

## Descriptions - MICROBIOLOGY AND PUBLIC HEALTH

of

### Courses

**842. Advanced Soil Microbiology**  
*Spring, 3(3-0) MPH 425 or approval of department. Interdepartmental with the Department of Crop and Soil Sciences. Biochemistry, biology, and community ecology of microorganisms indigenous to soil. Emphasis on current research problems.*

**843. Soil Microbiology Laboratory**  
*Spring, 2(0-6) MPH 842 concurrently or approval of department. Interdepartmental with the Department of Crop and Soil Sciences. Fundamental techniques of dealing with microorganisms indigenous to soil. Metabolic activity of microorganisms. Interaction between microorganisms and plants.*

**890. Special Problems in Microbiology**  
*Fall, Winter, Spring, Summer. 2 to 6 credits. May reenroll for a maximum of 12 credits. Approval of department.*

**899. Master's Thesis Research**  
*Fall, Winter, Spring, Summer. Variable credit. Approval of department.*

**900. Topics in Microbiology**  
*Fall, Winter, Spring, Summer. 2(2-0) May reenroll if different topic is taken. Approval of department. Topics will be selected from taxonomic subspecies such as bacteriology, virology, protozoology, mycology, algology, and helminthology; and from transecting disciplines such as microbial genetics, immunology, physiology, and ecology.*

**901. Experimental Microbiology**  
*Fall, Winter, Spring, Summer. 3(0-9) May reenroll for a maximum of 9 credits. Approval of department. Experiments, demonstrations, and discussions of current research programs in various areas of microbiology.*

**999. Doctoral Dissertation Research**  
*Fall, Winter, Spring, Summer. Variable credit. Approval of department.*

## MILITARY SCIENCE M S

### All University

**041. General Military Science**  
Application of leadership techniques, the decision making process and staff planning. Military customs and traditions. Students will concurrently enroll in a selected non-Military Science course to fulfill military professional requirements.

**A. Military Traditions—M S I**  
*Winter. 0(0-1) Approval of department.*

**B. Advanced Drill and Ceremonies**  
*Spring. 0(0-1) Approval of department or M S II standing.*

**C. Advanced Camp Preparation—M S III**  
*Winter. 0(0-1) Approval of department or M S III standing.*

**D. Military Justice and Unit Administration**  
*Fall. 0(0-1) Approval of department or M S IV standing.*

**121. Preview of Military Science**  
*Fall, Winter, Spring, Summer. 1(1-0) Approval of department. Role of the ROTC officer in the Army. Assists the student in planning a curriculum to satisfy requirements for a commission.*

**122. Marksmanship and Hunter Safety**  
*Fall, Spring. 1(0-2) M S 121 or approval of department. Small arms marksmanship and safety. Practical exercises on local firing ranges. Individual basic military marksmanship and the skills necessary to participate in a competitive or recreational shooting program.*

**221. Fundamentals of Military Art and Tactical Science**  
*Fall. 1(1-0) M S 121, M S 041A, M S 122. Contemporary, military tactical doctrine, operations, principles of modern land warfare; analysis of historical examples, application of current doctrine to hypothetical situations.*

**223. Terrain Analysis and Land Navigation**  
*Winter, Spring. 2(2-0) M S 121 and approval of department. Military topographic maps, special maps, map profiles, specifications and uses. Terrain analysis for military tactical operations. Land navigation with the lensatic and Silva compass.*

**324. Military Teaching**  
*Fall, Winter. 4(4-2) Basic course, approval of department. Methods of teaching manipulative skills to groups with varying educational backgrounds. Emphasis on determination of entry behavior, progress analysis, testing and test construction. Introduction to current teaching aids. Practical experience in simulated field situations is stressed during laboratory.*

**325. Military Management**  
*Spring. 4(3-2) M S 324 or approval of department. Task analysis approach to missions. The subject of tactics is used as a teaching vehicle for the managerial approach to the preparation and execution phases of military operations. Emphasis is placed on physical and moral leadership during the laboratory sections.*

**426. Military Law**  
*Winter. 4(4-0) Approval of department. Jurisdiction and responsibility of the Army commander and junior leader in the application of military justice. Implications of Army operations as related to the rules of land warfare.*

**427. Seminar**  
*Spring. 1(1-0) Approval of department. Precommissioning orientation stressing current military policies, procedures, customs and trends.*

**499. Independent Study in Military Science**  
*Fall, Winter, Spring, Summer. 1 to 3 credits. May reenroll for a maximum of 6 credits. Approval of department and Juniors. Individual research and study in an area related to military science as approved and directed by the Department of Military Science.*

## MUSIC

## MUS

### College of Arts and Letters

**100. Theory Review**  
*Fall, Summer. 2(2-1) For majors who need theory review. Basic course in fundamentals and ear training.*

**112. Chamber Music**  
*Fall, Winter, Spring, Summer. 1(1-0) May reenroll for a maximum of 18 credits. Approval of department. Performance of works for small ensembles.*

**118. Band**  
**A. Marching Band**  
*Fall. 1 credit. May reenroll for credit. Membership determined by audition. The Marching Band participates at football games.*

**B. Spartan Brass**  
*Winter. 1 credit. May reenroll for credit. Membership determined by audition. The Spartan Brass participates at basketball games.*

**C. Concert Band**  
*Fall, Winter, Spring. 1 credit. May reenroll for credit. Membership determined by audition. Public appearances are scheduled on campus each term.*

**D. Symphonic Band**  
*Fall, Winter, Spring. 1 credit. May reenroll for credit. Membership determined by audition. A high level of achievement in performing ability is required. Concerts are scheduled both on and off campus.*

**E. Wind Ensemble**  
*Fall, Winter, Spring. 1 credit. May reenroll for a maximum of 12 credits. Membership determined by audition. The highest level of performance is required. Full range of wind literature is performed. Public concerts are presented both on and off campus.*

**F. Repertory Band**  
*Fall, Winter, Spring, Summer. 1 credit. May reenroll for a maximum of 12 credits. Membership determined by audition. Public appearances are scheduled on campus each term.*

**133A. Symphony Orchestra**  
*(133) Fall, Winter, Spring. 1(0-5) May reenroll for a maximum of 12 credits. Admission by audition. Preparation and performance of symphony and operatic repertoire under direction of faculty and guest conductors of international reputation.*

**133B. Chamber Orchestra**  
*Fall, Winter, Spring. 1(0-5) May reenroll for a maximum of 12 credits. Membership determined by audition. A specialized ensemble of advanced performers concentrating on the repertoire of the classic composers, and modern repertoire for chamber orchestra. Rehearsals and performances with faculty and guest artists.*