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

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

901. Experimental Microbiology
Fall, Winter, Spring, Summer. 3(0-6) May be repeated if different topic is taken. Approval of department.
Experiments, demonstrations, and discussions of current research programs in various areas of microbiology.

999. 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

Fall, Winter. 0(0-1) Approval of department.

B. Evolution of Military Leadership

Fall, Winter. Approval of department.

C. Military Career Preparation

Spring. 0(0-1) Approval of department

D. Advanced Camp Preparation

Spring. 0(0-1) Approval of department

E. Military Staff Organization

Fall, Winter. Approval of department

131. Preview of Military Science

Fall, Winter, Spring. 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.

223. Terrain Analysis and Land Navigation

Fall, Winter, Spring, 3(3-0) M S 121 and approval of department.
Military maps, map construction, specifications and uses. Includes both a study of aerial photographs and an introduction to remote energy sensors employed by defense agencies as they relate to tactical operations.

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 sessions.

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 war.

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 in football games.

B. Spartan Brass

Winter, 1 credit. May reenroll for credit. Membership determined by audition.
The Spartan Brass participates in basketball games.

C. Concert Band

Fall, Winter, Spring. 1 credit. May reenroll for credit. Membership determined by audition.

D. Symphonic Band

Fall, Winter, Spring. 1 credit. May reenroll for a maximum of 12 credits. 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.
Full range of wind literature is performed. Public concerts are presented both on and off campus.

133. Orchestra

Fall, Winter, Spring. 1(0-5) May reenroll for a maximum of 12 credits. Membership determined by audition.
Standard overtures and symphonies studied and publicly performed. Attendance at all rehearsals and public concerts obligatory.

135. Music in Elementary Education

Fall, Winter, Summer. 4(3-3) Elementary education majors.
Basis, scope and sequence of music instruction in the elementary schools with an introduction to basic knowledge and skills used in elementary school music.

141. Class Instruments and Voice

Fall. 1(0-2) Knowledge of notation. Music majors, or approval of department.
Class instruction in piano, voice, violin, cello, clarinet, and cornet.

142. Class Instruments and Voice

Winter. 1(0-2) MUS 141.
Continuation of MUS 141.

143. Class Instruments and Voice

Spring. 1(0-2) MUS 142.
Continuation of MUS 142.

145. Music Foundations I

Fall, Winter, Spring. 3(3-0) MUS 135 and approval of department.
Development of understanding and knowledge of music fundamentals, ear training, music reading, rhythm, and other basic music perceptions. Designed specifically for elementary classroom teachers who elect a strong concentration in music.

147. Elementary Piano

Fall, Winter, Spring. 2(2-2) MUS 145 or approval of department. Elementary Education and Physical Education and Recreation majors.
Beginning class piano instruction. Development of ability to play the three principal chords in all keys and to harmonize simple melodies using these chords. Transposition of simple melodies. Ability to play melodies and rhythms suitable for use in lower intermediate grades or in recreation work.