling from multiple choices.

I do not use each of the above techniques on every quiz, but only three or four at a time. Because we quiz weekly, we do not have a midterm, but I frequently include terms from previous chapters either as part of the main quiz or in a separate section as "extra credit." Students with an average of 94 or better do not have to take the final exam.

Our Medical Terminology Course

Our medical terminology class meets three hours a week for 15 weeks. We have both credit and noncredit vocational classes, but there is no difference in the way the course is taught. Frequently, credit and noncredit sections meet together. Our course concentrates on vocabulary, although the text covers much more. Both Anatomy and Physiology and Disease Processes are taught concurrently. Content between these three courses is coordinated, although students may elect to take the courses during different semesters.

Terminology is a required course for the medical transcriptionist, medical assistant, and physical therapy assistant students and soon will be required for the practical nursing students. Registered nursing students take it as an elective, as do quite a few people who are not in any of the allied health programs. We also promote the course to anyone working in the medical community. Students and their instructors report on the effectiveness of the course in preparing them for whichever program they enter.

It is a thrill to have students come back semester after semester and tell us how much they enjoyed the class and how beneficial it has been. I think the effectiveness of the course is due to the combination of an excellent textbook and qualified instructors. All three of our instructors are working medical transcriptionists, two have bachelor's degrees, and the third has an associate's degree and an ART (accredited record technician) credential. Each instructor is enthusiastic and uses anecdotes from her own experience to illustrate and expand on the material provided in the text.

So, are you "ready to fly"? Remember, a variety of teaching techniques and a good textbook will make your medical terminology course a course. Your enthusiasm for teaching and love for the subject will make it a pleasure for the student.

Using Storytelling to Teach and Learn Medical Terminology

Ellen Drake, CMT

"Daddy, read me a book." That familiar refrain from most toddlers probably echoes an older plea from toddlers since language was invented. "Tell me a story, Mommy." People of all ages and cultures, ancient and modern, seem to enjoy a good story. Until fairly modern times, history, including the histories of words, was passed on through storytelling. Storytellers were revered in their communities.

Just as we study our genealogies to learn about past generations, we can enrich our study of language by studying the etymology (or origin) of words. It is true that the meanings of some modern words bear little or no resemblance to the original meanings of their ancestors. This is in part because modern languages have evolved and borrowed from other languages, some of which are now extinct. Still, the study of etymology can pique our interest in the study of language, enrich our general knowledge not only of language but of ancient and modern cultures, and when relatively unchanged from the original, can help us remember and understand today's meanings and nuances of meaning.

It isn't only students who can benefit from the study of the origins of words. Practicing transcriptionists can benefit too. Exogenous and endogenous pressures to produce more lines faster have robbed many an MT of that which drew them to medical transcription—their love of words. Pausing to examine the origin of a word being researched in a dictionary can add moments of delight and wonder to an otherwise mundane day. If you would like to throw off the drudgery of meeting production quotas and turnaround times, reawaken your curiosity, delight in learning new words, and feel the pure joy of discovery for the language with which you work every day, dig into your dictionaries and study the etymologies of words.

Let me illustrate:

Imagine encountering the term *acne vulgaris* or *verruca vulgaris* for the first time. Vulgaris looks a lot like our English word *vulgar,* doesn't it? It brings to mind the meaning "crude, indecent," as in "a vulgar joke."

Vulgaris is a Latin adjective (from the noun *vulgus,* "the crowd, the masses") meaning "common, pertaining to the common people," or "ordinary, shared by all." This is the meaning that applies to the Latin Vulgate Bible of the 4th century, referring to the common speech of a people, the vernacular. The word *vulgar* itself is an example of pejoration, a linguistic term applied when the meaning of a word changes for the worse over time. The only Latin sense reminiscent of our modern word was in the idea of "general sharing," i.e. "sexually promiscuous."

Our word *vulgar* appeared in English in the late 14th century, still with the meaning it carried in Latin. Perhaps due to the lack of opportunity for education and refinement and the perceived ill manners of the common people, it began to take on connotations similar to those we associate with the word today. By the 17th century, it was found to mean "deficient in taste," making explicit what, over time, had become implicit in its meaning.

However, the medical terms *acne vulgaris* and *verruca vulgaris* still carry the original meaning of "common"—common acne, common warts. You can see how people might have a completely different concept of a medical term than the one intended if they fail to consider the origin and

evolution of a word's meaning. In this example, the danger is even more likely, considering cultural attitudes toward acne and warts!

Some dictionaries are better than others at illuminating the ancestry of a word. Older dictionaries and some current ones place the etymology in brackets following the pronunciation; many modern dictionaries place the etymology at the end of the definition, again in brackets. This latter practice, sadly, reflects the lack of emphasis lexicographers and dictionary users place on the rich, interesting, and often colorful histories of words. Some dictionaries give short shrift to etymologies, providing only the briefest lineage. Others give quite a bit of detail. Sometimes it is necessary to back up a few entries to find the origin of the word you're researching, and sometimes you may have to look up individual components of the word. Here are three dictionary entries illustrating how to locate the etymology.

From *Stedman's Medical Dictionary,* 26th edition:

> **es·cutch·eon** (es-küch'ün). The region of the skin in quadrupeds (usually cattle) between the hind legs above the udder and below the anus; the hair in this region generally grows upward. [through O.Fr., fr. L, *scutum,* shield]

(Note: escutcheon *does not appear in Stedman's 27th edition.)*

From *Dorland's Illustrated Medical Dictionary,* 29th edition:

> **es·cutch·eon** (es-kuch'@n) [L. *scutum* a shield] 1. a shield or something shaped like a shield. 2. the shieldlike pattern of distribution of the pubic hair.

From *The American Heritage Dictionary of the English Language,* 3rd edition:

> **es·cutch·eon** (ĭs-kŭch′ən), n. **1.** *Heraldry.* A shield or shield-shaped emblem bearing a coat of arms. **2.** An ornamental or protective plate, as for a keyhole. **3.** *Nautical.* The plate on the stern of a ship inscribed with the ship's name. —**idiom. a blot on [one's] escutcheon.** Dishonor to one's reputation. [Middle English *escochon,* from Anglo-Norman *escuchon,* from Vulgar Latin,**scūtiō, scūtiōn-,* from Latin *scutum,* shield . . .]

As an aside, it is interesting to note the differing definitions and pronunciations among the three examples. I won't belabor them, but these could suggest a teaching moment in the classroom. One could expect that a "vulgar" English dictionary would not necessarily include a medical meaning for this particular word, although it may include medical terms. It is possibly an oversight on the part of *Stedman's* editors to fail to include the definition that applies to humans in the 26th edition, or include the term at all in the 27th edition.

Escutcheon does not have as colorful a history as some of the words I will discuss below, but it works beautifully for comparing the different treatments given it by different dictionaries. Note that only *Dorland's* includes the etymology after the pronunciation. I might predict that, in its next edition, *Dorland's,* too, might move the etymology to the end of the definition. Sigh!

I do want to point out that knowing how *escutcheon* descended from a word meaning "shield" and visualizing the actual anatomy it represents can enhance the ability to remember the word's definition. As for remembering the spelling, you're on your own.

As you delve into the study of word origins, you will find that spelling schemes have also changed. For example, the Latins didn't like the Greek *k* and used a *c* instead. In addition to substitution, some letters were dropped, new ones added, and some letter pairs transposed as languages evolved. The field of linguistics has names and reasons for these changes, which can be interesting "rabbits" to chase for the curious but are not as important as the meanings.

When I introduced my medical terminology students to the term *etymology* during the third or fourth class, I'd always start by writing the word *sarcasm* on the board. I'd ask them what it meant to them. Most could not actually define it. At first, they would give examples of sarcastic remarks. With encouraging pressure from me, they would offer explanations such as "a mean or hurtful thing to say," "a pointed remark," "an insult," "a slam," "a slur," "a demeaning remark." Invariably, someone would throw in "humorous" or "funny." It was clear *they* had not been the victim (but perhaps the author?) of much sarcasm! Sometimes, the words "cutting" or "sharp" or even "biting" would be thrown out as well, leading beautifully into my explanation.

Sarcasm and *sarcastic* contain the combining form *sarc/o,* meaning flesh. The words descended from Latin via Greek. Various etymology references cite the original word as meaning "to bite the lip in rage" or "to cut the flesh, as with a knife," and later "to tear at the flesh like dogs." The latter image is so vivid, my students never forgot that sarc/o meant flesh, and many swore they'd never utter a sarcastic remark again!

So, how do we define sarcasm? It is "a cutting remark, intended to wound or to make the victim the butt of contempt or ridicule."

Following this introduction, I would show them a picture of an ancient Egyptian sarcophagus and write the term on the board. "Do you know what a sarcophagus is?" I inquired. One or two students had parents who forced them to watch the Discovery or History channel and knew that it was a coffin. They immediately grasped the use of *sarco-* as one of the combining forms but could not hazard a guess at what *-phagus* meant.

I explained that the Greeks entombed their dead in coffins made of limestone (literally, *lithos sarcophagus*). They believed the limestone hastened the decomposition of the body, or ate (*phag/o*) the flesh (*sarc/o*). This gory and unsettling image again etched indelibly on their brains the meanings of three terms used in medical language. After explaining that *lith/o* now simply meant "stone," I asked them to see how many medical terms they could find containing any of these three combining forms.

With one more illustration, I turned previously bored and disinterested students into word hounds. The next picture was that of a pterodactyl. What child did not have at least one story book about dinosaurs? At the time I was teaching, most had seen at least one of the Jurassic Park movies. I had them hook, line, and sinker. They couldn't wait to find out how this ungainly-looking creature would fit into the study of medical terminology.

"How would you describe this creature to someone who had never seen one before?" I asked. "Well, the head certainly is unusual but so are other features," I replied to their first observation. "The wings!" they practically shouted in unison. "Fingers!" they added. Indeed, I told them, this extinct flying reptile was named for its fingers (*dactyl/o*) on its large and unusual wings (*pter/o*). I noted in

Additional Terms for Etymology Study

1. Foxgloves and fingers [digit, digitalis]
2. Pardon forgetfulness [amnesty, amnesia]
3. Horns and hooves [cornea, cornu Ammonis, rhinoceros, rhinorrhea]
4. Elephant gems [pachyderm, pachydermatous, pachyonychia, onyx, onychia]
5. Hidden exotic flowers [orchids, cryptorchism (cryptorchidism)]
6. Standing in front [obstetrics]
7. Upright kids [orthopedics]
8. Mothers, saints, and beautiful women [dura mater, pia mater, matrix, belladonna]
9. An itch that's hard to scratch [prurient, pruritus, scabies, and urticaria]
10. Warts of all kinds [thymus, condylomata acuminata]
11. Spiders, webs, and bridges [arachnophobia, arachnoid membrane, pons]
12. Colors of the rainbow [eosinophilia, chlorophyll, cirrhosis, erythrocyte, xanthoma, cyanosis, corpus luteum]
13. Good and Evil [benign, malignant]
14. Pain and joy [agony, ecstasy]
15. Sitting and mending [sartorius muscle]
16. Doors and shields [thyroid, escutcheon]
17. Siphons and sugar for the sweet [glucose, diabetes mellitus, glycogen]
18. Knots and braids [plexus, meninges]
19. Outside juice [ecchymosis]
20. Beautiful strength [calisthenics]
21. The ladder to success? [Climara, climacteric]
22. Sweet dreams [Morpheus, morphine]
23. Edgar Bergen, Charlie McCartney, and heart chambers [ventriloquist, ventricle, ventral]
24. Vaults, arches, and cellars [fornix, fornication]
25. Evil spirits and roaches [larva, metamorphosis (Kafka)]
26. Cheerfully optimistic and bloodthirsty [sanguine, sanguineous, sanguinary]
27. Old age and madness [senility, presbycusis, dementia]

passing the silent *p* at the beginning of the name and told them they would encounter many more silent letters in medical terms. I also told them that *pter/o* is sometimes transformed into *ptery* in certain words.

One of the strongest aids to retention in any area of study is the relating of new material to learners' experiences and prior knowledge. The above illustrations show learners how to create links from the known to the unknown. For many if not most medical terms, familiar English words can be found with the same roots and origins. Learning such a study technique helps students in all their academic subjects.

In every chapter of the terminology book we used, I would point out the words with interesting etymologies. Sometimes, I would share some of them. I would assign others as homework or extra credit. I asked questions such as:

• The English translation of *ichthys* is *ichthus.* To what [reli-gious] symbol does this word refer? What is an ichthyolo-gist? How does *ichthyosis* relate to these two words?

• Explain how the meanings of *diagnosis* and *prognosis* have evolved "beyond the meaning of the sum of their parts." What is the etymology of the combining form these two words have in common. Can you think of some English words with this combining form?

• Explain how the word *hypochondriac* can pertain to both a region of the body and a person's condition.

• What are presbyopia and presbycusis? What nonmedical word(s) can you think of that come from the same origin? How do these nonmedical words relate to the meaning of the medical words.

Questions like these cause the students to look at a given term from many different angles. The repetition of having to look up several terms, nonmedical and medical, and analyze their similarities helps anchor meanings and forges links between the known and the unknown. They can easily be incorporated into learning activities that appeal to different learning styles and use "whole brain" learning techniques, rich in sensory, analytical, and conceptual content.

Teachers who later had my students in nursing, anatomy, and medical transcription frequently told me that mine had the best true understanding of medical terms, remembered more, and seemed better able to use medical vocabulary than other students who had been taught from the same text. I believe that was due to etymology study, as this was the only difference between my course and the medical terminology classes taught by other teachers.

I can just see my students in their old age telling their grandchildren that sarcasm "tears at the flesh like dogs." I believe this type of study brings words to life and engages learners in ways some other teaching and learning techniques do not. It teaches new learning skills, changes thinking styles, and contributes to critical thinking. It changes poor attitudes about language and about learning and contributes to a desire for lifelong learning. Isn't that the goal of education?

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Focusing on Words, John Robertson. **http://www.wordexplorations.com.** Thousands of advanced-level English words derived from Latin and Greek prefixes, roots, and suffixes, organized into thematic units or families, often include histories. Links are also available for Latin and Greek proverbs, legal terms, mottoes, phrases, and words. In addition, there are links to oxymora (aka oxymorons), word stories, pleonasms (redundancies). You can get a free subscription to the *Focusing on Words* newsletter.

The Word Detective, Evan Morris. **http://www.word-detective.com.** A site based on newspaper columns answering readers' questions about words and language.

A New Screening Tool: The Writing Sample

Georgia Green, CMT

A writing sample? Are you shaking your head in disbelief or just rolling your eyes? What could writing ability possibly have to do with the job of a medical transcriptionist? After all, the only thing you've seen your MTs compose is an occasional sticky note. But I've got news for you—good news:

WRITING ABILITY

correlates directly with

TRANSCRIPTION ABILITY!

Why is this good news? Because assessing writing skills is easy, quick, and cheap. It can be done in your office or remotely. And no special hardware or software is required.

Am I suggesting that you abandon actual transcription testing? Not at all. Evaluating an MT's performance on live dictation—dictators from your own account mix—is the central component of any pre-employment skill evaluation. But keep in mind that a transcription test is like a snapshot in time. It represents an MT's performance only on that particular sample of dictation—a very limited selection of dictating voices, styles, and vocabulary. It doesn't represent the MT's performance in a full day on the job, a full week, or a full year. We all know about MTs who ace a transcription test and bomb out on the first day. Or who seem to be doing fine until you really analyze their work and realize that work that "looked" good is actually garbage. Or who completely shut down when you assign them a new account and either can't produce or just walk out the door. Did they just get lucky on that test, encountering a familiar dictating voice and subject matter?

And conversely, if your transcription test is excruciatingly difficult—designed to trip up all but the most skilled—are you turning away otherwise capable, dependable MTs who just happened to encounter the one accent that would have required them a wee bit more exposure to master?

Enter the writing sample. It can reveal deficiencies in basic MT skills that are easily missed on even the most difficult transcribing test. It can reveal more about English skills than a grueling examination. But more importantly, a writing sample can predict an MT's job performance after that first day, that first week, and even a year or more into the future.

Let's look at these correlations between writing ability and transcription ability, and then I'll show you how easy it is to implement this tool.

Concept: Translation of random thoughts into coherent text.
Rationale: If an MT can't do this with her own thoughts, how will she handle a mumbling, wandering dictator?

Concept: Rendering grammatical sentences on the fly.
Rationale: Editing as one transcribes is fundamental to production transcription.

Concept: Natural spelling ability.
Rationale: If an MT's spelling is poor on his own native vocabulary, his transcription work quality will be poor—and he will likely be spellchecker dependent.

Concept: Adequacy of vocabulary.
Rationale: If an MT's vocabulary is sparse or she uses words incorrectly, she won't be able to second-guess a dictator (and doctors do display their college-level vocabularies from time to time).

Concept: Clear and succinct communication of ideas.
Rationale: A writing sample reveals the ability to communicate with you and your support staff. Communication problems underlie nearly every case of early termination.

Concept: Organizational skills.
Rationale: The ability to organize ideas is important to the construction of every medical report, but is particularly relevant when a dictator deviates from a standard format and also when one has to "change gears" when switching accounts. A disorganized MT can be slow to accommodate to change in the workplace.

Concept: Adaptability.
Rationale: When asked to do something new, different, or unexpected, will this employee play ball or will she expect special treatment (prima donna syndrome)?

Concept: Fulfills all assignment objectives within allotted time.
Rationale: Time management is a key component of production transcription and is especially important with remote MTs or in an unsupervised environment.

Concept: Follows directions.
Rationale: An MT who can't understand the directions of an essay assignment will have trouble during the orientation process and beyond. If he understands but refuses to follow the directions, you know you have a rogue employee who will do what he pleases on the job.

Concept: Tone and appropriateness.
Rationale: An essay that reveals an unprofessional tone or is inappropriate in any way reveals much about the MT's judgment. Will this MT display equally poor judgment when leaving a blank, editing a document, making a distinction that impacts medical content, interacting with coworkers, or handling scheduling conflicts and HR issues?

Concept: Insight.
Rationale: Does her essay demonstrate her understanding of this task? If so, she will be more likely to get the "big picture" and function as a team player. Poor insight on an essay may indicate a difficult employee.

Concept: Topic choice.
Rationale: In his choice of topic, this MT tells you what is important to him and what issues will impact his job satisfaction, performance, and longevity with your company.

Implementation Strategy

This is the easy part. You can add a writing sample to your pre-employment skills test package this afternoon! Here's what you need to do:

1. **Choose a half-dozen writing prompts**. A writing prompt is a statement that is a springboard for the writer to begin generating text. You can tailor some of the prompts to issues that are important to you, your management style, or your business model.

Example writing prompts:

- My working environment is important to me because ...
- The single greatest impediment to my achievement of maximum production is ...
- My best attributes as a medical transcriptionist include ...
- I prefer to work with supervisory staff who recognize that ...
- I like (or don't like) a flexible schedule because ...

2. **Prepare an instruction sheet that constitutes the testing instrument**. You will need to decide whether you want candidates to type or handwrite their submissions (there are pros and cons to each method—handwriting reveals a number of things that a typed submission does not, but a typed document is easier to read and can be handled remotely).

Sample instructions might include:

- Specifying a time limit (20-30 minutes for an in-house test;a remote test would need to take into account the available method of transition (fax, FTP, e-mail). I recommend a method that guarantees adherence to the time limit. E-mail can be an option depending upon the reliability of service.
- Setting the required length: No more than one page or 300 words, and no less than three-fourths of a page or 200 words.
- Indication of what factors will affect the evaluation of the writing sample (spelling, grammar, organization, expression, following directions, and so on).

3. **Determine how you will score the submission**.

- Use a grading rubric. This is a chart with a simple point system that allows for easy identification of strengths and weaknesses. See example below.
- Determine which staff members can score this instrument. Non-MT staff members with good writing skills can handle this task. (To determine which staff members have good writing skills, have them submit a writing sample!)

- Define an acceptable score. Ideally, you want to work with MTs who score in the high 90s (percentiles) on a writing sample. The nice thing about a grading rubric, as described previously, is that it highlights deficiencies or strengths in key areas that you may wish to take into account regardless of total score (for example, good writing skills but a poor attitude during the testing process may impact your hiring decision).

4. Consider how the writing sample will fit in with your current pre-employment skills testing package. To begin, you will want to add it to your existing package. As you develop a feel for what the writing sample can do, you might want to administer it as the first step of remote testing or even as a screening tool following resume submission before you go to the expense of administering a remote transcription test or personal interview.

Example of a Grading Rubric

TASK	1	2	3	4	5
Evidence of college-level vocabulary	Inadequate vocabulary	Stunted vocabulary and one or more terms used incorrectly	Limited vocabulary or one term used incorrectly	Unremarkable vocabulary; all terms used correctly	Excellent vocabulary; all terms used correctly
Adaptability when assigned a new task (i.e., writing sample)	Refuses to do task	Completes task in a slipshod manner, begrudgingly at best	Grumbles audibly throughout task; demands excessive explanation	Questions purpose of task but complies in full	Completes task with enthusiasm
Tone and appropriateness of writing sample	Uses inappropriate language or expresses ideas inconsistent with that expected of a job applicant	Expresses negative attitude, work ethic, or other indicators of a "difficult employee"	Neutral in all aspects, neither compelling nor negative	Demonstrates judgment through expression of professionalism	Demonstrates superior judgment through expression of professionalism *and* anticipation of employer's unique needs

Evaluation and Grading

Writing Exams

by Marcy Diehl, CMT, CMA-C

Exams, tests—it doesn't make any difference which five-letter choice you make; the students don't like the sound of it and it is difficult to produce good ones. My topic in this issue is general tips on writing exams/tests. Later on I will write more specifically on writing a final exam, giving a tape exam, and preparing Scantron exams. To get started:

- Pick your topic.
- Look at your lecture notes or textbook material and pick out the most important points.
- Decide what you want to reemphasize or keep in the students' memories.
- Select topics that students will need to build on for future studies or where they have already exhibited problems.
- Decide if you want to write a multiple-choice test, fill in, matching, or essay.

The type of data you want to test for will help you in making this last decision. If you want the students to *discuss material* and you want to examine their *writing skills*, then you would select an **essay-type exam**. Recalling important facts, checking spelling, and so on is best done with the presentation method: here are your choices.

Fill-in tests are probably the most difficult to write because it is hard for you to write your sentence in such a way as to produce the correct response from the student and not pick up something that fits the sentence but is all wrong in what you are trying to express. Sometimes it is helpful when writing these types of exams to give a list of possible responses to blanks in the question or statement to direct the student. Be sure that these lists are also filled with not-quite-correct choices to hide the right answers.

I have found that these difficult-to-construct exams provoke arguments during the review process, with students protesting that their answer is just as good as, or means the same as, the answer you designate as correct; and this could be true! I use this type of test when I want to elicit steps in a process and often throw in step one or the final step to get them thinking.

Example
Directions: Please fill in the blanks with the word or words to answer the question.

A. What are the five steps you will take at your workstation in preparing to transcribe?
   1. Obtain my transcriber from the storage cabinet.
   2.
   3.
   4.
   5.

B. What are the five steps you will take at your workstation in preparing to leave the classroom for the day?
   1.
   2.
   3.
   4.
   5. Make sure that my chair is pushed in, belongings gathered up, trash removed from the work area.

Pay particular attention to your **directions**; be explicit. If you want *complete sentences,* say so. The same is true of your request for *a word, words, questions you would ask, items to notice, things to avoid, directions you would give, items to be labeled* and so on.

Students should be told the value of each question answered correctly or *partially* correctly. (Of note, partial scores are the devil to work with.) Decide how much must be covered in the answer to make it acceptable. For instance if the "5" answer had not been given in question B, how much of that answer is required to make it acceptable? Some students will use that as three separate answers. Avoid asking questions they can answer in this manner. Students should know the total number of points that are available and what those points translate to for a grade.

Set the student up to be a winner by making the first couple of questions easy. They relax and think to themselves, "Hey, I know this stuff." Later, mix in the difficult with the less challenging. A few easy TRUE or FALSE questions work well here and give a sense of security. The best place for TRUE/FALSE material is in a fill-in test.

Always have someone read a new test you have written; a former student or one in an advanced class works best. This bails you out when something does not make sense or is not in the material you said you were going to cover. Leave room for simple error on the student's part. In the above fill-in examples, for instance, there could be more than five steps and any four they fill in will count.

Be prepared to back down on a test you give for the first time. If many students miss a question, be prepared to rethink it. When students object to the way a question is written, I direct them to redeem their score by writing the question the way they think it should be written. Admit it was a faulty question.

Students don't lose trust in you when you admit you are wrong. Don't let them think, however, they can challenge every other question. When I have given a test several times and know it is valid, I squelch all complaints. Discuss rationale for the correct answer and also reasons students may have selected the incorrect answer, "That's why I included it in this test. So often people make just that mistake and I don't want you to."

Writing **matching tests** is the most fun and the easiest. Be sure to give more possible answers than questions and avoid lengthy lists from which to select. For instance, in writing a 20-question multiple-choice test, break the test down into 4 sections of 5 questions each. Within each group have your five target words and about 8 possible answers. Some of these possible answers can easily occur in many of the sections. Again, be specific in your directions. For example, "Select the word or phrase from column B that means the same as, explains, or defines the word in column A. Write the number of that word or phrase in the blank in front of the target word in column A."

OR

"Select the word from column B that means the **exact opposite** or is used to convey an **opposite** meaning as the target word in column A. Write the number . . .".

The same advice holds true on multiple-choice tests. Give specific directions, hide your correct answer within answers that look good and sound good but DO NOT answer your question; make the first few easy. Throw in a "none of these" or "all of these" answer from time to time, even when they are not used as correct. This prevents them from eliminating other possible answers when you do use them. I put "none of these" on most of my matching and multiple-choice tests.

Vary your question style with a choice of one correct answer hidden in three or four wrong answers or one incorrect solution hidden in a list of correct answers. Be sure you cast your question to match your answers so that you do not give the answer away with a simple grammar error. Read your question through with each of your selected options to make sure they can all fit.

Example

1. Foot pedals are returned to the storage box *with the cord:*
   a. snugly wrapped around the pedal itself.
   b. loosely stuffed into the plastic storage bag.
   c. tied with a rubber band
   d. hanging loose.
   e. wrapped around the transcriber itself

Notice that all the answers fit with "with the cord."

Use **bold face**, FULL CAPS, <u>underlining,</u> "quotes," and *italics* to direct attention where it is needed.

Finally, I teach from my tests. For instance, if "Setting up to transcribe and leaving the work area" is so important to me, I prepare a handout for the first day we carry out this function and list all of those steps I am calling for. Therefore these steps were discussed, demonstrated, and written out for the students. It follows, does it not, that they should be able to recall these on an exam?

Midterm Examinations and Evaluations

by Marcy Diehl, CMT, CMA-A

In the last article, the subject of test writing was discussed. Now let's get specific: the midterm. Of course, what you choose to test for on your midterm will be determined by the material that you have covered up to this point. I try to cover certain basic foundation material, and if the assignments and discussion have not been thoroughly completed, I simply delay the midterm rather than rush into it or delete material. This is more sensitive to the needs of the students, and there is usually nothing that specifically requires instructors to give an exam within a certain time frame.

Now to prepare for the exam:

• Discuss the midterm for the first time at the first class meeting when examining the syllabus and establishing goals. At this time an approximate test date is given as well. The students are told what material will be covered on this exam and what the exam will "look like." Now you have a target goal which directs your attention and helps keep you on track.

• Write the midterm on the material you consider the most important. I look at all exams as an opportunity to re-teach. Watch to see what items need more emphasis or what material you need to convince students is important.

• Consider preparing your lecture notes (or text material that relates to test topics) with a highlight pen. This reminds you to be sure that the material is sufficiently covered.

• Prepare drills on areas where students are the weakest shortly before the midterm. Students are reminded that this material will be heavily covered on the midterm or that this material is where previous students have had the most trouble. These drills are in the form of homework. One day it goes home; the next class meeting they are given the answers and discussion takes place. How much time you spend on this is easily controlled. If you are short of time, the answers simply go home with the students to be compared to their own work.

• Prepare a practice test. This gives the students an opportunity to adjust to the style of the test and to see exactly the type of material you are going to be testing. I generally make the practice test exactly like the real test but the questions more difficult. This again gives you the opportunity to re-teach this material and it jolts the students into more intense preparation for the exam if they do poorly on the practice test.

I choose material directly from the textbook. This shows students that it is important to complete the textbook exercises. I also inject completely new material on the practice test, but I reassure them that material not yet taught will NOT be on the real examination. They are told that in the "real world" they will frequently encounter new material and they need to be prepared to take what they have learned and apply it to new situations.

The second reason for making the practice exam more difficult than the real exam is to help the students relax when they see the midterm. Since I use the Scantron format for the midterm, the practice midterm format simulates a Scantron format.

• Decide what style of test you want. I use the multiple-choice exam for the midterm. There are 100 questions and they vary from a choice of two possible answers (true-false) to a selection of 4 to 6 answers. I frequently employ the use of "none of these" and "all of these" as possible answers. (Remember to use test questions in preparing your teaching outline to make sure the material is covered.)

• Thoroughly discuss the mechanics of the exam before you distribute it. Let students know if it is timed and how you will call time or warn that time is nearly complete. Let students know how to handle questions they want to skip and come back to and how to handle an answer they want to change. (It is very important on a Scantron exam that students erase properly.) Reassure students that there are no "trick" questions and that they can question you during the test if they find something they don't understand. When the scene is set, distribute the tests.

• Return and thoroughly discuss the midterm after it is scored. This should be done at the next class meeting. There is no excuse for delay when using the Scantron method. Students need to know the range—the top score as well as the lowest score, followed up with the number of how many students earned which scores. (Note: I always use a fictitious "lowest score" so that no students go home feeling they had the worst score. It is not quite so shattering when you think someone else actually did worse.)

Be prepared to discuss why wrong answers are wrong and why they might have thought that a particular answer was appropriate. Do not permit students to engage in long discussions to prove their personal response was correct or acceptable. (Note: If this is the first time you have used a particular question or given this test, listen to discussions of test questions and let the students know you will consider their answer. Always be prepared to discover that you have made a mistake of your own on new tests. If possible, try out new tests on more advanced students or another instructor to avoid these pitfalls.)

• Assign a letter grade to the scores using whichever method you wish. Students like having a letter grade. Feel free to use the minus and plus grade at this time even though final scores must be full letter grades. It gives you a broader range and the students seem to appreciate it.

• Meet briefly with each student at midterm.Discuss projects with the students and their midterm scores and give them hints for improvement as they work on the second half of the semester. Students should not have to wait until the final exam to have an idea of how they are progressing in the class. Frequently I find that students downgrade their own abilities, and when you let them know how well they are doing, they actually perk up and do even better or produce more work. Even the best students need a pat on the back and, of course, those needing to work harder are the ones you really start to prod and warn about progress.

Midterm Medical Transcription Teacher-Student Conference

Dear Student:

After the midterm examination has been scored and recorded (usually in the eighth or ninth week of the semester), you will meet with your instructor for a progress conference. These are scheduled during regular class time and may last just a few minutes. However, if you wish to have your conference outside of class, just let the instructor make your appointment for a conference during office hours.

This is your opportunity to ask questions and to evaluate your progress. Goals for the second half of the semester are established and discussed.

Please bring your folder and any work that you wish to discuss to the conference. If your folder is in the IN basket, remove it and any work to be scored. After the conference, place your work back in the folder and return it to the IN basket.

Students are called to the conference area (chairs in front of the room) in alphabetical order. Be prepared when your name is called.

Another method I use for writing a midterm is to prepare a practice test with 110 questions. The students are given the opportunity to throw out ten questions of their choice. These are not Scantron-scored, of course, but the answers and the rationale for each are given on an answer sheet. The tests are exchanged in class and the students are given the answer sheets to score the tests, with instructions to ignore the ten deleted questions.

Why this format? It gives you an opportunity to try out test questions, to test on additional material, and to expose the students to more material. The students like this format of having some say in what they are being tested on, of having a little control. Yet they see that some material they chose to ignore was important. Finally, since tests are your chance to re-teach material, you have just that much more you can work with.

Finally, keep your sense of humor and throw in something to tickle their own silly bones somewhere in the test. Overseeing a room full of clenched jaws and a tight grip on pencils is pretty grim.

Final Examinations

by Marcy Diehl, CMT, CMA-A

Preparation for a final exam is nearly on a par with studying for one: fraught with tension, heavy with the desire to know what material will be presented and how it will be scored.

Since the midterm is a written exam, my final exam is a tape of dictation to be transcribed. When I first gave a tape exam to my classes, I gave it during the three-hour lab. I felt a two-hour timed test would fit nicely into this time frame. There would be plenty of time to hand out materials, make sure that tape, transcriber, printer, and computer were in working order and to check that everyone understood what was expected. When the test was complete, there was time for the mopping up and we were out of the lab in a timely fashion.

That was the only "timely" I had going for me. As I struggled home with 25-30 two-hour transcripts, I knew that the next two days were going to be miserable as I read through each of these exams, the same material over and over and over—taking care to be fresh and unbiased as I scored each one. I don't know when it finally occurred to me that just because I had the time to present a two-hour test, it did not mean that I had to utilize that entire time. so now I give a one-hour test. (Why didn't I think of that before?) The student can produce what you need to know in one hour just as completely as in two hours.

Next, I stopped giving a final exam to students who were already getting a solid A. Why should I have to pore over their test just as if it held the balance of a grade? These students are thrilled when they appear for the final exam only to be given a note saying that they already have an A in the course and are excused from the exam. The teacher is also excused from scoring the work! Since my school requires that all students take a final exam, I actually give these A students a tape about a week before the exam, telling them it is a special tape (not in the usual collection) and ask if they would like to try it. I always get a positive response and this becomes my secret final. These are scored just like any other lab work and well before the onslaught of papers during finals.

Now for the logistics for the one-hour tape final exam. Several weeks before test day, the students are told that they will be getting a tape exam. I have prepared practice tapes for those who have not had a timed tape test previously. (I set up a regular lab period to give this practice test and it is presented exactly like the final.) The students are somewhat relieved to know that there really is no way to prepare for the final: there are no chapters to review, word lists to go over, and so on. They may use their own reference books at their desks and this has encouraged them to be devoted to filling their personal book with words. They may use any of the lab reference books, although they may not take them back to their desks.

I have selected the material carefully so I have complete control over the range of difficulty, and each of the groups has a different level so the students are not exposed to new formats, for instance, at this time. There are extra copies of each tape just in case one turns out to be defective. Each student has an opportunity to listen to the introductory material on the tape before the test begins to make sure that it and all equipment are working correctly.

A cover sheet accompanies the tape. This tells what is on the tape, spells out the dictator's and patient's names, ID numbers and so on. Directions are given concerning format and hints, e.g., that a letter may be two pages in length. There are more documents dictated than can be transcribed in the hour so they can relax and know that they will not complete the entire tape.

At one time, I expected the students to allow time for printout during the hour test time. That caused some problems with shared printers, so now I have the printout after time is called and each group takes turns, in a casual manner, printing out the documents. They may not make any changes at this time and, again, they know this in advance.

Final Exam

Directions

1. Have your typing paper, letterhead paper, and your personal reference materials ready. (You may use any reference materials but do not take the lab materials to your typing station.)
2. The exercises are to be turned in at _____. You may make rough drafts but only polished copy is to be turned in for grading.
3. If you cannot "get" a word in the transcription, handle it just as you would in a regular work assignment.
4. If a letter is part of your transcription, be sure you use letterhead paper on the laser printer or use your letterhead macro. (Any letterhead macro is acceptable; names do not have to match the name of the dictator.)
5. Have your transcribing machine set up and obtain the proper tape from your instructor. Be sure that both your transcriber and computer are working properly.
6. Begin to type or make data input when your instructor gives the directions to do so. (This will be when everyone is ready.)
7. You may select any document(s) you wish to complete or delete for lack of time.
8. When time is called, everyone must stop work at that time. You and your table mates will take turns printing out your material. No changes can be made to your transcript at this time so prepare for this by proofreading your documents carefully before time is called. Turn in any complete or in-process transcripts.

Transcription

1. The first item document is a letter. It is lengthy and could run to two pages. The dictator is Dr. Charles W. Dotson. The patient is John B. Vogt. Please use full-block style and mixed punctuation. Don't forget to use a reference line.
2. The second document is a brief pathology report. Please use modified block style with no variations. The patient is Barbara Land and the dictating pathologist is Louise J. Gomez, M.D. The identifying number of the submitted specimen is T-2746-79.
3. The third item is a history and physical report. Please use the style of your choice (with the exception of run-on format) and mark the name of the style and any variations used in the upper left-hand corner of your page. The dictator is Dr. Lewis Wood. The patient is Joan Raven-Peters. Her hospital number is 527-40-01. The referring physician is Dr. Edward March.

Tape Exam: Medical Transcription

Name_____
Date_____
Instructor_____

Class:
Medical Transcription____
Medical Transcription Advanced____
Medical Transcription Enhancement____

Time began_____ Time called_____

Name or number of tape_____
Number of full lines completed on tape transcribed_____
Number of partial lines completed on tape transcribed_____
Number of documents complete_____
partially complete_____

Errors, if any:
___ address
___ capitalization
___ date
___ following directions

Format: problem_____
___ paragraphing
___ placement on page (appearance)
___ proofreading
___ punctuation: commas__ semicolons__ colons__ other__
___ sentence formation
___ spacing
___ spelling _____
___ style
___ typos
___ use of abbreviations
___ use of numbers
___ use of reference initials
___ wrong word used _____

___ Blanks left and properly flagged

___ Blanks left with no flags

___ Completed documents: P__ C&M__ M__

___ Partially completed documents: P__ C&M__ M__

Score for total exam_____

I let the class know when there are ten minutes left until the signal to stop is given. Finally, I have a cover sheet that I hand out to the students at the end of the test to complete some of the preliminary work for me. They count documents, lines, blanks, and so on for me so I have an overview of the test before I sit down with it. They fill in the top part to the line of asterisks and I use the bottom half to summarize the errors.

The next 48 hours are preplanned for my scoring time. I admit it is hard to compare high production carelessly done with scanty production containing few errors. I don't have any "teaching tidbit" to help you with this and would love hearing from anyone that does. After teaching transcription for 27 years, I have no cold theory to help me with this grading task.

I do have points for errors, with the highest loss of points attached to a made-up word and the fewest to blanks (three are allowed with no penalty) and punctuation errors. I take off points for faulty punctuation because if it is overlooked then you send a strong message that all those punctuation drills were pointless.

Abbreviations are permitted when used properly. Some style aberrations are not counted and others are, depending on what they may be. For instance, typing *14:20* instead of *1420* is a major penalty, as is typing *BP is 120 over 80*, but typing *3:00 p.m.* instead of *3 p.m.* is not. I try to differentiate between a typo and a spelling error, counting more for the latter.

"Made-up" words carry the highest penalty but words that are heard wrong do not. How do I tell the difference? Well, take the word "extirpative." That often turns up in a transcript as "extra patient." I count that as a minor error even though it makes no sense in context. If it is left as a blank, however, it is no error at all if a flag accompanies it. If *AIDS* is printed *Aids* or *Pap* as *pap*, it is counted as a single capitalization error. If a patient's or dictator's name is misspelled (remember they have a cover sheet with the correct spelling on it), I count this as a major error.

The students return two days later and have the opportunity to examine their scored test and ask questions concerning marking. They have the right to challenge marks, along with the knowledge that I might find some error I previously missed while doing this. They are not permitted to examine other people's work. Students who wish to sit down and see how this test fits in with the final grade they earned are welcome to do so. I retain the exams, of course.

Since this day is an open class, students come and go as they wish. Some of my class plan for this follow-up day to become a celebration day, with the students coming at a set time and then planning a party after all have a chance to view their exams. What a nice way to end the semester!

All of the Above: Writing Test Questions

by Susan M. Turley, CMT, MA

Test questions:

A. Are not easy to construct.
B. Can mean different things to the teacher and student.
C. May inaccurately test students' knowledge.
D. Can give away the answer.
E. All of the above.
(The correct answer is "E. All of the above.")

When I first began teaching, my immediate priorities were to quickly develop a course syllabus, select an appropriate textbook, and then research and write enough lecture material for each class. Sometimes in the week-to-week busyness of class preparation, I would have to construct a test. Often I found myself doing this hurriedly and late at night.

Some last-minute test preparation is certainly unavoidable for a new teacher or even for an experienced teacher developing and presenting a course for the first time. However, last-minute test preparation is not conducive to thoroughness and may inaccurately test students' knowledge. Fortunately, the second time a teacher teaches the same course, some test preparation has already been done and the teacher will have had experience in constructing test questions.

It is important to recognize some of the finer points of testing techniques. As in all areas of teaching, we grow in our ability to teach as well as evaluate our students' learning.

This article will address some of the issues and techniques involved in constructing accurate and fair test questions for courses in the medical transcription curriculum, such as anatomy/physiology, medical terminology, human diseases and surgical procedures, laboratory procedures, pharmacology, medical science, and professionalism and medicolegal issues. It is important to note that this material applies only to course material which can be accurately tested using paper-and-pencil tests. With the possible exception of a few quizzes, transcription course evaluation should always be in the form of dictation-transcription tests.

The writing of test questions is something of an art, the perfection of which depends on two factors: a knowledge of the mechanics/techniques of proper test construction, and the time to practice and refine those techniques.

1. Before writing a single test question, it is important to pause and consider the purpose of the test. The purpose of any test should be to see if students can meet the objectives stated at the beginning of the course, beginning of the chapter, etc. No course syllabus is complete without a comprehensive list of course objectives, and chapter objectives are included in many textbooks. Once these are presented to students, the test must be drawn from these same objectives in order to accurately reflect student learning.

Consider the following example in which some of the objectives from a medical terminology chapter on the cardiovascular system are not drawn from and do not correlate with the stated chapter objectives.

Chapter objectives for cardiovascular chapter:

a. List the main structures of the cardiovascular system and explain their functions.
b. Identify common diseases of the cardiovascular system, listing common symptoms for each, and pharmacologic therapy for each disease.
c. Identify the meaning of common cardiovascular system abbreviations.

Test questions for cardiovascular chapter:

a. Give a brief history of the discovery of the circulatory system.
b. Identify five common radiographic procedures used to diagnose cardiac or vascular conditions.
c. Define the meaning of the following cardiovascular surgical terms: embolectomy, endarterectomy, bypass grafting.

2. Consider the scope of the material to be tested and the length of the test time available. Common errors here include the use of too many questions for the time allowed, questions which focus on only one area of the material in too much detail, or a range of questions which do not adequately cover all aspects of the material. It may be helpful to keep an informal chart as a test is being prepared to assure that each subject area has roughly the same number of test questions.

3. Vary the types of questions used. There are several test question formats which can be used effectively to provide variety in the test by approaching test material in different ways. These formats include multiple choice, true-false, matching, fill in the blank, short answer, sequencing, selection, and case studies. Not every format is equally suited to each testing situation. However, the use of several formats is much preferred over the repetitious use of just one.

Multiple-choice questions. This format is widely used but results can be highly inaccurate if a question is not constructed properly. First, all of the alternative answers must be plausible and constructed in such a way that the sentence structure does not give a clue as to the correct answer.

Consider the following example in which the sentence structure is faulty, making it easy to determine the correct answer.

A rongeur is an
A. neurologic instrument.
B. cardiovascular instrument.
C. orthopedic instrument.
D. gastrointestinal instrument

The use of “an” in the stem of the test question clues the student that the correct answer must begin with a vowel. The questions could be rewritten in the following way.

A rongeur is
A. a neurologic instrument.
B. a cardiovascular instrument.

C. an orthopedic instrument.
D. a gastrointestinal instrument.

Because the multiple-choice format allows the student the opportunity to guess at the right answer, it is best to include five answer options rather than four to reduce the probability of a correct guess from 25% to 20%.

Consider the following multiple-choice example in which faulty sentence structure eliminates one of the answer options to give students an easier chance to pick the correct answer option.

Insulin is given to patients with type I diabetes mellitus to:
A. stimulate the pancreas.
B. Insulin replaces pancreatic production of lipase.
C. replace failing liver production.
D. stimulate the islets of Langerhans.
E. replace failing pancreatic production of insulin.

Answer option B does not fit the stem questions and can be automatically eliminated. The correct answer is E.

Some multiple-choice questions provide a strong clue as to the correct answer, as in the following example.

Which of the following instruments is used in dermatology?
A. Gigli saw
B. reflex hammer.
C. Doppler.
D. dermatome.

Because dermatology and dermatome have the same root word, it is likely the student would guess the correct answer even if unsure of the meaning of *dermato-*.

A final thought about multiple-choice questions: be sure to vary the position of the correct answer. Some teachers alphabetize the answers to achieve random order of the correct answers. When I began teaching, I had great difficulty putting the correct answer in the option A position because it seemed so obvious. In fact, if the majority of correct answers are in the option B and C positions (as they are statistically), then the option A position is really NOT obvious!

"Beginning test writers tend to shy away from the first alternative [A] being the correct answer. In fact, the third position [C] tends to be the correct answer a disproportionate number of times . . . The goal should be to have the correct answer appear in each position an equal number of times . . . The position of the correct answer should be selected on a random basis. No pattern of the correct answer position should appear in the test." (F. Coit Butler, *Instructional Systems Development for Vocational and Technical Training* [Englewood Cliffs, NJ: Educational Technology Publications, 1972,] p. 213.)

True-false questions. This format is also widely used, but is more restricted in the scope of information it can test. It is best to avoid questions which contain the words *always, never, none,* as this provides a clue that the question is probably false. True-false questions also provide an opportunity for students to guess at the correct answer with a 50% chance of being right. Therefore, this type of question should be used sparingly.

Matching questions. This format can test relationships and the ability to classify. Matching questions can be very useful in areas pertaining to pharmacology and laboratory tests, among others. Again, some precautions should be followed in the use of this type of question. Do not provide an exact match between the number of items in column I and column II. An uneven match which allows some items to be used more than once and others not to be used at all will make students evaluate each selection on its own merits rather than just matching it to whatever is left over at the end.

One twist on the matching question format that is not well known is that of the relationship matching question. The format looks like this. (Note: Answers are supplied in bold type.)

Column I	Column II (A:B)
1. A is caused by B	**3, 4** femur:bone
2. A is a source of B	**5** MI:elevated CPK-MB
3. A is made of B	**2** pancreas:insulin
4. A is a type of B	**1** stroke:blood clot
5. A is proven by B	**1, 5** syphilis:treponema

This format requires quite a bit of thinking on the part of the student. It is very important that the teacher review and explain this type of question and how to employ thinking strategies to answer it correctly *before* presenting it in a testing situation.

Correct answers may vary from student to student and several different answers may be correct. The teacher should be sure to evaluate all possibilities and give students credit if their answers are logical.

One final word about matching questions. Never continue the columns from the bottom of one page to another. Make sure that the entire matching question can be viewed at the same time.

Fill-in-the-blank questions. This format effectively measures the memorization of specific facts but cannot measure understanding or relationships well. In addition, if the question is not well constructed, students may have a difficult time trying to figure out what the correct answer should be. Notice in the examples below how difficult it is to ascertain what the teacher is looking for.

_____ is the study of the _____ and is abbreviated as _____.

_____ is the brand name of _____which is used to treat peptic and duodenal ulcers.

A common error with fill-in-the-blank questions occurs when the teacher indicates the blank space using a line, but makes the length of the line the same as the correct answer, as in the example below.

_____ refers to the surgical procedure to join (anastomose) the common bile duct to the jejunum.

____ is the abbreviation for tonsillectomy and adenoidectomy.

(Answers: choledochojejunostomy; T&A.)

Short-answer questions. This format is similar to that of fill-in-the-blank questions but differs in that there is no line drawn to indicate where the answer should be written, and how long the correct answer is. Example:

Persons with an allergy to penicillin may also show an allergy to what other category of antibiotics?

(Answer: cephalosporins.)

Sequencing questions. This format is particularly useful in testing anatomy, chemical reactions, etc., in which there is a well-defined sequence of events or structures, as in the example below.

Arrange the structures of the urinary tract system in the correct anatomic order to indicate the formation and finally the excretion of urine.

bladder	distal tubule	urethra glomerulus	renal artery
urinary meatus	Bowman's capsule	proximal tubule	ureter
loop of Henle	collecting tubule	renal pelvis	

(Answer: renal artery, glomerulus, Bowman's capsule, proximal tubule, loop of Henle, distal tubule, collecting tubule, renal pelvis, ureter, bladder, urethra, urinary meatus.)

Selection questions. In this format, students are asked to work within stated guidelines, selecting only those answers which correspond to a particular category, disease condition, etc., which the teacher has designated.

One question might ask students to circle all the symptoms which pertain only to congestive heart failure. The following is another example of the selection question format.

Circle those drugs used to treat arrhythmias.

Inderal	Cyclospasmol	Quinaglute
Atromid-S	Procan-SR	Lasix
Corgard	Lopressor	

(Answers: Inderal, Quinaglute, Procan-SR, Corgard.)

Case studies. This format presents the opportunity to test not only students' knowledge of the facts but also their understanding of relationships as well as their problem-solving abilities. Case studies should be used very sparingly because of the amount of time they consume within any given test. Students should be thoroughly familiar with this type of format, and multiple case studies should be presented in class to allow students to develop the skills needed to correctly answer the questions associated with a case study. This format is most suitable to advanced students with a working knowledge of the subject area.

A final thought on test construction. Just as there is no perfect student and no perfect teacher, there is also no perfect test question. A question that seems perfectly clear to the teacher may seem confusing to the student. Teachers should make every effort to word questions clearly, to avoid the use of double negatives (as in the example below), and to use only terminology that has been introduced and thoroughly explained in class.

It is never correct professional practice not to identify yourself by name when answering the telephone on the job.

True False

When tests have been corrected and handed back to the students for review and comments, the wise teacher will listen to the student who has a logical explanation for a "wrong" answer. It is not heresy to admit that there is more than one correct interpretation of the wording of a question. Even in the most advanced classes, this can occur, and the teacher should make allowances for alternative correct answers.

Create Your Own Test Bank

by Georgia Green, CMT

They say you cannot have too much money or too much chocolate. I say that if you are a teacher, you can't have too many test questions!

The anxiety level of your students in preparing to take their first test may actually be exceeded by your own anxiety in preparing the test. Writing high-quality test questions can be very challenging, and it doesn't always get easier over time. After you have a few semesters under your belt, you might be able to recycle some or all of your material—but just like a stand-up comic, you can't stay with the same shtick forever.

Every medical transcription teacher deals with this problem. But what if you could swap test questions with other teachers who were using the same learning materials? Not only would you have much more material to choose from when putting together a test, you completely eliminate the problem of former students passing on old tests to your current class. A couple of teachers sharing test questions could mean half as much work for either one. A dozen or more teachers contributing to a communal test bank would build a rich resource that will enhance the educational experience of many future medical transcriptionists. Let's get started.

Before You Begin

If you are just starting out in the classroom, you will need to generate your share of questions to contribute to a communal test bank. If you are a veteran teacher, you probably already have lots of material available from which to compile your contribution. In either case, it is important to review the basics of well-designed test questions so you can be proud of the material you share with other teachers and expect them to share their best work with you.

The most reliable tests are based on learning objectives established for the class and/or the textbook currently under study. For a communal test bank, it is easiest to organize material by textbook and chapter, so look to chapter learning objectives for guidance as you generate questions, or else be prepared to provide a copy of the learning objectives that you used in developing a particular set of questions.

If you are new to the classroom environment, you may not realize the importance of learning objectives. Learning objectives explain why you are there in the first place and what you are hoping to accomplish. They are the framework upon which you build all the content for your class. When it is time to assess the results of your efforts, you return to the learning objectives to determine if students are meeting them.

Learning objectives should be expressed in a way that allows the results to be measured accurately. This requires that they be stated in terms of what a student will be able to do at the end of the course or the chapter, in the form of observable behaviors. Objectives that express intangible concepts, like "be aware of," "know," "appreciate," or "understand" are difficult to measure with certainty and should be avoided. Consider this example: "Upon completion of this unit, the learner should understand the urinary system." How will you tell if a student "understands" the urinary system? And how will you compare one student's understanding with another's? Use specific language and action verbs to produce an objective that is concrete and measurable. Example: "Upon

completion of this unit, the learner should be able to name the organs of the urinary system, describing their locations and functions." Write or choose test questions that accurately assess a student's achievement of each objective.

Classroom assignments should also include activities that build higher order cognitive skills and not just require the regurgitation of facts. Testing instruments should contain a mix of questions that assess student abilities in all cognitive areas. Examine your course learning objectives and make sure they address multiple cognitive levels.

Lower Order Cognitive Functions

Knowledge and recall: The ability to remember bits of information, such as terminology, techniques, and specific grammar rules.

Comprehension: The ability to demonstrate understanding of a concept by summarizing or explaining it to someone else.

Higher Order Cognitive Functions

Application: The ability to apply what is learned to ar eal-life situation or scenario.

Analysis: The ability to dissect and reassemble concepts, explain how they fit together, and identify and resolve gaps in understanding.

Synthesis: The ability to reassemble concepts in a new way, using information from different sources.

Evaluation: The ability to apply a value judgment for the purpose of determining which method works best.

Writing Specific Types of Test Questions

There are a wide range of question types which can be used to create high-quality testing instruments; however, not every question type is suitable for assessing every skill nor is each type equally easy to construct or administer. The following is a quick-reference list of common question types with their advantages, disadvantages, and tips for use.

Not all types of evaluations lend themselves to a question- and-answer format in a test bank. For those that don't, you can share the relevant parts, such as the prompts used for oral exams or writing assignments. Be sure to share the grading rubric you developed to assess these instruments.

Multiple Choice

Advantages: Can test higher order learning principles; easy to vary the type of question (incomplete statements, choose the best answer, evaluate this statement, etc.); minimum writing for student; easy to grade by hand or machine; harder to guess than some types; can cover a great deal of material.

Disadvantages: Infallible multiple-choice questions can be difficult to construct.

Tips: Keep the "stem" (the actual question part) simple and free of extraneous words; avoid "all of the above" or "none of the above" as this makes a question easier to guess; make all answer choices plausible and keep them of equal weight; don't overlap; randomize your answer choices (alphabetize them if necessary); avoid double negatives (e.g., "It is NEVER correct NOT to . . . "); provide four alternatives if possible; phrase stems so they don't give away the answer (place articles like "a" and "an" with the answer choices, for example).

True/False

Advantages: Can test large amounts of content in a short period of time. Easy to grade by hand or by machine.

Disadvantages: They are easy to guess (50-50 chance whether or not you've studied the material); require a huge number of questions for high reliability.

Tips: Avoid double negatives; avoid long/complex sentences; avoid using terms like *all, none, never, always, might, could, sometimes, may, generally,* etc.; avoid testing the trivial; don't copy directly from the textbook—paraphrase; include more false choices than true (as most students assume "true").

Matching

Advantages: Assesses knowledge and comprehension depending upon how the question is constructed; variable types (match terms with definitions, cause and effect, problems with solutions, parts of a whole, and other relationships); tests lots of material in a single exercise; easy to grade by hand or machine.

Disadvantages: Doesn't test higher order learning; can be time consuming.

Tips: Don't use the same number of items in each list (re-use some items or don't use others) to keep students from guessing; keep everything plausible; keep it to 15 items or less if possible; give very clear instructions.

Fill in the Blank (sometimes called **Pattern Match**)

Advantages: Measures knowledge; easy to construct and grade by hand or machine.

Disadvantages: Doesn't assess higher order learning.

Tips: Use uniform line length so the length of the response cannot be guessed. Construct the question so there is only one correct answer per blank.

Short Answer

Advantages: Tests higher order functions; can be easy to construct; very difficult to guess.

Disadvantages: Can be difficult to score; may over-emphasize memorization of rote facts.

Tips: These are similar to fill-in-the-blanks, only phrased without a blank; phrase questions so there is only one correct response; use direct questions—avoid incomplete statements.

Sequencing

Advantages: Can test higher order functioning; adds variety; can be easy to grade by hand or machine.

Disadvantages: Only works with material where an order can be established.

Tips: Give clear instructions. See example in the article "All of the Above: Writing Test Questions," by Susan M. Turley where the structures of the urinary tract are to be arranged in the correct anatomic order to indicate the formation and excretion of urine. Another example is to dissect a dictated report into sentences and have students arrange them in logical order. See text sequencing software at **http://www.cict.co.uk/software/textoys/sequitur.htm**.

Selection

Advantages: Can test higher order functioning.

Disadvantages: Works best with certain types of material.

Tips: Give clear instructions. See example in Turley article where students are asked to select all drugs used to treat a particular condition from the list provided.

Cloze

Advantages: Tests higher order functioning and a variety of concepts; easy to construct and administer; based on actual transcribed reports so it is easy for students to see the relationship between the test material and the real world; can be modified for different purposes.

Disadvantages: Need to work with this type of test for a while to become comfortable with scoring them.

Case Study

Advantages: Tests higher order learning and a wide range of concepts; makes use of a variety of question types.

Disadvantages: Difficult to construct but can be easy to grade; can take a long time to complete.

Tips: Give clear instructions; try a sample case study in class so students understand what is expected of them.

Essay

Advantages: Tests higher order concepts; depending upon the prompt, can test a great variety of material; can construct to control the length of extent of response; impossible to guess the right answer; easy to construct.

Disadvantages: Takes more time to complete and to score; difficult to score reliably.

Tips: See "A New Screening Tool: The Writing Sample" (*Perspectives,* Winter 2001-02) for a detailed explanation and sample scoring rubric. If there is more than one essay question offered, score the same question for every student before moving to the next question; give very clear instructions on how you will be scoring the essay (including expectations for punctuation and grammar); provide a reasonable time limit.

Oral Exams

Advantages: Test higher order functions; student learns job-related skills in the testing situation itself; can test concepts that a written test would not elicit.

Disadvantages: Time-consuming to administer; difficult to assess; no written record; shy students may not perform well.

Tips: Use a scoring rubric; assign interviews with MTs in the community for oral exams as a way to facilitate students building a network.

Assembling Your Materials

You may wish to develop your test materials in a word processing program, in a spreadsheet program, or in a software program designed for this purpose. The latter offers many advantages: automatic formatting, randomizing, and exporting in various formats, including that suitable for uploading to a Web-based database for use by your own students, in the classroom or by distance education, as well as for sharing with other instructors.

An excellent collection of links to test-generating software is at **http://eleaston.com/quizzes.html#cr**.

Setting Up and Promoting Your Test Bank

There are test bank Web sites already on the Internet that you can begin using today, or you can create your own from scratch. One way to make a do-it-yourself test bank is to create a Web page and to post links for downloadable documents containing the questions you have developed and promote the page to other teachers in your community or nationally through HPI's Teachers Intranet and AAMT's committee for educators. For an example of a very simple Web site created by a teacher who collects and posts test questions for the benefit of other educators, visit **http://pages.prodigy.net/ daleharris/qlists.htm**.

You can secure your communal test bank Web site with a password or make use of a passworded bulletin board such as that offered through Yahoo at **http://groups.yahoo.com**. This allows you to maintain control over who has access to the communal test bank.

There are test bank Web sites where you can submit quizzes and tests to share with other MT teachers. Quia offers this at **http://www.quia.com/dir/med/**. Look under "medicine" to see medical terminology test materials developed for three different textbooks. You can add your questions here, or start your own Web site. Here are some more Internet test banks that are already set up:

http://www.hotpotatoes.net
http://www.funbrain.com

Outside Information Assignment

by Marcy Diehl, CMT, CMA-A

Students need to be encouraged to fly from the safe classroom nest to explore the world of work and meet workers and students from other facilities as soon as possible in their curriculum. The encouragement has to be rewarded or most of them will simply not try out their wings. The reward can be the form of points needed to earn high grades or can simply be a requirement of the class work. Each of us needs to be encouraged to obtain ideas from other sources and to meet others in our chosen field if we are to be considered professionals.

It is best to begin by making your goal clear—in other words let students know **why** you want them to explore the outside. Next, offer a **variety of choices** in which they may fulfill this assignment. In a huge community like San Diego (where there are many private, public, and government hospitals, research centers with Nobel laureates in attendance, and leading experts in every field of medicine), one does not have far to look far for exciting possibilities. In a smaller community, one would have to be more innovative. With two outstanding journals written just for our profession, ready-made reading material is abundant. Finding a physician to save discarded medical journals is not difficult and, in fact, you may be overwhelmed with the bounty of these to pour through for appropriate material. The local newspaper has many gems including articles about the latest AIDS drugs, working out of one's home, job-seeking skills, resumé writing, computer upgrades and gimmicks, ergonomic equipment, and so on. Lay magazines such as *Readers Digest* and *Ladies Home Journal* have surprisingly sophisticated articles. (Students who find appropriate articles for the collection are awarded extra points.) Journal, magazine, and newspaper articles are photocopied so the original will not be lost. Students who begin to explore these "continuing education" opportunities will, with luck, continue with them after they have graduated; this is your main goal. I encourage students to save their own articles they find and keep them filed in binders.

I invite my students to attend the local AAMT chapter meetings and warn them that I will ask them to break up sets if they try to sit together. When we all return to class those in attendance describe the people they sat with and where they are working, how long they have been transcribing, and so on. Occasionally they get around to saying "Oh, yes, and the speaker was interesting too"! The **people** are far more fascinating and remarkable. Many of them were where the student is at one time and acutely remember what it was like.

Our local chapter has welcomed students over the years with reduced fees for special occasions, mentors programs, book fairs, book auctions, and a full morning of round table discussions with local experts and instructors. The most impressive project the chapter sponsors is a tape library. A student may borrow professional tapes to practice with at no charge. A returnable deposit is made, the student may pick up and deliver the tapes at regular meetings. Students do not have to make a written report on attending a meeting of either AAMT or CMAA. They just turn in the regular CEU form that is made available to the membership. However, I do give extra credit if they prepare a critique of the speaker. Since our chapter has their symposium in the spring, we are alert to our neighbor's fall offerings. I asked one chapter about 100 miles away if they would make a special fee for students and they were happy to. They have no students

in their community and it had not occurred to them. Two carloads of students attended their full-day symposium,.

Some of the local hospitals hold wellness clinics with meetings nearly every night of the week and full-day presentations on weekends. Although these are specifically for the lay public, there are excellent relevant topics and most are free of charge. Over the past few months, the topics of menopause, impotence, infertility, AIDS care, aging, osteoporosis, stroke prevention, heart disease, cancer, plastic surgery, and prostatic hypertrophy have been presented. The lectures are given by excellent speakers and authorities. Brochures and handouts are in abundance. I did not find that the topics were "watered down" since the public has become more sophisticated in their understanding of some of these topics as well. In fact, I was impressed with the depth of the questions from the audience. I do ask that students obtain preauthorization for these, however, since there are some that would not qualify for points.

Written reports must be submitted on these presentations. Students completing their work experience in a hospital setting are asked to let the class know about any appropriate in-service classes at the hospital. There is no requirement that those in attendance be employed by the hospital and, in fact, this is often the source of good chapter meeting and symposium speakers.

Be sure to give exact guidelines concerning the written reports. I specify that they be typed, not more than six sentences of synopsis and not more than three sentences of evaluation. They must give specific bibliographical citations on reading material to include title and author, journal name, date, and number of pages in the article. Name and degree of speakers along with conference title and length are required for lectures. Occasionally an opportunity presents that has so much potential that students may be excused from class attendance. Once a year we have a Women's Opportunity Week fair with some of the best speakers in the country speaking on work and women's issues. If these interfere with classroom attendance, allowances are made.

Finally, don't ask for too much. I make ten points obligatory with extra credit for each additional point. Be firm on deadlines as well. You don't want to be evaluating reports and grading final exams at the same time.

"Yes, you can fly" and "there is life outside the classroom": this is the message you are sending.

Cloze Encounters of the Transcription Kind

by Georgia Green, CMT

A cloze activity, named for a shortening of the word "closure," is a test of reading comprehension that requires a student to supply words which have been systematically deleted from a text. The word choices that students make provide the teacher with an opportunity to evaluate their understanding of the meaning of the text.

Studies have shown high correlations between cloze scores and tests of reading comprehension, writing ability, listening ability, and speaking proficiency, suggesting that the cloze instrument is an excellent indicator of overall language proficiency. Cloze activities are used in a variety of settings, from assessing the readability of an instruction manual to replacing the essay requirement for university admission. Cloze activities are most often associated with foreign language learning where they are used to assess language fluency. If you are thinking that a cloze activity might be able to assess the medical transcription student's fluency in the language of medicine, you are right.

A cloze activity is particularly suited to MT training because it asks the student to supply missing words using only the clues gathered from the context of the passage. This is exactly what MT students do as they transcribe difficult dictation. Cloze activities are easy to put together, simple to grade, and interesting—sometimes even fun—for students to complete. Cloze activities should be a regular part of your lesson plans. In addition to being an ideal learning tool for a medical transcription program, cloze activities can also be developed for use in placement tests, both for education programs and for pre-employment testing.

Developing a Cloze Instrument

A traditional cloze instrument consists of a paragraph of approximately 250 words in length. The first and last sentence or two (no more than 50 words total) are left intact to provide students a framework for understanding the paragraph. Then with the remainder of the paragraph, every *nth* word is deleted (n=5, 7, or some other number). This is the *random* deletion method and most closely represents what an MT student encounters in dictation. An alternative to random deletion is *rational* deletion. This is where the teacher chooses which words are deleted. Rational deletion is useful for assessing or reinforcing specific grammar or vocabulary skills.

Scoring of a clozed instrument is expressed as a percentage of right answers divided by possible answers. An acceptable score for language fluency in a random deletion cloze instrument is typically about 65% to 70%. Keep in mind that with a random deletion cloze instrument, it is not usually possible to answer every item. Therefore, cloze activities based on random deletion are easiest to assess as skill-building exercises, allowing for a minimum acceptable score instead of applying an absolute grading scale. When used as placement tests, however, cloze instruments can be correlated against known testing instruments or administered first to individuals with a known skill set in order to develop an accurate grading scale.

Some items may have more than one plausible answer and you can decide whether or not to accept more than one answer. This may change the scoring range and require an adjustment if you use a grading scale. This is another area where you can draw a parallel with medical transcription in that there are so many acceptable alternatives and so many judgment calls. You can have students

grade their own cloze exercises or exchange papers with classmates. Ask students to identify items where more than one answer seems correct and encourage them to justify their choices. This will fuel interesting classroom discussions and develop problem-solving skills.

One way to modify a cloze activity, making it easier to score by machine or to administer on the Internet, is to convert it to a multiple choice format. You can craft your own multiple-choice responses or, if you teach multiple classes, you can administer a cloze activity first as a fill-in exercise for one class and then choose among the wrong answers as the distractors for a multiple-choice version you can administer to other classes.

The example below is a random deletion cloze activity built from a consultation report. While blanks should normally be uniform in size to discourage guessing based on the length of the word, you could experiment with blanks of corresponding size or even blanks that indicated the number of letters in the missing word, given that MTs usually do have a notion of the length of a missing word in an actual dictation. Not all of the missing words can be guessed from the context, but the

Example: Random Deletion Cloze Activity

The patient is a 68-year-old woman with hypertension, steroid-dependent asthma, chronic low back pain, and about a one-week history of malaise and anorexia. She had recently been ___[1] off chronic steroid therapy ___[2] bronchospasm and had noticed ___[3] 10- to 20-pound ___[4] loss in the last ___[5] or so. She apparently ___[6] 2 weeks ago and ___[7] worsening back pain. She ___[8] had urine and fecal ___[9], diarrhea, fever, and chills. ___[10] has no known allergies. ___[11] was admitted to the ___[12] where she was found ___[13] be hypotensive with a ___[14] pressure of 80/50 and ___[15] temperature of 102 degrees. ___[16] blood cultures were drawn ___[17] subsequent days; both grew ___[18] *coli.* Simultaneous urine cultures ___[19] negative. When her systolic ___[20] dropped to 60, she ___[21] transferred to the ICU. ___[22] was found to have ___[24] prerenal azotemia. She was ___[24] with ceftriaxone at 1 ___[25] q.12h. and received single ___[26] of erythromycin and Tobramycin. ___[27] has remained febrile at ___[28] degrees since that time. ___[29] days ago, she was ___[30] to have an increasing ___[31] pleural effusion. Thoracentesis yielded ___[32] fluid which had a ___[33] count of 29,500 with ___[34] polys, pH 7.0, and ___[35] This fluid also ___[36] *E. coli.* She was ___[37] on Wednesday, and a ___[38] tube was placed yielding ___[39] pus. She has put ___[40] almost 2 liters of ___[41] since that time. Yesterday, she was noted to be more lethargic. Two blood cultures drawn yesterday are negative at 24 hours.

Deleted words from exercise: [(1)] weaned, [(2)] for, [(3)] a, [(4)] weight, [(5)] month, [(6)] fell, [(7)] had, [(8)] also, [(9)] incontinence, [(10)] She, [(11)] She, [(12)] hospital, [(13)] to, [(14)] blood, [(15)] a, [(16)] Two, [(17)] on, [(18)] E., [(19)] were, [(20)] pressure, [(21)] was, [(22)] She, [(23)] severe, [(24)] treated, [(25)] g, [(26)] doses, [(27)] She, [(28)] 101, [(29)] Three, [(30)] noted, [(31)] right, [(32)] cloudy, [(33)] cell, [(34)] 84%, [(35)] glucose, [(36)] grew, [(37)] extubated, [(38)] chest, [(39)] frank, [(40)] out, [(41)] fluid.

average student should be able to supply roughly 65% of the missing terms, or about 27 of the 41 blanks. The deleted words appear at the end of this article.

If you prefer, change this random deletion cloze exercise to a rational deletion cloze exercise by choosing which words are deleted. You can also convert it to a multiple choice exercise by supplying several terms from among which to choose for each blank.

You can find lots of information about cloze activities on the Internet, including programs that will automatically create the activity by deleting random terms or allow you to specify which terms will be deleted. One such application, Rhubarb, not only creates the activity but publishes it as an interactive HTML file, which can be mounted on the Web or opened by students in an off-line browser. Rhubarb files are self-correcting and even supply hints to the student on request. You can find a demo of this inexpensive program at HPI's Web site at **http://www.hpisum.com.** Click on "Free Downloads."

Would I Hire Your Students?

by Judith Marshall, MA, CMT

The truth is, the medical transcription industry is in trouble. Aging medical transcriptionists swilling down Tranxene and milk are not being replaced fast enough by their own daughters, let alone anyone else. Men are not entering the field as I had hoped.

Some community colleges and vocational schools are teaching courses which are not preparing students for a career in medical transcription. Students are misled, victimized, and frustrated. Transcription businesses are coping with increased costs for technology, telephone lines, and better employee benefits.

The hospital schools are virtually dead. Ah, for the halcyon days of Waldron the Dragon with her hair in a bun and the ubiquitous red pen markings all over the neophyte's medical transcription.

The American Association for Medical Transcription encourages a two-year program for medical transcriptionists. At the same time, there is a pervasive societal attitude of wanting something for nothing. (Note the proliferation of lottery games, keno, casinos, riverboat gambling palaces, and bingo on every corner.)

People want to work at home as MTs and they want us to supply a computer, train them, and pay them while they are learning. They want to be paid as professionals but do not want to study or go to school as professionals must. On-the-job training is costly and sometimes ineffective.

Many people are unrealistic about medical transcription and its schedule. If we are serving our clients 24 hours a day, seven days a week, it is not reasonable to think some will work at home and never help the office staff cover weekends, evenings, and holidays.

Having said all of this, I am still optimistic about the future of medical transcription because of the teachers who labor in the herculean tasks of teaching this arcane, exasperating, mind-boggling, migraine-inducing, thrilling, cerebral subject.

Of course, I am a proponent and teacher of *The SUM Program for Medical Transcription Training*. But many people wish to take classroom courses (I use *The SUM Program* there, too) and they are in the world where other texts and methods are used.

For more than two years, I have worked in a human resources role for my company. For the eight years of having my own company, I did the hiring.

Would I hire your students? Maybe, maybe not.

Let me take you through the crucial phone call, resumé, cover letter, interview, and transcription test. Then I will tell you what attitudes, preconceptions, and skills I am seeking.

Tell your students to flee—yes, flee—from any social intercourse whatsoever with human resources departments of hospitals and aim instead for the health information manager or transcription manager or supervisor.

Tell your students that when they respond to a newspaper ad, do not make a phone call with a babe in arms or any small children in the same room, preferably not in the same house.

Tell your students to change those gosh-awful phone messages that have children babbling and making cute little beeping noises. I am not only unimpressed, I am truly annoyed.

Applicants should have a current resumé and know how to send a reasonable cover letter. I believe in a one-page resumé with a statement of career goal. I often will ask people to send these when I am unsure of whether to give them a shot at testing. More and more companies are requesting resumés to be faxed, as we have, since this is very efficient and cuts down on extraneous phone calls.

Past lives, former lives, children, husbands, lovers, pets, hobbies, political views, schedules of one-car families—I don't care. Criticism of former employers sets off alarms for me as well.

Women who are already working 20 hours someplace and maintaining a residence (which is all of us), married or not, children or not, already have two jobs. If they come to our company with the idea that they can fill in another 8, 10, or 12 hours, I tell them candidly that I do not want the crumbs of their lives.

This is a demanding profession, not something to be taken lightly, not something to do after the regular job and the duties and responsibilities of modern life. I want their full attention, I want them body and soul. I want a commitment of not less than 20 hours, or about 7,000 lines a pay period of two weeks.

It never fails to amaze me that instead of negotiating for better wages, women simply go out and get another job, creating patchwork quilts of time where nothing gets priority and everything is tugging at them.

Candidates should have a very good idea of their place in the profession and the nature of transcription as an element in the health information sector of patient care. I want a healthy interest in our company, how we got started, what our policies and goals are, do we encourage telecommuting and certification. Applicants should have an understanding of production pay versus hourly or salary. What equipment or phone lines do we provide, if any?

They should have a basic knowledge of what digital dictation is and what a standard cassette is or a microcassette. For the last class I taught at a local college, I took in three different types—VDI, Lanier, and Dictaphone—for show and tell. Students should understand the nature of these systems as opposed to analog tapes and how we can access and manipulate voice files. This is not new technology. No tapes, no printing, no paper—none of this is new in transcription.

They should know about AAMT and AHIMA, JCAHO, the difference between an RRA and ART, and a bit about the history of the business of medical transcription.

Please, no portfolios. Some correspondence schools make quite too much of this. Are we dress designers or graphic designers or architects? If so, then bring a portfolio. Otherwise I have no desire to see any reports. They could have been copied from a book, but more than that, they reflect nothing to me. Formatting is taken care of by computerization. I would hope they know how to set up a letter, though. I am more interested in seeing if they understand what a basic heading is in one of the Basic Four reports (history and physical, consultation, operative report, and discharge summary).

I live in hope that each candidate who arrives for an interview is not dressed for a hoe-down or cleaning the garage. In this age of casual dress, the dressing down of America, something is lost. I miss hats and gloves, but I will settle for something decent, and no pants for women. I always appreciate a thank-you note, too. There is a lot of class in that. Call me old-fashioned.

I know you are asking yourself, is any of this a teacher's responsibility to teach? They should have learned manners at home, proper dress at home, not as adults in a medical transcription class. This is very difficult, I know.

When I test applicants, I give them a tape, all the books they want, and tell them I am not timing them but I want at least four pages of solid typing, discharge summary and operative report. I tell them to name the file with their last name, put their name and the date on the first page. Only one of four listens to me. I say, if you don't understand something, leave a blank—not a question mark, underlining, parentheses, or asterisks—and only one of four listens to me.

I realize the testing is on a piece of equipment they are not using daily. Please—no whining or apologetic spasms. I hope and pray they know . . .

- Never guess at anything.
- Never trust a doctor's spelling. Any doctor, anywhere, ever.
- Never rely on spellchecker, ever, anywhere.
- Know our role as medical editor. Know what verbatim transcription is and why people who practice it should be forced to bathe in nuclear waste.
- A blank is an honorable thing, as Vera Pyle has taught us so well. It means we don't know.
- Know basic labs. Normal body temperature is 96 to 99.6. WBCs are increased at what, 11,000, 12,000? EKGs and enzymes are used to rule out myocardial infarctions.

On a recent student evaluation for my last course, I was criticized by a student for "teaching too much medicine and not enough transcription." I take that as a compliment. One of the test questions I gave was a case history of a 25-year-old woman of Italian descent who fainted in church and was brought to the emergency room on August 2. Upon arousing, she complained of right lower quadrant pain. What is her differential diagnosis? That might have included heat exhaustion, dehydration, appendicitis, low hemoglobin, pregnancy, or gastroenteritis.

I am seeking staff whose knowledge is integrated. If a patient eats raw shellfish, the threat of hepatitis exists and I expect to hear about elevated liver function tests. This is not complex medicine.

I care about informed and interested people, lively people. Are they reading? Are they using more than 200 words in their own vocabularies? My golden retrievers know more words than that. We have to spell in front of them and they learned that, too!

Does the applicant know that the PDR and the dictionary may not be the last resources to use? Do they know there are word books by specialty? Do they know how to recognize lab tests, to use an abbreviation book, the style guide from AAMT, my beloved "bug" books from Stedman's, and of course, the exotic, the weird, the succinct explanations in Current Medical Terminology by Vera Pyle?

The persons I hire must convince me I can trust them. I want them to be flexible, mature, intelligent, and confident. Do they know anything about how healthcare delivery impacts on all of our lives? Have they been patients? Do they know anything about the economics of Medicare and Medicaid? Do they know that there is no such thing as the big bad transcription company and the warm, loving, caring hospital? Each employer is a little of both. Do they truly understand the benefits of pay based on production versus salary?

The single most important overlooked requirement is the importance of fast, accurate typing. I have had lovely women interview and test who pass a written medical test with ease, but who cannot type more than 40 words per minute and do not know how to go home and practice because they have no computer and no transcriber and have no idea of what tapes to use. I tell them to come up to 80 or 90 + and then I will see them again.

Well, it seems like I want a lot. Yes, I do. We are about to invest a lot of money in an individual. The best in patient care is what we are about as well. Like marriage, it is not to be entered into lightly. I want that person who says, "After the first time I did this, I was so excited I couldn't sleep." "I love books." "I love words." "I can't believe people actually get paid to do this. This is fun." "This is great. What a challenge!"

If the keyboarding skills and medical knowledge are there, welcome on board.

The Paper Tiger

by Susan Turley, CMT, MA

Many consider paperwork to be the bane of mankind. "In Praise of Paperwork" was my first facetious title for this article, but there was little to praise about paperwork except that it sometimes helps us organize the world around us. After all, what would medical records and files be without all the paperwork that fills them?

"Although the computer age was billed as the 'paperless age', it didn't take any of us long to realize that, although the computer does eliminate some piles of paper, it also creates even larger piles. . . . One fact is absolutely clear: paper management skills are essential for survival in our society." This is the observation of Barbara Hemphill in *Taming the Paper Tiger: Organizing the Paper in Your Life* (Washington, D.C.: Hemphill & Associates, Inc., 1989).

Paper management skills are essential for both survival AND sanity when teaching medical transcription. Who best to appreciate the need to manage out-of-control paperwork than a medical transcription instructor buried under piles of reports to be corrected?

As utilitarian and useful as paperwork may be, no one (at least no one that I know) goes into spasms of ecstasy when confronted with a pile of reports to grade. We probably all feel more like Barbara Hemphill: "Digging through a pile of papers can be somewhat like waking a tiger who is temporarily asleep. We discover papers that represent disappointment, obligations, uncertainty, indecision, and the blinding reality that we are not able to do all the things we want to or think we ought to" (p. 4).

As medical transcription teachers, what are some of the things we "think we ought" to do?

We think we OUGHT to
- Correct every paper from every student.
- Return corrected papers within a day.
- Write meaningful, helpful comments on every report.
- Read every line of every report.
- Catch every error of every type in every report.
- Trust no one else with this "sacred responsibility."

When are we going to realize that "we are not able to do all the things we want to or think we ought to" (Hemphill, p. 4).

When we think about devising new ways to handle our paperwork load, we encounter the following stumbling blocks.

1. **The devilish dichotomy.** Although the stack of papers to be graded looks as unappealing as a sinkful of dirty dishes, still we must admit that correcting papers can be engrossing and maybe even stimulating (once we actually get started). The case histories are interesting (even when we've read them 100 times), and it is gratifying to see firsthand how a student progresses from week to week. Even when grading reports presents an unending stream of work and a tunnel with no light at the end, there is something noble about working all night to finish correcting that last report, isn't there?

2. **An accusing conscience.** As transcriptionists, we are used to persevering, to paying attention to detail and doing a 100% job even when we are tired. After all, we would do it for a stat tape; therefore shouldn't we do it for paperwork? Shouldn't we give our personal and undivided attention to every single report? We don't want to hear our conscience accusing us of slacking off, of not giving students a good education, of neglecting our duty as a teacher, of ... etc.

3. **Fear of "what if?"** We hear complaints about the grading workload from other teachers, but we're concerned about being the first to try a new system.

What if the department head or supervisor disapproves?
What if the students find it easier to cheat?
What if the students' skill levels decrease?
What if we can't keep complete enough records to determine a final grade?
What if the students complain?

4. **Inertia.** We've always graded a certain way, and even though we know it's not a perfect system, we are too comfortable (or even too tired) to change it.

Now that we know why we have struggled with this paperwork problem for so long, let's look at solutions that have been used successfully by other teachers.

1. **Document the amount of paperwork you are doing now** in order to (a) provide a baseline for comparison and (b) demonstrate to the "powers that be" that allotted grading time for transcription classes does not correlate with that for English or science courses. In The SUM Program, for example, there are 659 dictations. Multiply this by an average of 1-1/2 pages per report and then by an average of 20 students in a class, and the instructor is faced with 19,770 sheets of paper to grade. And that's assuming each student transcribes each report only once!

2. **Limit the number of students accepted into the course** or divide the course into several different sections (meeting at different times). One instructor mentioned she had 40 transcription students in a single course. This is far too many. Dividing the students into three groups that meet at different times does not decrease the total number of students but it does fill the instructor's schedule so that s/he is not assigned other courses to teach.

3. **Utilize peer grading techniques**. Peer grading is a nationally accepted alternative method of grading that has yet to enjoy the popularity it deserves in medical transcription. Some instructors have advanced students correct a portion of the work of beginning students. An instructor might also have all of the students in one beginning (or advanced) course work on the same report together and then exchange and grade each other's papers. This is done not only for the convenience of the teacher, but also as an important learning experience for students, to help them evaluate someone else's work which varies in style from their own.

4. **Set a maximum line count**. Some students enter a transcription course already possessing excellent typing skills. These students speed through the tapes assigned and want to do more. They

should be provided with more tapes to transcribe, but the teacher should not feel obligated to correct these extra reports or grade them. A maximum line count for the course (or for each section of the course) can be set to include essential transcription; all other transcription beyond that can be done on the student's initiative.

5. **Have students check their own work**. Many teachers fear that, if given access to the master transcripts, students will be tempted to cheat or shortcut on proofreading and word searching. One teacher who uses this method (with mature adult students) found no problem with cheating, and students openly thanked her for helping them find a way to get more immediate feedback on errors. Remember, it is not written in stone that the instructor must grade every transcript the students can produce. As in most technical writing, the time requirements for assessment prohibit evaluation of all tasks. Typically, only those tasks considered most critical and performed most often are used for performance evaluation.

6. As students check their own work, **they can also analyze their own transcription errors**. This is a meaningful learning experience that provides immediate feedback not only on the number of mistakes they are making but also on why they are being made.

Do you dare to break with tradition and change the way you grade? Do you dare to tame your paper tiger? Try some of the suggestions above and then, when you're no longer buried under paperwork, pick up the phone and call to tell us your grading success story!

Grading Guidelines

by Linda C. Campbell, CMT, FAAMT

Setting up a fair, workable grading system for a medical transcrip
tion course can be one of the most difficult projects an instructor can undertake. It is extremely important to have a grading system in mind even before the course begins. When a student or trainee first hands in a transcript to be evaluated or graded, it is too late to make changes in the grading system.

If a grading system is unclear, students become anxious, frustrated, and may challenge the grades they are assigned. A clear, detailed, well-documented grading system helps students understand what to expect and to accurately assess their standing in the course. Grading information should be clearly outlined and given to students in handouts at the beginning of the course.

A grading system consists of two parts: a grading policy (often stipulated in part by the school) and grading techniques (those special methods applicable to medical transcription alone which facilitate the grading process).

Grading Policies

Grading policies differ from school to school, but the majority rely on one of three standard procedures:

1. **Letter grades** (A, B, C, D, F). One variation of this is assigning a plus or minus sign to a letter grade, as merited by the student's performance. Another variation is used by schools who do not use D letter grades; any student earning less than a C does not pass the course.

2. **Percentage grades.** The exact cutoff assigned to each grade level varies from school to school. Some schools use 90% and above equals an A, 80% and above equals B, and so forth. Others award an A only for 93% and above. Letter and percentage grades represent the most accurate way to demonstrate a student's competency in medical transcription.

3. **Pass/fail or credit/no credit.** In this grading system, students who achieve competency are assigned a "pass" or "credit" designation. Students who do not meet minimum competency are assigned a "fail" or "no credit" designation. No final letter grade is assigned, and no other attributes of the student's performance are reported.

Guidelines

Unlike courses in which students are tested with multiple-choice questions or matching exercises, medical transcription courses offer a unique challenge for accurately evaluating the student's knowledge and skill levels. The following guidelines have been developed with input from successful medical transcription teachers representing a wide geographic area.

1. **Do not begin grading on day one.** Because many new and complex skills must be acquired and mastered to produce a perfect transcript, the wise instructor would do well not to demand precision from students in the first week or so of the course.

Students need time to learn the manual skills of coordinating typing with listening before they can turn their attention to perfecting word searching and proofreading skills. Keep in mind that beginners often show very uneven performance during the first two weeks of class. The student who earns an A for the course may have turned in failing transcripts early on.

There is no law that demands a grade for every report completed. An instructor may elect to count the three to five best reports turned in by each student during the first part of the course, or may decide not to assign any grade during that period. Recording none or only some of the best grades during this time helps take the pressure off the student who is learning a great deal in a short time.

2. **Do not grade rough drafts.** Early on, students will begin generating rough drafts until they are skilled and confident enough to produce a final copy on the first try. However, all students should be encouraged to thoroughly proofread and edit their reports, including drafts, before turning them in. The drafts can be marked for errors, returned to the student, and the same reports re-transcribed (*not* just retyped) into final copy.

Some instructors prefer that beginning students double-space on draft copies to facilitate corrections. However, after the first few weeks, all instructors should encourage students to aim for producing a final copy on the first try. Students who are still working through an initial rough draft of each report near the end of the course may not be able to meet production standards on the job, and thus should not receive an A for the course in spite of turning in perfect or near-perfect final reports.

3. **Allow students to analyze their errors.** Having students analyze their own transcription errors is an excellent way to provide them with immediate feedback. After transcribing a report to the best of their ability, students circle all errors and check their marked transcripts against the "Error Diagnostics" page (included in this Teacher's Manual). Students then hand in all self-corrected transcripts to the instructor so that the instructor can carry out spot-checks and monitor each student's progress.

For testing and grading purposes, the instructor assigns specific reports to which the students do not have transcript key access. This method works particularly well with large classes and with on-the-job training.

4. **Penalize transcription errors.** Transcription errors are assigned a specific point value based on the seriousness of the error. Most instructors penalize more heavily for wrong medical words than for less critical mistakes such as typographical, format, or punctuation errors that do not affect medical meaning. This is because incorrect medical terms, drugs, or tests jeopardize patient care and are unacceptable.

5. **Provide feedback.** Although correcting many reports imposes a great deal of paperwork on a medical transcription instructor, it is of the utmost importance that reports are graded and returned to students in a timely fashion. Prompt feedback is a critical element in learning a skill so that errors are not perpetuated in subsequent reports.

When dealing with a transcript that contains many errors, some instructors stop marking errors when the grade has obviously fallen below a C. Other instructors mark every error regardless of the number so that students can have the benefit of learning from each mistake.

Rather than just marking transcription errors, many instructors also write comments in the margins of a report. These may refer the student to a particular reference book or explain the unsound reasoning behind an error. Keep in mind, however, that too many red-ink comments on a report are discouraging to students.

When correcting reports, instructors may want to use standard proofreading symbols so that students become familiar with these widely accepted marks. A list of proofreading symbols is found in many English dictionaries and style manuals.

6. **Allow variations in style and format.** Instructors must recognize that variations in style, format, and editing do not necessarily represent errors. Years ago, when there were relatively few reference books for transcriptionists, instructors had little recourse but to consider a particular publication the ultimate authority. For example, an older edition of *Dorland's Illustrated Medical Dictionary* listed "G.I." with periods and "GU" without periods. Some instructors penalized students if they didn't follow *Dorland's* style exactly, even though the rationale for using periods was never clear.

In recent years, it has become widely accepted that many stylistic factors determine proper editing, punctuation, and grammar. Even respected references vary and may contradict one another. Being dogmatic in this area is not the correct approach for an instructor. Instructors should be familiar with what constitutes acceptable variations in style as opposed to true errors.

7. **Define quantity as well as quality standards.** The demand for quality must be coupled with the need for quantity, both in the classroom and on the job. Instructors often encounter students who neglect either quality or quantity.

Quality standards are assured through the use of a letter or percentage grade. While quality should always be uppermost in the mind of students (and this should be continually stressed), the instructor is doing a disservice to the student to downplay or ignore the role of quantity in the classroom and on the job.

It is common to have students who meticulously produce good or perfect reports but who never increase their transcribing, word-searching, or proofreading speed. One approach to counteract this is to establish minimum line counts for each section of the course. This might be a goal of fifty 72-character lines of transcribed and proofread material per hour for students early in the course, increasing to 80 lines per hour near the end of the course. Transcribing a minimum of 80 to 100 lines per hour at the end of a course prepares students to enter the job market as entry-level transcriptionists producing 600 to 800 lines per day—the minimum expected by many employers and institutions.

8. **Give timed transcription tests.** Timed transcription tests should be conducted for at least two hours to obtain the most accurate assessment of transcription speed. Students should be expected to transcribe, edit, and proofread during the allotted time to produce an error-free final copy. The instructor should plan to announce the time remaining throughout the test, particularly near the end of the allotted time. ("You have ten minutes left. Be sure to thoroughly proofread the material you have already transcribed.")

9. **Give a final examination based on course skills.** The final examination for a medical transcription course should always be dictation to be transcribed. Multiple choice or essay questions can help determine medical knowledge but cannot measure transcription skill.

10. **Determine a final grade or percentage.** The final grade or percentage for each student should include points from the transcripts produced throughout the course, timed transcription tests, and the final examination. Some instructors also include homework points in the total.

Calculating Transcription Errors

A simple diagnostic method of determining a percentage and grade is described below in step-by-step fashion. (See Error Diagnostics at the end of the article.)

Note: If a word is misused throughout the entire report, it clearly reflects one wrong piece of information by the student, and you should consider counting it as only one error.

Step 1. Mark the errors for dictation #1.

Step 2. Assign each error an error category and determine the point value of the error. Suggested point values are given below.

Error Categories	**Point Value**
Medical Errors	
Omitted medical word	1.00 pt.
Wrong medical word	1.00 pt.
Misspelled medical word	0.75 pt.
Typographical medical error	0.75 pt.
English Errors	
Omitted major English word	0.75 pt
Omitted minor English word	0.25 pt.
Wrong English word	0.50 pt.
Misspelled English word	0.50 pt.
Typographical English error	0.50 pt.
Grammar error	0.50 pt.
Punctuation error, major (changes medical meaning)	0.50 pt
Punctuation error, minor	0.25 pt.
Capitalization error	0.25 pt.

Step 3. Add the total point values of all errors for dictation #1.

Step 4. Repeat steps 1, 2, and 3 for each of the dictations in the exam.

Step 5. Add the error point values from each dictation to arrive at an error point total for the entire exam.

Example:
Student Jane Doe transcribes an examination that contains seven reports. The results of her test:

On dictation #1, Jane Doe made the following errors:
One capitalization error for a value of 0.25 error points
One misspelled medical word for a value of 0.75 error points
Total error points for dictation #1: 1.0

On dictation #2, she had the following errors:
One wrong medical word for a value of 1.0 error points
Two minor punctuation errors for a value of 0.50 error points (0.25 x 2)
One omitted minor English word for a value of 0.25 error points
Total error points for dictation #2: 1.75

On dictations #3 and #4, there were no errors.
Total error points for dictations #3 and #4: 0

On dictation #5, she made the following error:
One wrong medical word for a value of 1.0 error points
Total error points for dictation #5: 1.0

On dictation #6, she made the following errors:
Two omitted medical words for a value of 2.0 error points (1.0 x 2)
One minor punctuation error for a value of 0.25 error points
Total error points for dictation #6: 2.25

On dictation #7, she made the following errors:
Two capitalization errors for a value of 0.5 error points (0.25 x 2)
Two wrong medical words for a value of 2.0 error points (1.0 x 2)
One misspelled medical word for a value of 0.75 error points.
Total error points for dictation #7: 3.25

Total error points for entire examination: 9.25

Step 6. Take the total number of error points and divide by the total number of lines in the exam to arrive at the error quotient.

Example:
Jane Doe has 9.25 error points.
The total number of lines in exam is 77.
9.25 divided by 77 = 0.12 error quotient

Step 7. Subtract the error quotient from 1.00 to arrive at the accuracy score.

Example:
For Jane Doe's test, subtract her error quotient of 0.12 from 1.00.
1.00 minus 0.12 = 0.88 accuracy score

Step 8. Multiply the accuracy score by 100 to obtain a percentage.

Example:
For Jane Doe, multiple her 0.88 accuracy score by 100.
0.88 x 100 = 88%

Jane Doe's test score is 88%.

Determining a Letter Grade

After arriving at a final accuracy score percentage for the test, the instructor may elect to use the following table to determine a letter grade.

Accuracy Score	*Letter Grade*
93-100	A
85-92	B
77-84	C
69-76	D
Below 69	Failing

Note: On the job, transcriptionists are expected to maintain an accuracy rate of 97% or higher.

Error Diagnostics

After transcribing a dictation to the best of your ability, using all of the references at your disposal, check your transcribed document against the corresponding SUM Program report transcript key. Mark or highlight each error, including incorrect medical and English spelling, grammar, and punctuation errors.

After marking your errors, tally them under the following headings on a separate piece of paper:

- Omitted dictated word
- Wrong word
- Misspelled word
- Typographical error
- Grammatical error
- Punctuation error

Compare the type of errors made with the problem and solution list below.

PROBLEM	SOLUTION
Omitted dictated word	Listen carefully to the dictation and slow your pace. Do not attempt to increase your transcription speed until these types of errors are minimal.
Wrong word	Take care in checking word definitions. The definition should match the context of the report.
Misspelled word	Mentally spell the corrected word several times. Highlight in your dictionary or write the word in a notebook so that you will be aware of it each time you look it up.
Typographical error	Your proofreading is at fault. Allow time to elapse between the time you transcribe the report and the time you proofread it.
Grammatical error	If you are making a significant number of these types of errors, a review of basic English grammar is in order.
Punctuation error	There are many acceptable alternative punctuation styles, so first try to determine if you have actually made an error. If your punctuation errors are consistent or significant enough to alter medical meaning, a review of basic punctuation would be useful.

Organizing Your Materials

by Marcy Diehl, BVE, CMT, CMA-A

What are the best ways to organize your teaching materials? Try the following tips:

1. Use color.
2. Use folders with one-third cut tabs with left, center, and right cuts.
3. Determine what materials you have to organize, including:
   - Tests
   - Lectures
   - Keys to tapes
   - Handouts
   - Transparencies or other visual aids
   - Course syllabus
   - Professional association materials
   - Miscellaneous (of course)

If you have more than one level of classes (for instance, a beginning and an advanced transcription class), then use color for each level—blue for the beginning students and red for the advanced. That way you won't mix the materials nor will you have to look at the label to read the level. If you have additional classes, choose a different color for each of them—terminology could be yellow, legal and ethics green, and so on.

If you don't need to use color for this purpose, you can use it for tests—practice tests in yellow, minor exams in blue folders, and the final exam in *RED!*

In addition, there are some materials you need to have ready before classes begin each semester; they can be marked with a colored signal dot on or over the folder tab itself. You pull these folders out for use and worry about other material after the class has formed.

Some Suggestions

1. Make a list for how you have this set up and tape it to the front of your storage unit in the beginning so you won't forget.
2. Folder tabs may do more than just position labels so you can read them.
   - Tests (if you aren't using color for these)—left tab
   - Lectures—right tab
   - Keys to tapes—middle tab
   - Handouts—left tab
   - Transparencies or other visual aids—middle tab
   - Course syllabus—right tab
   - Organization of professional association materials—middle tab
   - Miscellaneous—middle tab

Notice that there is some method here: Items the students are given throughout the semester are on the left, items for your reference are in the middle, and the course outline (syllabus) and lectures are on the right.

Instructional Handouts

by Marcy Diehl, BVE, CMT, CMA-A

Whenever you have something that students must refer to as the class progresses, or you have a certain undertaking that they are involved in, or you have a precise skill or exercise you want to be sure they carry out properly, a detailed handout is the only way to be sure that you have prepared the student to be successful.

Telling students about these projects, writing them on the board, or putting them on an overhead does not give the students the clear directions necessary. They could fail to take good notes, they could copy incorrectly, or they could leave out a line of material. Also, you have nothing to refer to if you have erased your board or forgotten exactly what you said.

For instance, I wrote on the board the dates that we would have a practice exam, a drill day, and the exam itself. Three dates, that's all. We probably had *four* different, unnecessary discussions of those dates after that, including the fact that someone said she thought one of the dates I wrote down was a day of the week other than a class day (it was).

Were these dates and what was expected on these dates important? To a minor degree they were, but if they had been important to a major degree, I should have taken the time to write them out, check them for accuracy, be sure none of the dates conflict with other projects I have assigned, or holidays, and so on. Then they would have been printed and distributed (on colored paper, of course). In so doing, I have said to the students, by the very fact that the information is in a handout, "These are important dates—be prepared."

Let's begin with the course syllabus, as an example, since it is the first handout you will probably give the students. Since this generally consists of several pages, the first topic I want to mention is to **color code the different areas within the syllabus**. This ensures that, when you are discussing this handout in class, everyone is on the same page. Page numbers, believe it or not, do not work as well as color for this.

For instance, you may have a page concerning grading or scoring in your packet. You have printed it on *green* paper. When you first discuss it in class, you ask everyone to find the green sheet. It is discovered instantly. In the days to come, when a student comes to ask something about grading, you can say, "Look for the green sheet in your syllabus."

My syllabus has a page of homework assignments and a page of lab assignments. It is very important that they be different colors since students seem to have a problem with the concept of what is due for class the next session and what they may work on during the lab period. These pages are titled HOMEWORK or LAB WORK and are discussed carefully on the first day, again using the colors to distinguish them in the multipage handout. On days when they are used, it is convenient to say, "Turn to the *blue* page in your syllabus and let's see what we have for homework for tomorrow." Or for the lab students who come and ask what they should be doing, you can refer them to the next option on the *yellow* lab sheet. Finally, for the student who has not submitted work properly, you can write a note that says to consult the *buff* instruction sheet in the syllabus.

No, not every single page is a different color, and, yes, I do use page numbers. Instructions that run to more than one page should be numbered and of the same color. Yes, every color is important; there are no colors used twice for unrelated material. Since there are six colors to choose from, I don't run out.

The cover sheet which lists the identification of the class, class hours, prerequisites, office hours, and so on consists of several numbered white pages. I also number the rest of the pages in the syllabus. This assists our duplicating department in collating the packet in the proper order and avoids a random ranking of the material. "Look at page 3 in the white section" is a helpful organizational tool.

Further, I have one class section where students are working at different levels. Each group receives a different syllabus on the first day. Since I try to keep these color-coded pages representing the same material, I face each syllabus with a different color-coded card stock cover. As each group is identified, the proper syllabus is distributed. When I go through the syllabus, I can still refer to the colored pages which may say different things to each group but will reflect the same category: homework, lab work, scoring.

Instructional handouts refers to any material that you prepare for your students during the course of the semester, be it the original class syllabus or a written description of a project that you have planned for them. Tests are not considered a handout for the purpose of this discussion; however, how to study or prepare for a test could be.

These instructional sheets may be used as **job sheets**, giving guidance and instructions for all the steps in doing a complete task or project (e.g., getting out, setting up, and returning the transcriber); **information sheets**, giving facts on a single topic (a meeting flyer or dates for exams); **operation sheets**, giving detailed instructions for a project (details on how to create a macro or the format for a memo); **assignment sheets**, giving the directions and specifications for a problem-solving task (reading or required work).

Several things to consider with instructional handouts are **preparation**, which includes preciseness and color; **distribution**, physical as well as presentation; and **follow-up** for those students not in class.

Preparation

The actual preparation of the handout is, of course, the most important consideration of all. Decide which of these components you should include:

- Heading or title
- Purpose, importance, objective of the project
- Specifications and general directions
- Equipment and/or materials needed
- Illustrations or drawings to instruct or amuse
- Steps of the procedure
- Check points (where the instructor is required)
- References, special information, or cautions needed

Keep handouts brief, and use language that is easily understood. Explain any new terms. Use short and simple sentences. Use a clear, descriptive title. Leave plenty of "white space" (good margins, spaces around illustrations, and so on). Use liberal visual accents such as capitals, underscores, check marks, arrows, and accent spots. And use color!

I begin by writing down exactly what information I want to present, why, and the dates (start-up and completion) when applicable. I check my rough draft for unanswered questions by pretending to be the student. Your purpose is defeated if you give out a handout telling students to read articles without telling them how many, the type of articles, where to obtain them, how to prove the articles

were read, how to make a report on them, how long the report should be, how to identify the articles, or the deadline that the report may be turned in for credit.

Unfortunately, some instruction sheets are not read. They are uninteresting or difficult to read or they are perceived as unimportant. One might consider giving a test as a follow-up to a very important instructional handout. I do this with my class syllabus, and I warn them about the test so they can prepare for it.

Distribution and Follow-up

When you distribute the color-coded syllabus, you can see already that the colored jackets help you get the correct packet to the right student. Now, don't forget to use color on days when you have more than one handout. This way you can be sure that each student has one of each color, and when you begin to speak about the handout you just ask students to select the proper color rather than a title, which would require their reading each handout. (Students who arrive late immediately ask for the yellow handout you just mentioned rather than trying to quickly scan those they have.)

Since I frequently have material to hand out, I resent spending class time getting the handouts to each student in a complicated lab arrangement. Even in a nicely laid out, row-by-row desk arrangement, I find that I can get the materials into the hands of the students much faster by setting them up ahead of time.

I make a folder for each row, or each set, of computers and put all the handouts in these folders. Each folder has the name of the set or the number of the row, and the students have written their names on the folder so I know how many items to place inside. Then I load these folders and give them to a single person at the head of the row, or in the set, of computers. This individual sees that each member of the group gets the material. (By the way, I also use these folders for the distribution of flyers and tests.)

Students who arrive late know to seek out the folder for their group to obtain the material. I do not leave unclaimed handouts in the folders because it causes confusion at the next class meeting. The student who misses class (and thereby misses handouts) is responsible for seeking out these materials. I carry them back to the classroom, in dated folders, for two class periods; after that, they remain in my office files.

The business of keeping old handouts, and getting the proper ones to the student who later requests them, became such a headache that I actually made a handout titled "Handout on Handouts." It gives the students directions on obtaining handouts from days they were absent, e.g., calling ahead and asking another student to pick them up, remembering to ask for them the very next class period when I have them, coming to my office after that, and identifying them properly. One thing that is very distressing is to have a student who missed class come in and say, "Did you give out anything? I want a copy." By then I can't remember! Having this organized ahead of time is very helpful.

Does all this take a long time to organize? Yes, but it is worth it, just like any instructional handout.

Student Work Folders

by Marcy Diehl, BVE, CMT, CMA-A

As soon as you ask students to do typing, homework, or transcription assignments or projects for class, you have several things to think about:

- Will you keep track of assignments?
- Will you score assignments?
- How will you score assignments?
- Will you record assignment scores?
- Will you track dates for accomplishing certain projects?
- How will students identify their work?

- Will you differentiate between a project score and a test score?
- Will you record and date typing speed?
- How will you record extra credit or special projects?
- Will you use a typical score book to record attendance and test scores?

The answers to these questions and similar recordkeeping problems may be as simple as a file folder (with some special features).

Begin with a colored, standard-sized file folder for each student—the color will indicate the semester that the student began classes. (In one classroom I generally have students from three different semesters—representing three levels of study—and from time to time there is a student returning from several semesters previous.) This gives you and the students a quick visual guide to which level they are completing.

The folder is labeled with the student's name, releasing the student from having to type his/her name on each piece of work turned in. The **new** students receive their folder during the first class period of the new semester. Inside is your class syllabus, a piece of card stock $4\frac{1}{4}$ x 11 inches, and a sheet of labels. The card stock is folded lengthwise and the students print their names front and back on this and place it on the top of the computer monitor. I gather these in at the end of class, and the students collect them at the next class period. Those remaining on my desk are dated and I track absences. The tardy students claim theirs and I add a "T" after the date. The syllabus is removed to be discussed later.

Next, each student makes a label with his/her name on it, using a typewriter. (If there are none available for your students, ask them to print neatly.) I ask them to place the named label on the folder tab and return the unused labels to the folder. As I gather the folders, I write the row and seat number on the label; this helps me later when I make a seating chart. Students returning from previous semesters are given their folders that I kept; I generally keep them three years. (Only one student returned after a three-year hiatus.) Of course, these folders bear the color from that particular semester so the color code ranks them in the classroom.

Before the next class, I make my seating chart from the information on the label. Then I tape lists of projects and tests inside both the front and the back of the folder. Every assignment and test is listed. There is space for dating projects if desired; generally a check or initial is all that is required.

Let's look at the projects first: I have them divided into **homework** or **workbook** assignments. These include punctuation, working with numbers, capitalization, editing, using reference books, and so on. They are listed in the order assigned, and when there is a test on this material it is listed in bold. There is a blank underlined space after each item so that a date, initial, or score may be inserted. This list reinforces the idea that these are assignments to be completed and also provides the students with a list of what has been accomplished.

Lab work, which consists of computer and copy typing projects, is listed on the facing sheet. Again these are listed according to the chapter and number in their text, with each of the skills to be achieved listed.

In this way, the instructor knows what the instructions were to the student and has only to glance at the work to see if the goals were met, marking off only those skills with errors, and entering a score. For instance: The project may be a letter and the directions indicate that it is to be typed in full block style, open punctuation, with a reference line, and so on. These skills are listed along with other prompts for you, including reference initials, proper placement on the page, margins, date placement, correct address format. The final score area also includes an area to check off if the assignment is to be re-read or re-done.

Each project itself is identified with the number of the project and the name of the patient or the recipient of the letter. When this group of projects is completed, another sheet is overlaid, exposing the bottom of the first sheet which identifies the name of the project sheet. All three project sheets are shingled.

Now, to return to the inside of the folder where the homework projects are listed: When these are completed, a cover sheet is placed over it as well, and all the transcription tapes are listed by number, medical specialty, number of documents on the tape, with a box for the order or date the tape was finished and an area for the instructor to list the types of errors and the scores for the tape. The top of the page has an area where you can fill in the semester and the year. On the bottom of this page is an area for the score for the midterm, final exam, and semester grade.

Returning students' folders are given an identical new sheet with the new semester and year entered at the top. Students going to an advanced set of tapes receive yet another overlay (in a different color) with all the advanced tapes listed.

Students hand in these folders with their work as soon as they complete it. You score or check off as you deem necessary and return the folder. Each time you see the folder you have a progress report on that student. At midterm, I record the midterm score in the place provided and have each student bring the folder to a personal conference.

At this point the two of you can see and discuss progress. No longer do you lack clues concerning material being incomplete, late, done exceptionally well, lagging behind the rest of the class, consistently needing to be redone, and so on. It takes you past the A, B, C, D, F with pluses and minuses. You can point out to the students where extra work is needed or where they should be directing their efforts. If projects are overdue, remedies may be suggested. Praise is given to students whose folders are a picture of success. Finally, the students place their final exams in the folders. Thus, the folders end up in my possession at the end of the term.

The outer face of the folder is not neglected: Stickers and stars may be placed here from time to time. Adults are often just as fond as grade school children for their work to be praised this way. These labels also provide a clue to me that certain special assignments are complete. Thus, everyone eventually has a star—not just those doing star work.

Obstacles to Success

by Marcy Diehl, BVE, CMT, CMA-A

We hope that our students will be successful both as students and as career medical transcriptionists. However, we know that more of them could succeed with some help.

After introducing the syllabus and briefly highlighting what I hope we will accomplish during the semester, I ask my students to think of obstacles to their success in the class. (If you do this before you discuss objectives, they think they can handle anything you have in mind.)

Most of the students have no idea of the scope of even one semester of the curriculum. After they see the class outline and objectives, the facts begin to become apparent and some students start to think that maybe this is more than they can handle or even want to attempt. Of course, this is not everyone. Many students have friends who have prepared them, and others expect to have to work hard in any class.

Focusing on obstacles to success may sound like a negative process, but it is, in fact, positive. I tell students that I expect them to be a success, but they have to think that way as well. Therefore, I begin by asking the class to tell me what they think may cause them to be less than successful during the course of the semester. As the teacher, you need to be prepared with a positive response to what may be said and also prepared with what you will say if you have no appropriate suggestion, comment, or response at all to the obstacle presented. It is actually not as hard as you think if you have been teaching for a while, because these very problems will eventually be voiced one way or another—often too late to do anything about them.

Time. "I don't know if I am going to have enough time to do all this homework."

Having homework comes as a surprise to some students who think all work is going to be done in the classroom and have no plans to adjust their lives for work outside of class. They sign up for a five-hour class, with five hours per week to spare and no more.

This is your opportunity to tell students how much time they will need to spend outside the classroom in order to be successful. A good estimate is to take the lecture hours and double them for outside work (AKA homework). Next, the benefits of earmarking additional time to prepare for tests and to do more work than is assigned. This "more than assigned" advice is met with enthusiasm by those students who want to get ahead as quickly as possible, and with dismay by those who are fighting this much commitment.

For use outside the regular classroom time, we have a skills lab set up with tapes and equipment. The hours when the lab is open are posted, and students are strongly encouraged to spend an additional three hours a week in the lab. The students who were worried about finding time before are now even more concerned. How does one do this too? Easy—plan for it now. Tell them not to think about this as a five-hour class, but think about it as five hours in class, five more at home, and even three more in the skills lab.

Students may want to know why this is a good plan of action. They need to know it is important to plan ahead and start putting it into their weekly schedule and not have it creep up on them. Students can choose *when* they are going to do the additional five hours of homework, and what day or evening they will come in for the extra lab work.

Advise the students to ease into it. Don't start the outside lab for a week or so. You may not need that much homework time in the beginning or at the end of the semester. In fact, as soon as you see you have less homework to do, plan to spend that time in the outside lab!

Now, all of the students (not just the one with the perceived time barrier to success) can be more realistic about what is expected and take a look at their entire schedule. Students may wonder, if this class is going to take this much time, what about my other classes? Some students have too many classes scheduled, and now is not too soon to discover it. Dropping a class well into the semester may result in a feeling of failure, whereas dropping one early on puts the student in control of the situation. I send students to counseling for nonbiased professional advice when necessary.

If students come to me with their schedule and ask for help, I may spot a class or two that would be more appropriately taken later. They may have signed up for something "interesting" that will only add to the time-stress factor; I may suggest that this class be saved for some later date. A student who is in a time bind and taking medical terminology, medical transcription, and a speech class has an obvious choice. However, a student taking anatomy and physiology, medical terminology, and beginning transcription may not have a problem as clear cut.

Perhaps your class is the one they should drop. When they come back to your class later on, they will be better prepared to work, and grateful for the advice. (Actually, in this last scenario, I would suggest dropping the A&P. They can take that class the following semester when they take advanced transcription. Taking this difficult lab class *after* they take terminology makes more sense.)

The time of day that a class is taken may affect the time problem itself. I always discourage students from taking medical terminology and medical transcription at night during the same semester, since these students are nearly always working full time during the day. Even working part time and having family responsibilities makes this a nightmare schedule. Which brings up the next issue that can be an obstacle to success: work schedules.

Employment. "I work every day when I am not in class. How can I do that and prepare homework for this, too?"

Maybe you can't, and now is the time to decide that. Students often can shift part-time schedules around and accommodate more classtime work. Some students have jobs where they can actually find the time to do homework during lulls at work. Some students may decide that the time is right to cut back on their work hours.

This is also the time for students to become realistic about goals. I continue to be flabbergasted by the student who comes to me in the second week of school and tells me that she will be coming late on Tuesday because she has to "open at work," or she may miss every other Thursday due to scheduling, and she hopes this won't cause a problem. Now is *not* the time to be nice or accommodating; now is the time to help the student get realistic. My point on the issue of work is this: If medical transcription is the work you want to be doing in the future, then you must invest your time in preparation for it now.

One thing I have learned is that I can't *teach* students time management. I have finally decided it is one of those talents you are born with! However, I can help them be realistic about the time they do have or can manage, and I work hard to keep them from being discouraged. I am more realistic and so are they about what they can accomplish.

For the student who was brave enough to announce *time* as a barrier to success, the ball is back in her court now, and she has a few more facts to use in her game plan. The same holds true of the time-work problem. We really have looked at the true issue of time and how much is needed to be successful this semester.

Family. They usually begin this one with an outline of family dynamics: single parent, living with their own parents, nuclear family with x number of children, and so on. Often the family problem is the reluctance on the part of an adult family member to approve of time away from the family and its responsibilities. Children involved in their school and sports activities may also cause the student a problem when the child's events and activities don't receive the same parental attention they once did. Then there is the child-care problem when another family member is pressed into this service or the student knows there is the potential for inconsistent outside child-care situations.

Discuss hidden problem areas before they start. Suggest that a family conference be held before any more time is spent in class. Let the family in on all the school's expectations. Tell the family when the school commitments will conclude (end of semester). Ask "Why is the mom or dad doing this to the family?" immediately followed with a positive idea such as "How will the family eventually benefit?" How can the family cooperate with the student to support the student's activities? Once the family understands what this will mean to family dynamics, they can join in with ideas to help.

Suggestions from you could be meal planning, quiet time to study, weekends available to spend on projects, and so on. Suggest that they plan some good breaks, interrupting the school routine once or twice to enjoy some family activities. Suggest they joke about it, even plan to "fill the freezer with frozen dinners."

The result of this presentation is that students get another hard look at their commitment and can perhaps plan a realistic program for how this will fit into an established routine. Family members depending on the student for rides to physician appointments, for shopping trips, and so on have actually caused major attendance problems. Suggest that students print a schedule of "Out-of-School Times" and have it available when making appointments or planning excursions.

Equipment. This is often a major concern for the student unfamiliar with computers and transcribers. Even those students with a basic understanding of the computer may immediately assume that their computer skills are not going to be adequate for medical transcription. Outline the various skills required and reassure them that they do not need a two-semester course in personal computers in order to begin this class. Sometimes they see a nearby student immediately accessing the program while they are hunting and poking through the menu.

A complete description of the programs you are running in the lab is important, followed by how you intend to tutor anyone who is not familiar with your computer program. (I have a tutorial available to distribute immediately for anyone wishing to use it.) Ask the class in general for volunteers to help someone with an occasional problem. List the hours that the tutorial lab is available, how it is set up for help, and so on. Students inexperienced on computers may need to hear terms like "typing" and "like a wonderful enhanced typewriter" rather than "command shortcuts," "pulldown menus," "macros," or "boilerplates."

Talk about the transcribing machines. Don't go into the complete history or use of the equipment during this particular session but let them know that will be discussed with a demonstration later.

Instead, tell them truthfully, "You will enjoy doing this." "Just think, you will be able to see on the screen exactly what you are typing without having to look at any words on paper, pad, or book." Briefly explain about transcribing being totally under their own control and reassure them that they don't have to keep up with the spoken word. You are planning to do this lecture later on, but until it is done, there are doubts and worries. "Can I handle two pieces of equipment and listen at the same time?" may be the question they carry home after a glance around the classroom. You're telling them they can and that it will be fun.

"I don't have a transcriber or computer at home. How can I keep up?" Discuss the requirements you have for any equipment. If you have practice labs at the school, explain when these are available and how they work. Discuss the activity of relistening to material they have transcribed or previewing new material with a tape recorder at home; at the same time, discourage anyone from trying to transcribe from a tape recorder. Discuss the use of a typewriter if they have one available. Students with computer systems often want to have a transcriber to use at home right away in order to move ahead rapidly. You might suggest leasing a transcriber until they are sure what kind they want to purchase. If equipment is required for outside practice, this must be explained in the course description.

Terminology. "Is my medical terminology good enough for these complicated medical reports, and will I be able to understand it and spell it?" You know the depth of their medical terminology course, but that is not the important issue here. The issue is the student wanting to know everything all at once. Now is the time to reassure students that they are there to put the knowledge they already have to work, that they will be adding to that knowledge all the time, and that it does take time. They will probably *not* have enough understanding of terms at this point; that understanding comes with practice and drills, time, and learning to use the reference materials that are available. That is, after all, why they are here. They must be patient with themselves.

Speed. "How fast do I need to type for class and to be employable?" Encourage slow typists (less than 45 wpm) to take a power-typing class. Often, controlled drills are essential to build speed. Explain the problem of keeping up with classroom and lab projects when speed is missing. Some speed will come with increased familiarity with the keyboard. Many discussions can arise from this question, including payment by line counts, the importance of quality over quantity, and so on.

Textbook. "Gosh, it's thick. Are we going to finish all of it this semester?" If yes, tell them how; if no, then when and why. Why did you choose this text for them? Make them enthusiastic about it now. I point out that the one I selected for them will continue to be useful.

English grammar skills. Don't let me fool you with this one—no one asks. They all think they have this covered. You know better! Save this little bit of bad news for later on. (If someone does ask, I simply say: "You have come to the right place. Hang on.")

Finally (and this one surprised me when it came), **getting along with the instructor**. It never occurred to me that some students, for whatever reason, might be worried about this. Perhaps they never really did well in school before, never got along well with teachers, did not get along with their mother or father, and see you as a figure in that role. School work itself is controlled by this "teacher" and therefore controls me.

Whatever your philosophy for getting along with students, now is the time to lay it out. Be blunt: "You want to get along with me? Great, you've just done it. I like people with this attitude." Or "Do your homework; come see me during office hours when you have any problem you want to discuss; do the best work of which you are capable."

Reassure students that you are available for them (and restate *when*), you will take time for them, you will answer all questions (even more than once), and you teach as if everyone in the class is a beginner and not as if they already have some specialized knowledge.

Finally, you can be funny. "Well, cookies every Friday would be helpful."

TO COPY OR NOT TO COPY:
Using Copyrighted Material

by Ellen Drake, CMT

Since the half-million-dollar judgment against Kinko's copy centers, concern over copyright and copyright abuses has increased exponentially in educational circles. In some educational facilities, overreaction has brought about a "no copying ever" edict; some remain blithely unaware or uncaring; and in some facilities, individual instructors have simply found the time to covertly copy questionable material rather than send it to the school's copy department. Schools, however, are not the only abusers of copyright. Many individuals and organizations—from small businesses to large companies, for-profit and nonprofit associations—reproduce and distribute material for which they have not received permission to copy.

What is copyright? The copyright establishes the authorship, the ownership, of any work that is a tangible medium of expression. That owner alone has the right to decide who has permission to reproduce, distribute copies, prepare derivative versions (as in a movie from a book), or to perform or display the work publicly. Facts, ideas, procedures, processes, systems, concepts, principles of discovery, although possibly protected under patent or trade secret laws, are not copyrightable. However, the **form of expression** (the way in which the facts are reported, for example) is covered by copyright. Therefore, while the spellings of medical terms, phrases, or drug names are not protected under copyright, the manner in which these facts are expressed, as in a word book, is protected. Furthermore, the fact that a work is unpublished, or a previously published work is out of print, does not affect its copyright. The absence of a copyright notice does not mean that the work can be freely copied.

The **penalties for copyright violation** are quite high—up to $100,000 per work infringed, or actual damages including the infringer's profits, attorney's fees, and injunctive relief from further infringement. In view of this, Kinko's penalty was quite light. Kinko's was preparing anthologies from copyrighted works and selling those anthologies to students for a profit, depriving publishers and authors of royalty income.

What about "fair use"? Many use the fair use doctrine of copyright law to justify copying for educational purposes. There are four factors which contribute to fair use:

- The purpose and character of the use. (Is it commercial or for nonprofit, educational purposes?)
- The nature of the copyrighted work.
- The amount of material to be copied and its proportion to the whole work.
- The effect of reproduction upon the potential market or the value of the copyrighted work.

Note that educational use alone is not sufficient to qualify for right to reproduce without permission. The above guidelines establish minimum permissible conduct under the law. Making multiple copies without permission in an educational setting must meet ALL of the following guidelines to qualify as fair use.

Inspiration. The decision to use a piece and the moment of its maximum teaching effectiveness are so close together in time that a timely reply to a request for permission would be unreasonable. Therefore, the decision to reproduce a copyrighted work for classroom use may not be at the direction of a higher authority (dean or head of a department) nor may the same work be duplicated and used by the same teacher from term to term.

Size. A work may be photocopied if the work copied is a complete article, story, or essay and less than approximately 2500 words. Excerpts of 1,000 words or 10% of longer works, whichever is less, are allowed. One illustration (graph, chart, diagram, drawing, cartoon, or picture) per book or periodical may be reproduced without permission. Complete poems of less than 250 words and printed on no more than two pages or excerpts of less than 250 words from longer poems may be copied.

No more than one short poem, article, story, or essay or two excerpts by the same author, or three excerpts or works from the same collective work or periodical volume during one class term, and no more than nine such instances of multiple copying, may be done for one course during one class term. (This does not include news periodicals, newspapers, or current news sections of other periodicals). Fair use does not allow works to be reproduced to create, replace, or substitute for anthologies, compilations, or collective works, whether copies are bound together or distributed separately. It is not permissible to duplicate workbooks, exercises, standardized tests, test booklets, answer sheets, and the like. Reproduction of copyrighted materials may not substitute for the purchase of books, reprints, or periodicals.

Purpose. The copied work may be used only in one course for one term in the school. Furthermore, the copyrighted material reproduced without permission may not be sold to students at a charge greater than the actual cost of photocopying, and the copyright notice must appear on all copies of the original work.

So many times, photocopying is done thoughtlessly but without malice, but this does not protect you from prosecution for copyright violation by some publishers. Consider what it would be like if the payroll clerk decided to deduct a dollar out of every paycheck that you received, then the bank teller took a dollar when you made a deposit, and an extra dollar went to each endorser to whom you wrote a check. It's only a little here, and a little there, but multiple abuses add up, don't they?

Rather than violating copyright, you can usually obtain reprints and replacement materials for a very small charge. Health Professions Institute (HPI) will send you reprints (probably of higher quality than made by your copier) for a very small fee, as do many other professional journals and commercial periodicals. HPI replaces damaged cassette tapes at no charge for up to one year after purchase, and the cost for additional tapes after the purchase of an initial set or to replace a lost tape is no more than what it would cost you to copy the tape. In addition, HPI often provides teachers with camera-ready materials for classroom use and grants permission to copy at no charge.

Identifying the copyright holder and requesting permission to photocopy is much less complex than it used to be. Reprints are often readily available and inexpensive. Plan ahead and be fair to the authors and publishers of copyrighted work. Not only is it safer, it's ethical and professional, and isn't that what we are teaching transcriptionists?

Our school claims never to have the money for the materials I need to adequately teach my course. How can I teach without needed materials?

Your school bookstore can, through the Copyright Clearance Center, and for a fee, obtain a license to reproduce certain materials, create anthologies, or make individual copies of specified works and sell them to the students at cost.

May we make several copies of an article for a classroom library for the students to borrow and return?

Certain parts of the copyright regulations allow libraries to copy a wide range of works, under certain circumstances and with certain restrictions, in order to maintain archives for the purposes of scholarly research. These rights do not extend to classroom "libraries." You may want to check into purchasing a few reprints from the publisher for such purposes. They should be relatively inexpensive.

If we do not charge for the copies and/or require their return after use, may we distribute multiple copies?

No. You do not have to sell copies to infringe on the copyright owner's rights.

What if I copy an entire work or substantial portion for my personal use?

Even one unauthorized copy for personal use may violate copyright. For scholarly research or use in teaching or preparing to teach, a teacher may copy a chapter from a book, an article from a periodical or newspaper, a short story, essay, or poem, or an illustration.

What if I make only one copy of a work I bought?

Buying a book or periodical entitles you only to that original; copying in whole or in part without copyright owner's permission would amount to infringement unless such copying qualifies for "fair use."

What if there's no copyright notice?

The absence of a notice does not mean the work is not protected by copyright. Contact the publisher.

We ordered textbooks for class but they did not arrive in time. Can I copy the first chapter or a portion of the text until the books arrive?

You need to contact the publisher to see what procedures the company follows in such a case; some publishers may give permission to copy under such circumstances.

Does "fair use" apply to other nonprofit or profit organizations?

No, the fair use provision was included for nonprofit educational institutions only. It does provide for limited quotes for purposes of reviewing a work, literary criticism, news reports, or research papers.

Are there ways to obtain permission to copy a work other than by writing the publisher?

The National Association of College Stores (NACS) has a Copyright Permissions Service that serves as a clearinghouse for permission requests. Your school bookstore should have the forms for submitting requests and may even submit the request for you.

In addition, the Association of American Publishers accepts requests for permission to copy through PUBNET, its electronic textbook ordering network. Finally, there is the Copyright Clearance Center (CCC) which offers centralized photocopy permissions and payment systems through its Academic Permissions Service.

Both PUBNET and the CCC have agreements with publishers, and when there is a charge for the permission, they handle the distribution of the fees to the appropriate copyright holder. Some periodicals publish the procedures and fees for authorization to photocopy in their masthead.

Your college bookstore may be able to offer more help than you realize in obtaining permission to reproduce course packets, anthologies, or occasional ancillary material for use in your classroom. None of these services guarantee that permission to copy any material will be granted, nor does going directly to the publisher.

Our medical transcription department gets one copy of a professional periodical and photocopies relevant articles and word lists for each transcriptionist. Is this okay?

No. The provisions for "fair use" for education apply to educational institutions only, not other businesses. Your department could legally circulate the periodical and allow the transcriptionists to hand-copy pertinent words and information into notebooks.

If the material is so valuable, your supervisor should consider several subscriptions for the department, if not one for each employee or each desk. Interestingly, if a school, library, commercial copy center, or company provides unsupervised photocopying equipment to be used by the public or employees, it may be liable for copyright infringement that it didn't know was taking place, unless it has a posted notice regarding photocopying restrictions.

I've been trying to get my friend to subscribe to a periodical which I think is excellent. If I copy an article from the magazine to show her how excellent it is, am I violating copyright?

Technically, yes. However, if you limit your copying to one article of one issue, it is probably of no consequence. If you can persuade others to subscribe to *Perspectives* by copying one article for them, please do.

What a publisher will certainly object to is the wholesale copying of an entire publication, whether one set or multiple sets, which effectively reduces potential subscriptions.

Educationalese and Marketing

EDUSPEAK: Educational Terminology 101 for New Medical Transcription Instructors,

by Josephine Gordon and Carolyn Grimes

People who teach medical transcription, like many other allied health programs, usually train and work as medical transcriptionists and later decide to teach. If you were teaching language or math, you probably would have begun in a college of education because you were going to be an English teacher or a math teacher.

It is less likely that a child would grow up thinking of becoming a medical transcriptionist, much less grow up planning to be a teacher of medical transcription. And how can you teach medical transcription if you are not a medical transcriptionist? If you can't do it, you really can't teach it.

Transcription programs around the country are almost always looking for qualified transcription teachers. Haven't you ever been at work, busily transcribing, and noticed a fellow worker do something that makes you think, "If only I could have told them when they were starting that . . ."?

Perhaps you have the makings of a good teacher but have not given the possibility much consideration. Why not volunteer as a speaker or adjunct for your local educational institution's medical transcription program? That is a good way to start.

However, if you are really nervous about teaching, you could suggest being part of a panel discussion on issues relating to medical transcription. Panels are a great way to participate without having to carry the entire program by yourself. Students need to know what issues practicing transcriptionists are currently dealing with. Many students are just too shy to ask questions of a practicing medical transcriptionist at a chapter meeting. Once you're on their turf, however, they may gather considerable courage. So please offer to come to the classroom as a guest speaker, or to be part of a panel discussion. You may also consider becoming a member of a medical transcription program advisory committee.

For the new medical transcription instructor, the "language of education" can be strange and confusing. However, anyone who has mastered the "language of medicine" can easily learn educational "buzz words." Here is a glossary of terms the new transcription educator may hear:

articulation A commonly used term in education, meaning an agreement between institutions to accept courses taught by another school without the student having to repeat the courses. Articulation agreements can be with the university as well as the community college and are called 4+2+2 programs. The 4+2+2 programs consist of four years of high school, plus two years of community college, plus two years in a university; no time is wasted repeating what has already been learned.

convocation A meeting of all faculty, staff, and administrators. A convocation is usually held on the day before the academic year begins, or on the day before the beginning of a major term.

course leveling The level at which educational programs or courses are offered, such as vocational, college, or university. The level is determined by a state-sponsored Leveling Committee consisting of educators and practitioners in a specific discipline. For example, medical transcription in Florida is placed by the state's Leveling Committee at the vocational level; therefore, it is not possible to be awarded a college degree in medical transcription from a Florida state college at the present time.

curriculum A particular course of study, usually in a special field. The plural form of the word, **curricula**, means all of the courses of study offered by an educational institution.

curriculum frameworks Criteria, which include competencies and outcomes for a particular program, set by a state Discipline Committee. The state curriculum frameworks for Medical Transcription are similar to the ComPro competencies developed by AAMT. The curriculum frameworks are reviewed and/or revised on an annual basis and are available on disk.

DACUM An acronym that means "developing a curriculum." In conducting a DACUM, experts are selected to attend a two-day workshop to interact and describe their jobs in great detail. The panel is led by a trained facilitator who lists the major duties and tasks associated with their jobs. Brainstorming techniques are used to develop a consensus. Ultimately, a survey is developed, listing the major duties and tasks identified by the panel. The survey is distributed to the original DACUM group for verification and then sent to people in industry to rank the importance of each duty and task. The results are used to establish the curriculum for the discipline. The DACUM is a very intense experience.

discipline A specific area of knowledge or skills, usually identified with a special subject matter area, course prefix and number.

distance-learning Formerly referred to as "correspondence courses," today's distance-learning employs a variety of media and technology—simple methods such as mailing out video and/or audio tapes and tests to students, to highly technical setups where the instructor at one location can see the students at another location and answer questions in real time. Many educational courses are now offered over the Internet as well.

endowed chairs Similar to grants in that faculty members awarded endowed chairs receive X amount of dollars for X amount of time and purpose. Many schools have endowed chairs from sponsors and may require specific criteria. Investigate! Funding sources in most cases, especially for travel, are very scarce. Keeping up continuing education requirements can be expensive, and having an endowed chair is an excellent source to defray these costs.

matriculate A word used frequently in education, meaning to register or enroll in a college or university.

multiple intelligences Another current trend. Freely translated, this means that different people have different abilities, gifts, and interests. Now this common observation has a name and a theory to go with it. You should be able to find several books on the subject in your "media center." (I still think of it as the library.)

paradigm A mantra that is frequently invoked. After the initial reaction of "why can't they just say *parameter*," a quick grab for an English dictionary shows it is the Greek term for "to show an example." The dreaded P-word now just means *pattern*, but more often "mind-set" is the intent.

school-to-work initiative The School-to-Work Opportunities Act established a national framework to broaden the educational, career, and economic opportunities for all youth through partnerships between businesses, schools, community-based organizations, and state and local governments. Tech Prep falls under the School-to-Work Opportunities Act.

syllabus (plural, **syllabi**) A course outline detailing all of the course requirements and grading information. The syllabus is considered a legal contract with the student; therefore, it is necessary to be meticulous in following your institution's policies in preparing syllabi for your classes.

Tech Prep An excellent example of articulation and the result of education reform. Tech Prep is a program that gives high school students the opportunity for advanced placement in a specific area of study in an institution of higher learning. Students entering the community college immediately after graduating from high school have a head start in that they will not require remediation and will not have to repeat the advanced courses they have already completed in high school. For example, students in a high school Unit Clerk Program would take medical terminology and human anatomy and physiology. If those students want to enter into a medical transcription or health information management program at a community college, they would not have to repeat those courses in the community college. Tech Prep programs foster involvement with local industry, which is essential in "real training for real jobs."

tenure Originally designed to promote academic freedom, having tenure meant that you could not be terminated except perhaps for criminal activity. In some regions of the country tenure is being replaced with contracts for a specific number of years with the possibility of renewal at the end of that time. Tenure was recently the subject of a Doonesbury cartoon. It is interesting to note that academia is now downsizing along with industry.

The following are management terms that have crossed over to education:

Maslow's Hierarchy of Needs The need hierarchy of motivation, a theory espoused by A.H. Maslow. Maslow was an industrial psychologist who developed the following various levels of motives that have an influence on human behavior. From lowest to highest, the needs are:

1. Physiological needs such as food, water, shelter, and sleep.
2. Personal safety.
3. Love or acceptance by others.

4. Esteem and satisfaction from your work and the respect of others.
5. Self-actualization.

Total Quality Management (TQM) and Continuous Quality Improvement (CQI) These are terms associated with W.E. Deming, an American who was very interested in quality. When he could not arouse interest from American industry in his projects, he went to Japan. You may hear Japanese terms in relation to quality management and continuous quality improvement. Deming believed in continuous education programs for all employees.

Now that you have acquired some edu-speak savvy, why not expand your education further by teaching medical transcription at your local vocational-technical school or community college!

Recruiting Transcription Students (Urban Version)

Josephine Gordon and Carolyn Grimes

Recruiting students for a "hidden profession" presents a challenge, especially when you are trying to recruit students for a "secret campus." Much like our profession, Medical Center Campus in Miami, Florida, is not well known to the community at large. Together, these challenges call for creative recruitment strategies.

Medical transcription in Florida's education system is set at the vocational certificate level, so we cannot offer a degree in transcription.

High school visits and career fairs are always good strategies; however, we have experienced excellent results from middle-school visits. It seems the middle-school students take our brochures and other informational materials home to their parents and older siblings. Interestingly, we are seeing relatives of middle-school students entering our program the semester following our visit. And when the middle-school student is later ready to graduate from high school, he or she can enroll in our program right away.

At Medical Center Campus, we also have programs for elementary to middle-school children, which include "Medical School for Kids," "Scientist for a Day," and "Coca-Cola Career Academy," the latter sponsored by a special grant for drop-out prevention.

Our department, Medical Management Sciences, participates in all of these special programs. We provide the children with exercises, such as recording a medical history on a pet or superhero, to give the kids awareness of the information required for healthcare documentation. A keyboard demonstration with an abbreviation expansion program fascinates the young students and astounds their counselors as well.

The idea that you can earn a good living in healthcare, helping patients without ever touching one, is a revelation to many outside the profession, but it is particularly surprising to the children. Linking computer, science, and language skills with a special appreciation for spelling sounds at first like science fiction or "Revenge of the Nerds," but it is reality for the medical transcription profession.

We also recruit by posting flyers in places with high foot traffic. Grocery stores and laundry areas are stereotypically great for flyers, as they primarily target women, many of whom are mothers interested in making money at home.

Surprisingly, men are responding to the flyers. We have an increasing number of male students in our transcription program. What was once traditionally a female profession has steadily attracted men with interest in science and computers. Also, there is more interest in home-based businesses in general. The idea of medical transcription and its compatibility with computer telecommuting appeals to both men and women. Of course, the positive side effect of increased compensation when more males enter a field is appreciated.

Women's groups are usually quite receptive to presentations on career opportunities. For entrepreneurs, empty nesters, displaced housewives, and second-career seekers, medical transcription is a rewarding career that can be undertaken at any age.

An unexpected source of potential students is English teachers who are considering a career change. Often after our school presentations, we see interest has been aroused not only for students but for the teachers as well.

Since the mental demands of medical transcription far out-weigh the physical, the disabled should also be considered in recruitment activities. The only disability that would preclude a person with normal intellectual abilities from medical transcription would be deafness. Even though an individual may have a compensated hearing loss, the constant use of very high levels of amplification may continue to damage remaining hearing ability. Perhaps improvements in technology will solve this problem in the future as they already have for those with visual loss.

Medical transcriptionists have been threatened since the early 1980s by the advent of voice recognition technology; we were told that it would make our profession obsolete. More recently we have been promised that voice recognition would make our tasks easier and we would become medical editors. Voice recognition also impacts recruitment, but what was once a negative has now become a positive. Today it is perceived in a more positive light—at the very least, as carpal tunnel syndrome prevention.

Medical transcription student recruitment can be exciting and rewarding, making possible greater diversity in the classroom and ultimately in our profession.

Professional Growth

The Master Teacher

by Ellen Drake, CMT

The medical transcription profession suffers from a lack of qualified transcriptionists—partly due the failure of schools to see the need for quality medical transcription programs to prepare entry-level transcriptionists. Unfortunately, the problem is complicated by a lack of qualified medical transcription educators, now that more schools recognize the need.

Medical transcription instructors are entering the teaching field the same way most transcriptionists entered the profession, through on-the-job training. Many potential teachers feel inadequate to teach because of a perceived lack of teaching skills, teaching experience, or education in teaching. Few have the time, money, or opportunity to re-enter school themselves and get a four- or five-year degree in education.

How then can the need for medical transcription instructors be filled? Right from the ranks of practicing transcriptionists. How do those practicing transcriptionists learn the skills and gain the confidence to teach? One way, of course, is to attend seminars in medical transcription teaching. Another is to read good books on teaching. Perhaps one of the best ways, and least expensive, is to observe, study, and emulate master teachers wherever one finds them—in any discipline, not just medical transcription—in or out of school.

What is a master teacher? *Master* is defined as an artisan qualified to teach apprentices, an artist or performer of consummate skill. A master teacher, then, is one who has superior teaching abilities. In medical transcription teaching, the ideal master teacher would be one who has consummate skill as a transcriptionist (qualified to teach apprentices) and one who has superior teaching abilities.

Before reading further, sit for a few moments and think about the teachers who have been special in your life, those who greatly affected your intellectual or emotional growth, those who contributed to your success as a person or in your career. Jot down a few descriptive words and phrases that apply to these tremendously influential people in your life. Compare your memories of influential teachers with those of *Perspectives* readers that accompany this article. Now see if your special teacher is described here.

What are the characteristics of master teachers?

First, master teachers are forever students, learners. Acutely aware that they don't know everything, master teachers strive to close the gap on their ignorance. They have an insatiable curiosity, not just about a single subject but about all kinds of subjects: science, art, religion, geography, history, literature—especially literature. Master teachers love learning for learning's sake, not to impress others. They just want to know things.

Their enthusiasm for learning "rubs off" on their students. Master teachers are knowledgeable but always learning, growing, changing. Howard Hendricks, a theologian and noted teacher himself, quoted an admired teacher, "I would rather have my students drink from a running stream than a stagnant pool." Teachers must be up-to-date on their subject to be effective.

When I was very young, I called him Daddy; when I became a teenager, he became Pop. As I approach my fifties, he's been dead for almost 25 years; for some unknown reason (which probably has a lot to do with my own coming to terms with mortality), he's Daddy again. Yet, through it all, he was my master teacher. A philosopher in his own right, my father taught me three particular lessons whose importance I finally have come to see.

Lesson 1: "When in doubt, drop back ten yards and punt." Daddy wasn't much of a sports fan, and baseball held more interest for him, but he took that bit of football and taught me that there's always a way through every difficulty if I would just step back from the problem a bit and try to attack it in a different way before it could gain any more ground. Stopping and taking a breather in the midst of trouble is not my long suit, but when I take my father's advice, things do seem to work out better.

Lesson 2: "There's more than one side to every story, and, often times, more than two." My father showed me how life is never black and white, and sometimes not even just one shade of gray. Most times, life is made up of many colors, just like the rainbow, and black and white are just two of the endless possibilities.

Lesson 3: "Maybe Kathy will be a good influence." It was the summer between seventh and eighth grades, and a new girl had just moved into the neighborhood. Sherry was my age chronologically but she obviously knew a lot more about life than I did, and my mother wasn't too happy to see me making friends with her. One day I overheard Mom telling my father she was worried that Sherry would be a bad influence on me. "Maybe so," he replied, "but maybe, instead, Kathy will be a good influence on Sherry." I never forgot that my Dad trusted me enough not only to be a good kid but also to be a good influence on other kids.

Kathy Stewart

My father never made it big in the business world. He was a self-described "pencil pusher" for the New York Central Railroad in a little town in northeastern Ohio. He worked the second shift all his life and drove home for supper every night, though he only had a half hour, so he could spend it with his family. I don't know of a better example of someone who taught me some very important life lessons.

The master teacher understands that students learn best when they are in control of their own learning. Peter G. Beidler in *Distinguished Teachers on Effective Teaching* (San Francisco, Jossey Bass Publishers) states:

> *My job as teacher is to empower my students, to demystify a subject for them, and so to give up my power over them. If I am doing my job, by the end of the semester my students are independent of me. I strive every semester to give my students power, even though when I succeed I inevitably disempower myself. I hate that feeling of powerlessness at the end of the semester. And I love it.*

The old paradigms for teaching—teachers talk, students listen; teachers teach, students learn—have been pretty much repudiated. The effective teacher seeks out techniques and methodologies that provide the students opportunities to incorporate new information into their own body of knowledge,

to make it their own. Often, this involves presenting what something is and what it is not. It means using audiovisual materials, other illustrative material, demonstrations, and outside resources, such as (in transcription) visiting physicians, lab technicians, nurses, radiology technicians, practicing transcriptionists and supervisors, and maybe even a patient or two. However, effective lectures

Jack Cullen, master teacher of salesmanship, was my boss at New York Life Insurance Company in San Francisco. This was my first job in the real world after earning a college degree in psychology. Jack felt that I had natural sales ability and could sell, of all things, life insurance. He had trained some of the most successful life insurance agents in the United States. Having not had even one business course in college, I was ready to learn from him.

He taught me three secrets of success, which formed the cornerstone of my career, although I successfully sold life insurance for only a few years. His lessons were so simple they sounded trite, but they were true, and once mastered and applied, will work for anyone with normal intelligence. Let me share them.

1. "Successful people routinely do those things that failures find difficult or unpleasant to do." Jack would elaborate on how specific successful people precisely applied this truism and contrast it with the inaction of those who were not successful. I soon learned this lesson and got all of the necessary but unpleasant tasks accomplished early in the day, and still do. When I founded Dictation West, I repeatedly practiced this when I had to do everything myself, no matter how unpleasant. This ran the gamut from keeping the books to cleaning toilets in the rest room.

2. "Develop tunnel vision." Jack explained that this meant finding a profitable pursuit which no one else was doing or doing well, and doing it over and over until you could do it better than anyone else. Once mastered, "do not be distracted by other pursuits" and "spread yourself too thin," he cautioned. "Keep tunnel vision and your eye on your goal." "Don't let other people distract you; keep doing more of what you do best."

I found my vision at the end of the tunnel in 1970 when we introduced the idea of totally outservicing medical transcription for hospitals. No one else was doing this at the time, and we did it very well. Every time we deviated from doing what we did best, our profitability suffered.

3. "He who travels alone goes further and faster than those in groups with baggage." Jack used this metaphor to illustrate the importance of pursuing your goals yourself, simply, economically, without the baggage of partners, marital problems, emotional involvements, and financial dependence on others. Only in this manner can you do exactly what you know you must do to achieve your goals.

As the sole stockholder of my business, I could act quickly and seize an opportunity without consulting partners, officers, or others. If successful, I reaped the rewards. If something went sour, it was unnecessary to have to explain my mistake to a partner, banker, or investors.

Bob Seale

While Jack Cullen lacked a college degree and a teaching credential, he had an extraordinary gift for teaching common sense and the practical application of simple truths to achieve success in business. His lessons worked for others as well, but abundantly so for me. I shall remain forever grateful, and in his debt.

should not be abandoned as outdated nor avoided because of preoccupation with technology and gadgetry.

Successful teachers may try a variety of strategies before hitting on the one that a particular student can embrace. Studies have shown that 20% of students learn by hearing, 40% by seeing, and 40% by doing. For many, there is no doubt a combination of these strategies is needed; one technique may be effective for concepts, another for learning facts, and another for applied skills. Strategies that work for some subjects, some students, some age groups may not work for other subjects, other students, or other age groups. Strategies that work one semester for a subject may not work the next semester. The master teacher collects a treasure chest full of successful strategies; when one doesn't work, out comes another from the treasure chest.

Master teachers are unconventional, daring, unafraid of criticism. Sue Turley tells of a teacher who gave a GI lecture seated on a commode she had brought to the classroom. Demonstration and hands-on learning are routine for the master teacher's classroom. Students teach in the master's classroom, not to relieve the paid instructor from teaching duties but as an effective learning tool. Individual and group presentations, peer tutoring, written and oral exercises, and frequent student feedback on teaching effectiveness encourage student interaction and involvement.

Master teachers are a master of the mundane as much as they are the extraordinary. They are organized, efficient, astute. They know how to set priorities and how to discard the detritus that clutters lives, offices, and classrooms if not rigorously guarded against. With practiced discipline, they keep up with the latest in their field, plan effective and interesting classroom lectures and activities, and return students' work and tests quickly. (This can be a real challenge in medical transcription.)

Master teachers always have a syllabus, rarely or never give pop quizzes (often providing a pretest or practice test for major exams), and diligently present, through lecture, assignments, or by other methods, the content material needed to pass. After each test, they analyze the questions. Were they well written? Was the material covered by assignments or lecture? How many students missed the question? They throw out a question or curve the grades if analysis proves the question unfair. Then, they revise the test for the next time.

Master teachers are very demanding of themselves and no less demanding of their students. They expect much of students and set exacting standards. Their own practices and habits and those required of students reflect an unwavering commitment to excellence (a vital trait in medical transcription).

To become a master teacher, we must be interactive at all levels—in the community, in the classroom, and in students' lives. While master teachers manifest authority, they are not authoritarian.

My ninth grade English teacher, Sister Agnes Virginia, gave me an F on my first essay, when I had never had an English grade below 90. I was devastated, but she explained that grades are not the key to learning. She taught me, in a caring way, how to think and how to welcome failure not as an obstacle but as a stepping stone to success, the door to opportunity. I have never forgotten her. Her lesson has helped me often over the years to accept failure as a door, not a wall, and to see the hidden opportunity behind every setback.

Marilyn Craddock

Whenever I lecture or teach or write, I am influenced by two men I met in the turbulent late ’50s and ’60s when I was working full-time and going to school at night. They encouraged me to continue studying. Professor Joseph Ink (Jose Tinto he would sometimes call himself) was at Cleveland State University, and Professor Maciuszko was working on a doctorate while employed at the Cleveland Public Library, Foreign Literature Department.

Professor Ink loved Mozart and his dog Penny probably most of all, but he was an enthusiastic Anglophile and a specialist in British India (pronounced Indzha!). His lectures were wonderful stories about English history and complemented the readings. He was exciting and energetic and would say, “You are here to think.” When the department had a political upheaval, he stood by me. He got me a teaching assistantship. He was colorful and smart and a natural-born thespian. He taught me how to research and to love England, and on my travels there I think of him. He encouraged me to study for a doctorate and wrote all the letters and did the recommendations. I always feel I failed him because I never completed the dissertation. I miss him very much. He passed away a few years ago.

Professor Maciuszko taught Polish History and Literature and inspired me to learn the Polish language, also at Case Western. It was he who arranged for me to go to Poland in 1970 to study at the Jagellonian University. He is indefatigable and is a prolific writer and lecturer, much honored by Polonia here in America and internationally. As a teacher, he quite literally sets a room aglow. His Polish is rapturous and cultured; his English is indeed the same. He writes and speaks both with equal facility.

He taught me pride in my heritage, and through him I found my relatives in Poland. He is the most elegant, brilliant individual I have ever met and quite the nicest. Because of him, I made my academic debut as a speaker at the St. Francis Hotel in San Francisco at the Polish-American Historical Association. He lives in Berea, Ohio, and still writes and lectures.

Judith Marshall

While nurturing discipline and demanding respect, they are not a stickler for rules for the rule’s sake. Unbending, arbitrary, rigid adherence to rules never belongs in the master teacher’s classroom. They’re always aware of what’s going on in class—if there’s tension, if students are having difficulties.

During transcription lab, master teachers roam the room, peeking over students’ shoulders, giving encouraging pats or an occasional shoulder massage, praising good work. They encourage laughter and fun and are not afraid of controlled noise. Laughing in delight after tedious searching for a difficult word, clapping hands when finally understanding a garbled dictation, and the noise of students helping one another (“Will someone listen for me?” “I can’t find ‘tysis’ anywhere!” “My screen just went blank!”) characterize a master teacher’s transcription class. The master teacher encourages questions with patient, careful answers, and by frequently drawing out even the most reticent student. (“The only dumb question is the one never asked!”)

A master teacher’s classroom walls are covered with relevant, interesting posters, the class library’s shelves are filled with nonfiction and fiction books to stimulate interest in medicine and transcription, and a continually growing file of pertinent magazine articles, especially from professional and medical journals, is maintained.

In recent times, one of the best conferences I attended was a five-day conference called the "Great Teacher Seminar" in Salado, Texas. Salado is an old stagecoach inn in a small community in the hill country outside Austin. Traditionally, the inn is known for its great food and beautiful location. However, August in Texas is not known for outdoor activities. Fortunately, I received instructions to come dressed in informal attire. The whole atmosphere was relaxed. Our leader wore rubber slides, T-shirt, and shorts. Although some of us were from the same college and knew fellow instructors, there were instructors from other colleges we did not know. We were assigned a partner not known to us and given 20 minutes in two-person groups outdoors to get to know one another. When we reconvened into the large group, we had to introduce our partners without mentioning anything about their teaching or even their discipline. Right away, we discovered we were among some very interesting people, well-rounded, with other interests besides teaching.

Maybe I remember this conference most because of a real personal conversion of my own. One night after an outdoor barbecue, wading barefoot in the cold spring, and walking around the area, we played a game in which everyone stood in the middle. A premise was given about teaching, such as "Can developmental studies prepare students for college courses?" Everyone started in the middle. Those who "Believe Strongly" went to the right side of the building, those who only "Agree," halfway between middle and right; "Neutral" stayed in the middle, "Disagree" stood halfway between the middle and the left, and "Strongly Disagree" stood on the left.

Every member of the group (from where they stood) would tell why they felt the way they did and try to convince the others to come over to their side. This was not an innocuous game! I teach at a community college with an open-door policy, but this game was based only on how we felt. Having developmental students in my program and in the nursing program had usually not proved successful. I was in the "Strongly Disagree" group. I think I always wanted to believe this, but didn't really. My peers, many of whom were in developmental studies, with the arguments and enthusiasm to just give that student to them, convinced me to switch sides. It was a major switch of belief for me and one I am at long last able to say I do believe.

This was further reinforced the next day when (I don't think accidentally) the person filming the large group sessions was placed in my small group. She told me she was indeed a developmental student graduate. She had always had trouble with school, did not graduate, and got a job putting together computer boards, which, according to her, was a boring job that paid well. She felt she had no other choice since she had to support herself. She injured her hand and could no longer do this job. After months of depression following the accident, her roommate persuaded her to go to the community college, get her GED, and go through the developmental courses. They discovered in the testing that she had a learning disability—dyslexia.

She completed the developmental studies with lots of hard work on her part, took the college courses, which were not easy according to her. She did graduate with an A.A. degree and obtained a job in the media department, which allowed her creativity to come into play. She stated she now loved going to work, which was a real switch for her. According to the instructors from that college, she was outstanding, always suggesting better ways to film a project, seemed to know all the right angles to make subjects look their best, and edited projects until they looked professional. "A wasted mind is a terrible thing." That experience, with master teachers from all over—including the developmental student graduate—taught me, under the guise of a game, a lesson I'll never forget.

Janet Stiles

On the other hand, silence is okay, too. Silence provides an opportunity for meditation and rumination, for absorbing difficult concepts. The master teacher tries diligently to create a nonthreatening learning environment, one in which a student feels comfortable admitting to a lack of knowledge or even occasionally failing a quiz or producing a less than perfect transcript. If the teacher is comfortable saying, "I don't know the answer to that question, but I'll find out," the students realize that sometimes it's okay to not know an answer and they see the importance of continuing education and ferreting out answers.

A master teacher knows to wait patiently for an answer to a complex question, though it may be long in coming. Sometimes, rewording the question or breaking it down into less complex components may be necessary. That, too, is a learning experience for teacher and student. Thoughtful responses from students are encouraged in such an environment, and the teacher should be equally thoughtful in answering questions. "Would you [the student] research that topic and share your findings with the class?" may be more educational than a facile answer.

Master teachers are good communicators (or at least they try to be). They know that students teach the instructors as well—what they're not saying, what they need to say, and how to improve in that process. They are good listeners, listening to students with a human ear. Master teachers are interested enough in students to find out what is going on in their lives that may be affecting their performances in class. This is the kind of compassion and empathy master teachers have for their students.

Furthermore, they treat students with the same respect and courtesy with which they expect to be treated. Master teachers try to be tactful, never demeaning or belittling. Janet Stiles tells a story about one of her students:

> *One student was consistently five to ten minutes late. During a private session, she told me she was a single mother. She awoke at 4 a.m. to feed her two-month-old baby, bathe him and get dressed herself; take the baby to the baby sitter; transfer to two buses; and get to class. The bus schedules were her problem. Naturally, she was given this concession. She was never the best student but she was always there. She graduated and was hired by a physician's office near her home.*

Master teachers are advocates for students. They see potential in all students, not just the "cream of the crop," and encourage students to live up to their full potential. They do this by helping students to establish goals just beyond their reach, teaching them to take pride in all that they do accomplish. They teach students how to evaluate themselves better, acknowledging each small step toward success rather than agonizing over a failure to reach some larger goal. They encourage competition, not one student with another but each student with her or his own past performance. They help students see that there is always someone prettier, richer, smarter to cause one to lose heart, and there is always someone plainer, poorer, and less smart to give one unfounded confidence.

Finally, for master teachers, teaching is a priority, a passion. No matter how long they've been teaching, master teachers are still enthusiastic because each new wave of students is a group of people who have never heard what they have to teach, for whom they will need to develop new approaches or refine or modify old techniques. They are excited because they are still passionate about their subject. Their enthusiasm gives them energy, and they have a healthy pride in doing their job well. They are patient and never dogmatic.

While I've had a few truly wonderful teachers, the best teacher I ever had was in graduate school (a seminary). Richard Pratt was young (to me), at first seemed a little cocky and even superficial, and a little outlandish in his behavior. The first day of class, prior to any lecture, he began by asking questions, calling on students who had him before for other classes. Each correct answer resulted in a miniature Hershey's candy bar flying across the room to the one with the correct answer. ("This is seminary?" I thought.) The candy continued to fly for a week or more as he continued to ask questions—now including the new students—often asking questions he had asked before.

As the semester wore on, I learned as much about teaching as I did about the content of the course I was taking. I became an intent observer of his techniques. What I had thought to be cockiness was a refreshing honesty and boldness. He was so frank about his shortcomings, so willing to admit that he didn't have all the answers, and so ready to acknowledge insights the students had, he seemed genuinely humble. Richard (he was a Ph.D. but insisted we call him Richard) managed to be self-deprecating without being self-demeaning. Nor did he ever demean students; he handled differences of opinion (and there were many in the subject we were studying!) with tact, grace, and good humor.

Clearly he loved his subject, he loved the students, and he was devoted to teaching. His teaching style was predominantly interactive, and he demanded (and got) the full participation of every student. Although we had a class of over 60 students, he quickly learned everyone's name. He needed to know names because he called on every student often. If a student hesitated to answer when asked a question, this teacher would encourage the students nearby to "whisper" the answer to him, so the student could answer out loud. The next day, he would ask the same student the same question again. Of course he now knew the answer, and so did everyone else who had not known before. He managed to do this so that it wasn't embarrassing, and it was one of the most effective learning techniques I've ever seen. (How often do we as teachers ask a question once, get an answer, and then assume that everyone in class knows the answer because one person did?)

The door to Richard's office was always open; he always spoke when he passed and would often stop and chat. He was never in a hurry to leave after class and would answer individual questions until they stopped coming. Richard was concerned about our personal lives, too, and would give thoughtful, discerning advice if we asked for it. What I learned about teaching from him would fill a small book, and I'll never forget Richard Pratt.

Ellen Drake

Master teachers of medical transcription stay in touch with the profession, either through part-time transcription or networking with practicing transcriptionists. They share their real-life experiences with their students, relating them to the subject matter being studied. Master teachers keep an open mind, seeking out people who challenge them intellectually, who stimulate them to think, who challenge their beliefs. They read voraciously both in their specialty and outside it.

Master teachers leave a lasting impression on their students, as seen in the vignettes accompanying this article. Is it impossible to become a master teacher? No more than it is to become a master transcriptionist. Is it easy? No. Indeed, it's hard work. All teachers who love teaching and love their subject aspire to be master teachers—some even succeed.