

Medical Terminology Made Easy

Prospectus for the Capstone Project
to be submitted to National University
in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE IN EDUCATIONAL AND INSTRUCTIONAL TECHNOLOGY

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Introduction

This project will be part of a blended learning Medical Terminology class for high school junior and senior students. Synchronous learning will occur in a traditional classroom setting complemented with asynchronous lessons in an online environment. Digital content will help solidify concepts from the classroom as well as help students define and demonstrate the importance of the practical application of medical terminology. Medical Terminology Made Easy will be delivered through a course management system called Moodle and will offer hands-on learning in basic word structure, terms pertaining to the body as a whole, and prefixes, and suffixes utilized daily in medicine. Establishing a solid foundation of medical terminology will prepare the students for body system based learning as well as enable them to appreciate the need for rapid translation between “regular” English and medical terminology. This language of medicine not only prepares a healthcare worker, but also enables the novice to be a practical and informed consumer of medicine.

Educational/Instructional Need

- **Educational Requirement**

This class meets the Arizona K-12 lab science requirements for graduation, a lab science credit for college/university entrance, as well as a Health Information Technology prerequisite for community college programs such as nursing and other healthcare fields. Completion of this class at an 80% or higher is mandatory for any student wishing to intern in a healthcare facility during their senior year.

- **Preliminary Extant Data Analysis**

Although Neville and Migley (2008) provide tips for using medical terminology, these ancillary materials do not offer any learning modules that require application or synthesis of material. These are often drill-type modules and rarely reference any medical terminology.

Similar ancillary materials include:

- Elsevier Evolve web site that accompanies the Language of Medicine text utilized in this class. This site provides sample practice tests and diagram labeling activities as well as presentations and hands-on materials such as crossword puzzles and sample tests.
- Quizlet.com offers electronic flash cards delineated by chapters.
- Online medical dictionaries simply restate what is already present in the textbook.
- The medical terminology site located at http://msjensen.cehd.umn.edu/1135/med_term_activites/default.html offers worksheet-based drill-type activities.
- The United States government provides for a very simple medical terminology lesson at <http://www.nlm.nih.gov/medlineplus/medicalwords.html>.
- YouTube.com provides for numerous medicine-based videos.
- The Biology Corner is a web site for referencing basic biological, anatomy and physiology principles. Although many of the sites are beneficial for anatomy, they lack higher order medical terminology use.

Currently, there are no sites available for a medical terminology student to enable them to apply and synthesize their growing vocabulary of medical terminology. This project will enable students to:

- Practice the material learned in class.
- Apply their knowledge via various hands-on learning simulations.
- Collaborate with other students on discussion boards regarding practical application of the medical terminology.
- Analyze medical situations and translate medical terminology in layman's terms.
- Collect and share many Web 2.0 established learning tools.

Goal

The goal of this project is to provide additional practice and hands-on skills as the students build their vocabulary base for medical terminology. As indicated by numerous scholarly articles, healthcare workers commonly use *and* misuse medical terminology. It is a universal language that extends beyond cultural and geographical boundaries. However, the proper use of medical terminology is vital to both the consumer and healthcare worker. Dahm (2011) identifies the gap between the scholarly use of medical terminology and patient care. Koch-Weser, DeJong, and Rudd (2009) indicate the need for proper medical terminology in clinical situations. The medical researcher and novice medical consumer also need to take into consideration proper use of medical terminology to ensure proper results and information

retrieval, as indicated by both Stevenson, Agirre, and Soroa (2012) and Webster, Cross, Mitchell, and Craig, (2010).

Audience

The target audience is comprised of high school juniors and seniors, aged sixteen to eighteen, and enrolled in a dual credit college class. These students have chosen to take the class as an elective and/or have indicated a desire to be in the healthcare field. Historically, the female to male ratio is 3:1 and the Junior to Senior level ratio is 20:1.

Schedule

Milestone	Target Completion Date	Status/Comments
Planning document report	August 5, 201X	
Completed Literature Review	August 12, 201X	
Working prototype of project	August 19, 201X	
Aesthetic, usability, and content testing	August 26, 201X	
Final draft and written review of report	September 2, 201X	
Completed project and report	September 9, 201X	

References

- Dahm, M. R. (2011). Exploring Perception and Use of Everyday Language and Medical Terminology among International Medical Graduates in a Medical ESP Course in Australia. *English For Specific Purposes*, 30(3), 186-197.
- Koch-Weser, S., DeJong, W., & Rudd, R. E. (2009). Medical word use in clinical encounters. *Health Expectations*, 12(4), 371-382. doi:10.1111/j.1369-7625.2009.00555.x
- Neville, L., & Migley, R. (2008). Tips for learning part 2: medical terminology. *British Journal Of Healthcare Assistants*, 2(6), 297-300.
- Stevenson, M., Agirre, E., & Soroa, A. (2012). Exploiting domain information for Word Sense Disambiguation of medical documents. *Journal Of The American Medical Informatics Association: JAMIA*, 19(2), 235-240
- Webster, A. C., Cross, N. B., Mitchell, R., & Craig, J. C. (2010). How to get the most from the medical literature: Searching the medical literature effectively. *Nephrology*, 15(1), 12-19. doi:10.1111/j.1440-1797.2009.01263.x