Faculty is required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT. Surgical Technology
COURSE NUMBER: SURG1110
NUMBER OF CREDITS: 2(2/0)
COURSE TITLE: Surgical Microbiology

CATALOG DESCRIPTION: This course will enable you to recognize how you can prevent the spread of disease and promote wound healing. You will study the structure and function of microorganisms, pathogenic microorganisms and their diseases along with the methods of transmission. The concept of standard precautions will be explored. Various methods of sterilization and disinfection will be discussed. You will study the wound healing process and classifications in conjunction with the body's defenses against disease.

AUDIENCE: Surgical Technology Students

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)
Area: by meeting the following competencies:
Area: by meeting the following competencies:
Area: by meeting the following competencies:

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: None

LENGTH OF COURSE: 2 hours per week for 15 weeks

THIS COURSE IS USUALLY OFFERED:
Every other year ☐ fall ☒ spring ☐ summer ☐ undetermined ☐

Four goals are emphasized in course at Minnesota West Community & Technical College:

1) ACADEMIC CONTENT: The academic objectives of this course are:
   a. Correlate the impact of microbiology in relationship to the practice of sterile technique and infection control in the operative setting
   b. Identify the name and function of various parts of the compound microscope
   c. Contrast and compare the structure and characteristics of different microorganisms
   d. Analyze the various immune responses that occur in the body as defenses against invasion by pathogens
   e. Relate the infectious process to surgical practice

2) THINKING SKILLS: This students will gain a knowledge of microorganisms that can be applied to the role of a surgical technologist in the surgical setting

3) COMMUNICATIONS SKILLS: This course will help students improve their oral and written communication skills through learning to have dialogue with peers using the terms and definitions related to microbiology and microorganisms related to aseptic technique in the operating room setting.
4) HUMAN DIVERSITY: This course will help students recognize, understand, and appreciate human diversity through interactions with the other members of the healthcare team.

TOPICS TO BE COVERED:
1. Introduction to Microbiology
2. Cell structure
3. Functions of Microorganisms
4. Process of infections
5. Defense Mechanisms
6. Wound Healing

LIST OF EXPECTED COURSE OUTCOMES:
1. Discuss the historical background of microbiology and be able to identify basic equipment used to identify microorganisms.
2. Describe the structure and characteristics of different microorganisms.
3. Describe the conditions that affect the life and death of Microorganisms.
4. Discuss the relationship between humans and pathogenic and non-pathogenic bacteria.
5. Discuss factors that enable pathogens to invade a host and cause a disease.
6. Discuss the general mechanisms that protect the human body from harmful foreign substances.
7. Describe the various immune responses that occur in the body as defenses against invasion by pathogens.
8. Identify and describe how tissues react and are restored to normal function following trauma.

LEARNING/TEACHING TECHNIQUES used in the course are:
- Collaborative Learning
- Problem Solving
- Student Presentations
- Interactive Lectures
- Creative Projects
- Individual Coaching
- Lecture
- Films/Videos/Slides
- Demonstrations
- Other (describe below)
- Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
- Reading
- Tests
- Individual Projects
- Oral Presentations
- Worksheets
- Collaborative Projects
- Textbook Problems
- Papers
- Portfolio
- Group Problems
- Term Paper
- Other (describe below)

EXPECTED STUDENT LEARNING OUTCOMES: See Above

The information in this course outline is subject to revision

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or via your preferred Telecommunications Relay Service.

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