

COURSE CONTENT GUIDE
UNIVERSITY OF ALASKA ANCHORAGE
COMMUNITY AND TECHNICAL COLLEGE

Department: PER

Date: September 10, 2004

Course Number: PE A116
Course Title: Aerobic Walking
Credits: 1

I. Course Description:

Introduces key concepts associated with lifetime fitness. Presents the concepts and technical skills to set up and participate in a regular aerobic walking program.

II. Course Design:

- A. Designed for individuals interested in learning how to participate in a safe and effective exercise program.
- B. One credit
- C. Total time of student involvement: 45 hours
 - 1) Lecture: 7.5 hours
 - 2) Lab: 15 hours
 - 3) Outside: 22.5 hours
- D. Status of course relative to degree or certificate program: N/A
- E. Fees: Facility rental fees.
- F. May be scheduled in any time frame, but not less than one week.
- G. This is a new course.
- H. Military Programs, Mat-Su, Kenai Peninsula, Kodiak, and UAA List Serv.
- I. Course level justification: Introduces a field of knowledge and develops basic skills.

III. Course Activities:

Includes lecture, discussions, group exercises, self-evaluation techniques, and hands-on skill development.

IV. Course Prerequisites:

None

V. Course Evaluation:

Grades will be A-F based on written/oral examinations, written assignments, skill proficiency, class attendance and participation.

VI. Course Curriculum:

- 1.0 Course Introduction
 - 1.1 Class safety
 - 1.2 Campus safety
- 2.0 Walking Fundamentals
 - 2.1 Selecting walking apparel & footwear
 - 2.2 Selecting walking sites
 - 2.3 Form and technique
 - 2.3.1 Posture
 - 2.3.2 Foot position
 - 2.4 Walking anatomy
 - 2.4.1 Musculature
 - 2.4.2 Joint movements
 - 2.5 Applying basic exercise principles
 - 2.5.1 Warm-up and cool-down
 - 2.5.2 Heart rate and workload
 - 2.5.3 Specificity, overload, and progression
 - 2.5.4 Rest and recovery
 - 2.6 Training variables
 - 2.6.1 Speed
 - 2.6.2 Resistance
 - 2.7 Injury prevention
 - 2.8 Proper hydration
- 3.0 Benefits of Walking
 - 3.1 Cardiorespiratory fitness
 - 3.2 Muscular strength and endurance
 - 3.3 Flexibility
 - 3.4 Body composition
 - 3.4.1 Caloric intake and expenditure
 - 3.4.2 Weight Control
 - 3.5 Stress
 - 3.6 Social aspects
- 4.0 Exercise Goal Setting
 - 4.1 Setting specific, realistic, measurable goals
 - 4.2 Motivation
 - 4.3 Long term goal setting for lifetime fitness
- 5.0 Apply Conceptual Information in an Activity Setting
 - 5.1 Designing a regular walking program
 - 5.2 Race/power walking
 - 5.3 Walking programs and activities

VII. Suggested Textbook:

The Cooper Institute. (2001). The Walking Handbook, (2nd edition). Dallas, Texas: The Cooper Institute.

VIII. Bibliography:

- Alters, S. and Schiff, W. (2001). Essential Concepts for Healthy Living, (2nd edition). Sudbury, MA: Jones & Bartlett Publishers.
- Corbin, C., Lindsey, R. and Welk, G. (2003). Concepts of Fitness and Wellness, (4th edition). Boston, MA: McGraw-Hill Publishing.
- Fahey, T., Insel, P. and Roth, W. (2001). Fit & Well, (4th edition). Mountain View, CA: Mayfield Publishing Company.
- Fenton, M. (2001). Complete Guide to Walking for Health, Fitness and Weight Loss. Springfield, TN: Globe Pequot Press.
- Seiger, L. and Hesson, J. (2001). Walking for Fitness. Boston, MA: McGraw-Hill Publishing.
- Spilner, M. (2000). Prevention's Complete Book of Walking: Everything You Need to Know to Walk Your Way to Better Health. Emmaus, PA: Rodale Press.

XI. Instructional Goals, Student Outcomes, and Assessment Procedures

Instructional Goals:

Introduces the correct aerobic walking form and techniques as well as the exercise principles, training variables, and injury prevention measures associated with aerobic walking.

Student Outcomes	Assessment Procedures
After successful completion of the course, the student will be able to:	
Identify appropriate aerobic walking apparel and sites.	Discussion
Demonstrate the proper aerobic walking form and technique.	Skill demonstration Exercise journal
Describe the muscular and joint movements associated with correct aerobic walking form and technique.	Written examination
Apply basic exercise principles and training variables.	Skill demonstration Exercise journal Written examination
Identify basic injury prevention measures associated with aerobic walking.	Discussion Skill demonstration
Explain the various benefits of aerobic walking.	Discussion Written examination
Write specific, realistic, measurable goals.	Written assignment
Describe various types of aerobic walking programs and activities.	Discussion
Plan an aerobic walking program for long-term participation.	Written assignment

COURSE CONTENT GUIDE
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COMMUNITY AND TECHNICAL COLLEGE

Department: PER

Date: September 10, 2004

Course Number: PE A150
Course Title: Wellness for Women
Credits: 3

I. Course Description:

Introduces basic concepts of wellness including theories and definitions of optimal health. Includes topics such as substance abuse, sexually transmitted diseases, fitness, nutrition, mental health, cardiovascular disease, sexuality, and other significant health issues, with particular emphasis on the needs and concerns of women.

Special Note: Students will apply concepts through physical activities outside of class time.

II. Course Design:

- A. Designed for individuals interested in learning about women's health and wellness issues.
- B. Three credits
- C. Total time of student involvement: 180 hours
 - 1) Lecture: 45 hours
 - 2) Outside: 135 hours
- D. Status of course relative to degree or certificate program: N/A
- E. Fees: None
- F. May be scheduled in any time frame, but not less than three weeks.
- G. This is a new course.
- H. Military Programs, Mat-Su, Kenai Peninsula, Kodiak, Health Sciences, Sociology and UAA List Serv.
- I. Course level justification: Introduces a field of knowledge and develops basic skills.

III. Course Activities:

Includes lecture, discussions, group exercises, self-evaluation techniques, and hands-on skill development.

IV. Course Prerequisites:

None

V. Course Evaluation:

Grades will be A-F based on all assignments

VI. Course Curriculum:

- 1.0 Course Introduction
 - 1.1 Class safety
 - 1.2 Campus safety

- 2.0 Dimensions of Health and Wellness
 - 2.1 Physical
 - 2.2 Emotional
 - 2.3 Intellectual
 - 2.4 Social
 - 2.5 Spiritual

- 3.0 Women and Exercise
 - 3.1 Preparing for Physical Activity
 - 3.2 Developing a Personal Program
 - 3.2.1 Fitness assessment
 - 3.2.2 Goal-setting
 - 3.2.3 Health related fitness components
 - 3.2.3.1 Cardiovascular endurance
 - 3.2.3.2 Muscular strength
 - 3.2.3.3 Muscular endurance
 - 3.2.3.4 Flexibility
 - 3.2.3.5 Body composition
 - 3.2.4 Monitoring progress and staying motivated

- 4.0 Women and Nutrition
 - 4.1 Basic Nutrition Principles
 - 4.2 Nutrition Guidelines and Planning a Balanced Diet
 - 4.2.1 Variances with age and activity level
 - 4.2.2 Pregnancy and breastfeeding
 - 4.3 Weight Management

- 5.0 Women and Stress
 - 5.1 Stressors
 - 5.2 Coping Strategies

- 6.0 Women, Relationships and Sexuality
 - 6.1 Developing Healthy Relationships
 - 6.2 Communication
 - 6.3 Sexual Behaviors

- 7.0 Fertility, Reproduction and Child-Bearing
 - 7.1 Deciding Whether to Have Children

- 7.1.1 Birth control
- 7.1.2 Unplanned pregnancies
- 7.1.3 Assisted reproductive technologies
- 7.1.4 Adoption
- 7.2 Reproductive Anatomy and the Menstrual Cycle
- 7.3 Child-Bearing
 - 7.3.1 Pregnancy
 - 7.3.2 Childbirth
 - 7.3.3 Postpartum
 - 7.3.4 Child-bearing loss

- 8.0 Women and Substance use and Abuse
 - 8.1 Tobacco
 - 8.2 Alcohol
 - 8.3 Other Drugs
 - 8.3.1 Illegal
 - 8.3.2 Prescription and over-the-counter

- 9.0 Women and Disease Prevention
 - 9.1 Cardiovascular disease
 - 9.2 Cancers
 - 9.3 Osteoporosis
 - 9.4 Diabetes
 - 9.5 Sexually Transmitted Diseases
 - 9.6 Other Infectious Diseases
 - 9.7 Disease Risk Assessment

- 10.0 Health Care for Women
 - 10.1 Select Medical Practices, Problems, and Procedures
 - 10.2 Politics and Healthcare

- 11.0 Women and Aging
 - 11.1 The Changing Body
 - 11.2 Menopause
 - 11.3 Relationship Changes
 - 11.4 Common Health Concerns
 - 11.5 Economics of Aging

VII. Suggested Textbook:

The Boston Women's Health Book Collective. (1998). Our Bodies, Ourselves for the New Century. New York, NY: Simon & Schuster.

VIII. Bibliography:

Alters, S. and Schiff, W. (2001). Essential Concepts for Healthy Living (2nd edition).

- Sudbury, MA: Jones & Bartlett Publishers.
- Anatomical Chart Company. (2002). Women's Health and Wellness: An Illustrated Guide. Lippincott Williams & Wilkins.
- Callahan, L. (2002). The Fitness Factor: Every Woman's Key to a Lifetime of Health and Wellness. Boston, MA: The Lyons Press
- Coyle, J., editor. (2001). Handbook on Women and Aging. Westport, CN: Greenwood Publishing Group, Inc.
- Edlin, G., Golanty, E. and Brown K. (2000). Essentials for Health and Wellness (2nd edition). Sudbury, MA: Jones & Bartlett Publishers.
- Fahey, T., Insel, P. and Roth, W. (2001). Fit & Well (4th edition). Mountain View, CA: Mayfield Publishing Company.
- Garrett, W. (2001). Women's Health in Sports and Exercise. Rosemont, IL: American Academy of Orthopaedic Surgeons.
- Hoeger, W. and Hoeger, S. (1999). Principles and Labs for Physical Fitness (2nd edition). Englewood, CO: Morton Publishing Company.
- Judelson, D and Dell, D. (2000). Women's Complete Wellness Book: American Women's Medical Association. New York, NY: St. Martin's Press
- Nygaard, B. and Murtiashaw, K. (2000). Making the Fitness Connection. Dubuque, IA: Kendall/Hunt Publishing Company.

XI. Instructional Goals, Student Outcomes, and Assessment Procedures

Instructional Goals:

Introduces basic concepts of health and wellness including the components of health and wellness and definitions and theories of optimal health; presents various health and wellness topics with particular emphasis on the needs and concerns of women.

Student Outcomes	Assessment Procedures
After successful completion of the course, the student will be able to:	
Define the dimensions of health and wellness.	Discussion Written exam
Discuss the interrelatedness of the components and the role each plays in overall well-being.	Discussion Health journal
Describe and implement proper exercise precautions.	Discussion Health journal
Demonstrate methods for evaluating their own fitness level.	Demonstration Written assignment
Develop and demonstrate a personal activity program including goals and plans for monitoring progress.	Written assignment Health journal Physical activities outside of class
Explain basic nutrition principles.	Discussion Written exam
Outline a balanced diet utilizing standard nutritional guidelines	Health journal

based on their current status and goals.	
Identify common stressors and describe how to implement coping strategies.	Health journal
Identify characteristics of healthy relationships, healthy forms of sexual expression, and effective means of communication.	Discussion Written assignment Health journal
Discuss common issues related to fertility, reproduction, and child-bearing including infertility, birth-control, pregnancy termination, adoption, and miscarriage.	Discussion
Give examples of methods of birth control, options for unplanned pregnancies, and assisted reproductive technologies.	Discussion Written exam
Describe the physiological, psychological, and social effects of substance use and abuse.	Discussion Written exam Health journal
Describe the characteristics of cardiovascular disease, cancer, osteoporosis, diabetes, and other infectious diseases.	Written exam
Identify personal behaviors and other factors associated with disease prevention.	Discussion Health journal
Discuss select medical practices, problems, and procedures and the political conditions that may affect them.	Discussion
Give examples of the physical changes the female body exhibits as it ages.	Written exam Written assignment
Discuss common concerns of aging women including menopause, relationship changes, health concerns, and economics.	Discussion Health journal

MEDICAL LABORATORY TECHNOLOGY
*Allied Health Sciences Building (AHS) Room 155, (907)
786-6928, <http://alliedhealth.uaa.alaska.edu/medlabtech/>*

The Medical Laboratory Technology Department has a strong commitment to the career ladder approach to higher education. With Career Ladder programs, the students enrolled in the Bachelor of Science in Medical Technology have an option to gain Phlebotomy certification in one year and Medical Laboratory Technician certification in two years as they pursue a bachelor's degree. The AAS graduates who wish to obtain a bachelor's degree in Medical Technology may "career ladder" without loss of credit.

General Admission Requirements for all students entering programs offered by the Medical Laboratory Technology Department include:

1. Complete the Medical Laboratory Technology program application.
2. Review the Essential Requirements for Admission and return the signed form to the department.
3. High School diploma or GED equivalency.
4. Prior to enrollment in either MEDT A101 or MEDT A132, students must provide documentation of the following:
 - Immunity to rubella, rubeola and chicken pox confirmed by titer.
 - Immunity to Hepatitis A and Hepatitis B. Students must have started the immunization series prior to enrolling in the courses.
 - Diphtheria/tetanus vaccination within the past ten years.
 - Freedom from active tuberculosis, documented annually by negative PPD skin test or by health exam by a nurse practitioner, physician or physician's assistant.
5. Prior to enrolling in a practicum (MEDT A195A, MEDT A195B, MEDT A295 or MEDT A495) students must
 - Demonstrate computer competency in the prerequisite MEDT courses.
 - Provide documentation of a non-FBI criminal background check within six months prior to start of practicum.
 - Provide proof of personal medical insurance coverage.

Additional admission requirements are listed under program descriptions.

The Medical Laboratory Technology Department assumes no responsibility for illness or injuries experienced by students in conjunction with student labs. It is strongly recommended that students maintain personal medical insurance while enrolled in any of the

programs offered by the Medical Laboratory Technology Department. Students enrolled in practicum (MEDT A195A, MEDT A195B, MEDT A295 or MEDT A495) must provide their own transportation to the clinical facility. Personal protective equipment is provided by the training facility. The clinical facilities require proof of medical insurance coverage; therefore, students are required to maintain personal medical insurance while enrolled in practicum courses. Medical insurance is available through the Student Health Center. Liability insurance is purchased by the Medical Laboratory Technology Department to cover the student's practicum. The nontranscribed departmental certificates, AAS and BS degrees are not contingent upon the students passing any type of external certification or licensure examination.

The AAS in Medical Laboratory Technology and the BS in Medical Technology Programs are accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 W. Bryn Mawr Avenue, Suite 670, Chicago, IL, 60631-3415. NAACLS is recognized by the United States Department of Education and by the Council for Higher Education.

**NONTRANSCRIPTED DEPARTMENTAL
CERTIFICATE OF COMPLETION, PHLEBOTOMIST**

Phlebotomist

Phlebotomists obtain blood and other samples for laboratory testing. They establish professional relationships with their patients, collect and prepare specimens, maintain collection areas and equipment and perform record keeping duties. Students are eligible to sit for national certification exams in phlebotomy after completion of the nontranscribed certificate program.

Students must complete the following courses:

MEDT A101	Phlebotomy Procedures	3
MEDT A195A	Phlebotomy Practicum	3

**NONTRANSCRIPTED DEPARTMENTAL
CERTIFICATE OF COMPLETION, CLINICAL
ASSISTANT**

Clinical Assistant

Clinical assistants perform basic laboratory testing in medical laboratories, working under the supervision of a medical technologist, medical laboratory technician or pathologist. A clinical assistant collects and processes blood specimens and performs test procedures in chemistry, hematology, microbiology and urinalysis. A clinical assistant is competent in the following:

- Demonstrating knowledge of infection control and safety practices.
- Using common medical terminology.
- Following standard operating procedures to collect specimens.
- Preparing blood and body fluid specimens for analysis according to standard operating procedures.
- Preparing/reconstituting reagents, standards and controls according to standard operating procedures.
- Performing appropriate tests at the clinical assistant level, according to standard operating procedures.
- Following established quality control protocols
- Communicating (verbally and nonverbally) effectively and appropriately in the workplace.
- Using information systems necessary to accomplish job functions.
- Identifying and reporting potential pre-analytical errors that may occur during specimen collection, labeling, transporting and processing.

The Clinical Assistant Certificate is only offered by distance delivery. Students must contact the Medical Laboratory Technology Department to arrange for a mentor and clinical training facility prior to enrolling in any of the courses.

Students must complete the following courses:

MEDT A101 Phlebotomy Procedures	3
MEDT A195A Phlebotomy Practicum	3
MEDT A102 Urinalysis for Clinical Assistants	2
MEDT A103 Hematology for Clinical Assistants	3
MEDT A104 Clinical Chemistry for Clinical Assistants	3
MEDT A105 Microbiology for Clinical Assistants	3
MEDT A195B Clinical Assistant Practicum	7

ASSOCIATE OF APPLIED SCIENCE, MEDICAL LABORATORY TECHNOLOGY

The mission of the Medical Laboratory Technology program is to graduate competent, ethical professionals with the knowledge and skills necessary for work as entry-level medical laboratory technicians. The registered medical laboratory technician (also known as a clinical laboratory technician) is an allied health professional who is qualified by academic and practical training to provide service in clinical laboratory science. The ability to relate to people, a capacity for calm and reasoned judgment, and a demonstration of commitment to the patient are essential qualities for medical laboratory technicians. The medical laboratory technician must demonstrate ethical and moral attitudes and principles, which are essential for gaining and maintaining the trust of professional associates, the support of the community, and the confidence of the patient and family. An attitude of respect for the patient

and confidentiality of the patient's record and/or diagnosis must be maintained. A medical laboratory technician is competent in the following:

- Performing analytical tests of body fluids, cells, and other substances.
- Performing preventive and corrective maintenance of equipment and instruments.
- Confirming abnormal results, performing and verifying quality control procedures.
- Exercising principles of safety.
- Demonstrating professional conduct and interpersonal skills with patients, laboratory personnel, other health care professionals, and the public.
- Establishing and maintaining continuing education as a function of growth and maintenance of professional competency.

Upon graduation and initial employment, the medical laboratory technician/clinical laboratory technician should be able to demonstrate entry-level competencies in the above areas of professional practice. Graduates are eligible to sit for national certification exams in medical laboratory technician/clinical laboratory technician after completing the program.

ADMISSION REQUIREMENTS

1. Complete the Associate Degree Programs Admission Requirements at the beginning of this chapter.
2. Complete the General Admissions requirements for all programs in the Medical Laboratory Technology Department that are listed at the beginning of this section.
3. Meet with the Medical Laboratory Technology Program advisor regarding application, program admission, and development of a program of study.

ACADEMIC PROGRESS

In order to progress within the Associate of Applied Science in Medical Laboratory Technology program, students must earn a satisfactory grade (C or higher or P) in all medical laboratory technology (MEDT) courses required for the degree and demonstrate professional behavior as defined by the "Medical Laboratory Technology Department Core Abilities" and associated behavior criteria. Satisfactory progress is demonstrated by exhibiting Developing Level Criteria by the end of the second year (assessed by core faculty), and Entry Level Criteria by the end of the Clinical Practicum (assessed by clinical instructors). Students must receive a score of "3" or higher on the Developing Level Criteria in order to progress in the program and a score of "3" or higher in the Entry Level Criteria to graduate from the program. Students who are unable to earn an acceptable grade in

the MEDT courses during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space available basis.

When the number of students admitted to the program exceeds the number that can be accommodated in the clinical practicum, students are placed on an “alternate list” and informed they can complete their practicum should space become available, or they are given preference for a subsequent semester. Students receive a letter stating they are an alternate; they sign and return the letter acknowledging alternate status.

GRADUATION REQUIREMENTS

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the Associate of Applied Sciences requirements at the beginning of this chapter (9 credits). In the Medical Laboratory Technology Program, the required support courses meet the General Requirements.

B. REQUIRED SUPPORT COURSES

Complete all 15 credits of support courses for the Medical Laboratory Technology major with a satisfactory grade (C or higher).

BIOL A111 Human Anatomy and Physiology I	4
BIOL A112 Human Anatomy and Physiology II	4
CHEM A103/L Survey of Chemistry	4
CHEM A104 Introduction to Organic Chemistry and Biochemistry	3

C. MAJOR REQUIREMENTS

1. MEDT courses (43 credits) Complete the following major courses with a satisfactory grade (C or higher or P).

MEDT A132 Introduction to Laboratory Medicine	3
MEDT A202 Clinical Chemistry	6
MEDT A203 Clinical Microbiology	6
MEDT A204 Hematology and Coagulation	6
MEDT A206 Immunology and Blood Banking	6
MEDT A208 Urine and Body Fluid Analysis	3
MEDT A250 Capstone Seminar	1
MEDT A295 Clinical Practicum	12

2. A total of 67 credits is required for the degree.

RECOMMENDED COURSE SEQUENCE

Each student’s course schedule sequence may vary according to required prerequisite courses.

First Year

Semester I

ENGL A111 Methods of Written Communication
Oral Communication Skills
BIOL A111 Anatomy and Physiology I
CHEM A103/L Survey of Chemistry/Lab

Semester II

ENGL A212 Technical Writing (recommended)
BIOL A112 Anatomy and Physiology II

CHEM A104 Introduction to Organic and Biochemistry
MEDT A132 Introduction to Laboratory Medicine

Second Year

Semester I

MEDT A203 Clinical Microbiology
MEDT A204 Hematology and Coagulation
MEDT A208 Urine and Body Fluid Analysis
MEDT A250 Capstone Seminar

Semester II

MEDT A202 Clinical Chemistry
MEDT A206 Immunology and Blood Banking

Summer

MEDT A295 Clinical Practicum

BACHELOR OF SCIENCE MEDICAL TECHNOLOGY

Medical Technologist

The mission of the Medical Technology program is to graduate competent, ethical professionals with the knowledge and the skills necessary for work as entry-level medical technologists. The registered medical technologist (also known as a clinical laboratory scientist) is an allied health professional who is qualified by academic and practical training to provide service in clinical laboratory science. The ability to relate to people, a capacity for calm and reasoned judgment, and a demonstration of commitment to the patient are essential qualities for a medical technologist. The medical technologist must demonstrate ethical and moral attitudes and principles, which are essential for gaining and maintaining the trust of professional associates, the support of the community, and the confidence of the patient and family. An attitude of respect for the patient and confidentiality of the patient’s record and/or diagnosis must be maintained. A medical technologist is competent in the following:

- Developing and establishing procedures for collecting, processing, and analyzing biological specimens and other substances.
- Performing analytical tests of body fluids, cells, and other substances.
- Integrating and relating data generated by various clinical laboratory departments while making decisions regarding possible discrepancies.
- Confirming abnormal results, performing and verifying quality control procedures, and developing solutions to problems concerning the generation of laboratory data.
- Making decisions in response to the results of quality control and quality assurance measures and instituting proper procedures to maintain accuracy and precision.

- Establishing and performing preventive and corrective maintenance of equipment and instruments, as well as identifying appropriate sources for repairs.
- Developing, evaluating and selecting new techniques, instruments and methods in terms of their usefulness and practicality within the context of a given laboratory's personnel, equipment and budgetary resources.
- Demonstrating professional conduct and interpersonal skills with patients, laboratory personnel, other health care professionals, and the public.
- Establishing and maintaining continuing education as a function of growth and maintenance of professional competency.
- Providing leadership in educating other health personnel and the community.
- Exercising principles of management, safety and supervision.
- Applying principles of educational methodology and principle of current information systems.

Upon graduation and initial employment, the medical technologist should be able to demonstrate entry-level competencies in the above areas of professional practice. Graduates are eligible to sit for national certification exams in medical technology/ clinical laboratory science after completion of the program.

BACHELOR OF SCIENCE, MEDICAL TECHNOLOGY

ADMISSION REQUIREMENTS

1. Complete the Baccalaureate Degree Programs Admission Requirements at the beginning of this chapter.
2. Complete the General Admission Requirements for all programs in the Medical Laboratory Technology Department that are listed at the beginning of this section.
3. Meet with the Medical Technology Program advisor regarding application, program admission, and development of a program of study.

ACADEMIC PROGRESS

In order to progress within the Bachelor of Science Medical Technology program, students must earn a satisfactory grade (C or higher or P) in all medical technology courses required for the degree and demonstrate professional behavior as defined by the "Medical Laboratory Technology Department Core Abilities" and associated behavior criteria. Satisfactory progress is demonstrated by exhibiting Developing Level

Criteria by the end of the second year (assessed by core faculty), and Entry Level criteria by the end of the Medical Technology Practicum (assessed by clinical instructors). Students must receive a score of "3" or higher on the Developing Level Criteria in order to progress in the program and a score of "3" or higher in the Entry Level Criteria to graduate from the program. Students who are unable to earn an acceptable grade in the MEDT courses during their initial enrollment may attempt to earn a satisfactory grade one additional time on a space available basis.

When the number of students admitted to the program exceeds the number that can be accommodated in the clinical practicum, students are placed on an "alternate list" and informed they can complete their practicum should space become available, or they are given preference for a subsequent semester. Students receive a letter stating they are an alternate; they sign and return the letter acknowledging alternate status.

GRADUATION REQUIREMENTS

A. GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for Baccalaureate Degrees listed at the beginning of this chapter.

B. GENERAL EDUCATION REQUIREMENTS

Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter. In the Medical Technology program, the required support courses meet the Quantitative Skills and Natural Science Requirements.

C. REQUIRED SUPPORT COURSES

Complete all 32-36 credits of support courses for the Medical Technology major with a satisfactory grade (C or higher).

BIOL A111 Human Anatomy and Physiology I	4
BIOL A112 Human Anatomy and Physiology II	4
CHEM A103/L Survey of Chemistry (4)	4
OR	
CHEM A105/L General Chemistry I (4)	
CHEM A104L Introduction to Organic Chemistry and Biochemistry (4)	4/7
OR	
CHEM A106/L General Chemistry II (4) AND CHEM A321 (3)	
MATH 107 College Algebra or Higher	3
AS 252 Elementary Statistics or Higher	4
ENGL 312 Advanced Technical Writing	3
CIS 305 Managerial Presentations	3
PHIL A302 Biomedical Ethics	3

D. MAJOR REQUIREMENTS

1. MEDT courses (67 credits) Complete the following major courses with a satisfactory grade (C or higher or P).

MEDT A132 Introduction to Laboratory Medicine	3
MEDT A202 Clinical Chemistry	6
MEDT A203 Clinical Microbiology	6
MEDT A204 Hematology and Coagulation	6
MEDT A206 Immunology and Blood Banking	6
MEDT A208 Urine and Body Fluid Analysis	3
MEDT A301 Clinical Molecular Biology	4
MEDT A302 Clinical Laboratory Education and Management	4
MEDT A303 Advanced Clinical Microbiology	4
MEDT A492 Undergraduate Seminar	1
MEDT A495 Medical Technology Practicum (12)	24

2. A total of 123-126 credits is required for the degree, of which 42 credits must be upper-division.

RECOMMENDED COURSE SEQUENCE

Each student's course schedule sequence may vary according to required prerequisite courses.

First Year

Semester I

ENGL A111 Methods of Written Communication
Oral Communication Skills
BIOL A111 Anatomy and Physiology I
CHEM A103/L Survey of Chemistry/Lab or CHEM A105/L General Chemistry I/Lab
Fine Arts (GER)

Semester II

ENGL A212 Technical Writing (recommended)
BIOL A112 Anatomy and Physiology II
CHEM A104/L Introduction to Organic and Biochemistry/L or CHEM A106/L General Chemistry II/Lab
MATH A107 College Algebra or Higher
MEDT A132 Introduction to Laboratory Medicine

Summer

CHEM A321 Organic Chemistry I

Second Year

Semester I

MEDT A203 Clinical Microbiology
MEDT A204 Hematology and Coagulation
MEDT A208 Urine and Body Fluid Analysis
Social Science (GER)

Semester II

MEDT A202 Clinical Chemistry
MEDT A206 Immunology and Blood Banking
AS 252 or Higher
Social Science (GER)

Third Year

Semester I

ENGL A312 Advanced Technical Writing
MEDT A302 Clinical Laboratory Education and Management
PHIL A302 Biomedical Ethics
CIOS A305 Managerial Presentations
Humanities (GER)

Semester II

MEDT A301 Clinical Molecular Biology
MEDT A303 Advanced Clinical Microbiology
MEDT A492 Undergraduate Seminar
Humanities (GER)

Fourth Year

Semester I

MEDT A495 Medical Technology Practicum

Semester II

MEDT A495 Medical Technology Practicum

FACULTY

Heidi Mannion, Associate Professor,
AFHAM@uaa.alaska.edu
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COURSE CONTENT GUIDE

Department: MEDT: Medical Laboratory Technology **Date:** 09/20/04
Course Number: MEDT A492
Course Title: Undergraduate Seminar
Credits: 1 credit

I. Course Description

Applies research and presentation methods to current topics in medical technology.

II. Course Design

- A. Develops skills in preparation and presentation of a research seminar or similar presentation.
- B. Number of Credits 1
- C. Total time of student involvement 45 contact hours
 - 1) Seminar: 1 hours per week for a total of 15 hours
 - 2) Outside work expected- 30 hours total
- D. Required for a Bachelor of Science Degree in Medical Technology.
- E. No special fees.
- F. Standard semester time frame, but may not be taught in less than one week.
- G. This is a revised course.
- H. Coordination with CAS, UAF College of Rural Alaska, MSC, KO, KPC, MIL, ER, and UAA faculty listserv.
- I. Course level justification: Students draw on their acquired knowledge to research and present seminars on current topics in medical technology.

III. Course Activities

Course is conducted in a lecture and seminar format.

IV. Course Prerequisites

AS 252 or higher and CIS A305 or concurrent enrollment.

V. Course Evaluation

- A. Grading is Pass / No Pass
- B. Grades are based on attendance, methodology critique and presentation.
- C. Specific grading criteria will be discussed in the beginning of the course.

VI. Course Outline

- 1.0 Overview of the Research Process
 - 1.1 Basic Research Terminology
 - 1.2 Types of Research
 - 1.2.1 Quantitative Research
 - 1.2.2 Qualitative Research
- 2.0 Research Questions and Hypothesis

- 3.0 Literature Review
- 4.0 Research Designs
 - 4.1 Quantitative Studies
 - 4.1.1 Experimental Research
 - 4.1.2 Quasi-Experimental Research
 - 4.1.3 Nonexperimental Research
 - 4.1.4 Research Control
 - 4.2 Qualitative Studies
- 5.0 Sampling Designs
 - 5.1 Nonprobability Sampling
 - 5.2 Probability Sampling
 - 5.3 Sample Size in Quantitative Studies
- 6.0 Data Collection
 - 6.1 Self-Reports
 - 6.2 Observational Methods
 - 6.3 Biophysiologic Methods
 - 6.4 Assessing the Quality of the Data
- 7.0 Data Analysis
- 8.0 Research Critique
- 9.0 Presentation with Discussion and Peer Review

VII. Recommended Text
None

VIII. References
 Polit, D. F., & Beck, C. T. (2004). *Nursing research: principles and methods* (7th ed.). Philadelphia: Lippincott Williams & Wilkins.
 Munro, B. H. (2000). *Statistical methods for health care research* (4th ed.). Philadelphia: Lippincott Williams & Wilkins.
 Kane, R. L. (1997). *Understanding health care outcomes research*. Gaithersburg, Md.: Aspen Publishers.

IX. Instructional Goals: To provide students with the knowledge and skills to critique research in their discipline and research topics and develop presentations for continuing education in medical technology.

Student Outcomes	Assessment Strategies
Critique research designs.	Methodology Critique
Compile research for a current topic in medical technology.	Bibliography of resources
Analyze data and synthesize research material into an outline format for development of the presentation.	Outline of presentation
Create and deliver presentations on current topic in medical technology.	Class presentation

