

531B. Medical Microbiology: Bacteriology and Mycology
Winter. 3(2-4) A course in biochemistry and admission to the veterinary professional program, or approval of department.
 Basic principles of bacteriology and mycology and their relation to disease in animals.

531C. Medical Microbiology: Virology
Spring. 2(1-2) A course in biochemistry and admission to the veterinary professional program, or approval of department.
 Basic principles of virology and their relation to disease in animals.

531D. Medical Microbiology: Parasitology
Spring. 3(2-4) Admission to the veterinary professional program, or approval of department.
 Basic principles of parasitology (protozoology, helminthology, and entomology) and their relation to disease in animals.

532. Veterinary Microbiology and Public Health
(567.) Winter, Summer. 8(5-11)
 531 or approval of department.

Biology, immunology, pathogenicity, and medical aspects of microorganisms associated with infectious diseases of animals. Epidemiology of animal diseases significant to human health.

536. Veterinary Parasitology I
(501.) Winter, Summer. 4(3-4) Veterinary Medicine students or approval of department.

Distribution, biology, and control of parasitic animals of importance to veterinary medicine.

537. Veterinary Parasitology II
(502.) Fall, Spring. 4(2-6) 536 or approval of department.
 Continuation of 536.

800. Seminar
(830.) Fall, Winter, Spring, Summer. 1(1-0).

813. Molecular Virology
Fall. 3(3-0) Background in biochemistry, and approval of department.
 Molecular nature and biochemistry of replication of bacterial and animal viruses. Emphasis is on current advances, research concepts, and the role of viruses in molecular biology research.

816. Parasitic Metazoa
(802.) Spring of odd-numbered years. 4(3-4) 416 or ZOL 481 or approval of department.
 Comparative biology, physiology, and host-parasite relationships of parasitic helminths and arthropods.

817. Parasitic Protozoa
(803.) Spring of even-numbered years. 3(2-4) 416 or ZOL 482 or approval of department.
 Comparative biology, physiology, and host-parasite relationships of parasitic protozoa.

826. Ecology of Animal Parasites
Summer. 3 credits. 416, approval of department. Given at W. K. Kellogg Biological Station.
 Interaction of parasitic animals (protozoa, helminths, and arthropods) with their natural environment, including host, biotic, and physical aspects.

827. Immunochemistry
Spring. 3(3-0) 427; 423, BCH 452, or ZOL 441, and CEM 383 recommended.
 Structure and reactivity of antigens and antibodies; synthesis of immunoglobulins. Emphasis is on current advances and research concepts.

828. Immunochemistry Laboratory
Spring. 2(0-6) 427; 827 or concurrently.
 Laboratory based partially on subject matter of 827. Experimental techniques used in immunological assays and immune systems.

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

900. Topics in Microbiology
Fall, Winter, Spring, Summer. 2(2-0)
 May re-enroll if different topic is taken. Approval of department.

Topics will be selected from taxonomic subsciences 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 re-enroll for a maximum of 9 credits. 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
Fall, Winter, Spring. Zero credit. Approval of department.

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.

121. Preview of Military Science
Fall, Winter. 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) 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
Winter, Spring. 3(3-0) 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) 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.

Civilian and military law as they pertain to individuals and organizations associated with the Department of Defense.

427. Seminar
Spring. 1(1-0) Approval of department.

Precommissioning orientation stressing current military policies, procedures, customs and trends.

MUSIC

MUS

College of Arts and Letters

094. Band
Summer. Zero credit. Membership determined by audition.
 Attendance at all rehearsals and public concerts obligatory. See 118.

100. Theory Review
Fall, Summer. 2(3-2) For majors who need theory review.
 Basic course in fundamentals and ear training.

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

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

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