

**640. Microbial Physiology.** Credit 4 hours. Prerequisite: MIC 461/561 or equivalent. A study of the relationships between structure and function of bacteria and allied organisms. Two hours of lecture and four hours of laboratory per week. A laboratory fee is required for this course. (Varies)

**650. Microbial Genetics.** Credit 3 hours. Prerequisite: MIC 461/561 or equivalent. The genetics of microorganisms with special emphasis on the molecular level. A laboratory fee is required for this course. (Varies)

## Military Science (MS)

**111. Learning to Lead I.** Credit 2 hours. Must be taken concurrently with MS 112. Introduction to the basic principles of leadership to include case studies of problems junior leaders encounter. The fundamentals of drill and ceremony, military correspondence, the Army Physical Fitness Program. Significance of customs and traditions of the service. Introduction to rifle marksmanship and basic individual and squad tactics. (Fall)

**112. Applied Leadership Development Laboratory I.** Credit 1 hour. The practical application of skills and knowledge taught during MS 111. Laboratory develops importance of team building and individual contribution to mission accomplishment. (Fall)

**113. Learning to Lead II.** Credit 2 hours. Discussion of principles of leadership with emphasis on ethical reasoning, analysis of problems, communication with subordinates, issuance of orders, teaching and coaching subordinates and the leader as a counsellor. Explanation of the organization of Department of the Army and its role in defense of the nation. Individual and squad tactics. Introduction to tactical communication procedures. (Spring)

**114. Applied Leadership Development Laboratory.** Credit 1 hour. The practical application of leadership skills and light infantry squad tactics. (Spring)

**211. Basic Leadership Skills Development I.** Credit 2 hours. Must be taken concurrently with MS 212. Discussion of leadership and its application to communication skills and human relations. Practical application of military writing--draft and edit military correspondence. Introduction to military briefings. Application of small unit tactics; individual and squad movement techniques--the responsibility of the leader. (Fall)

**212. Applied Basic Leadership Skills I.** Credit 1 hour. Practical application of the skills and knowledge taught during MS 211. The student will participate in a physical fitness program and employ tactical communications. The student will participate in tactical leadership problems at squad level. (Fall)

**213. Basic Leadership Skills Development II.** Credit 2 hours. A discussion of leadership relating to a small unit leader's mission analysis and planning to accomplish the selected course of action; supervision to accomplish a task, motivational techniques to influence others and molding a unit as a team. A survey of leadership case studies. The fundamentals of map reading: marginal information, the grid system, the contour system and the method of navigating using a military map and lensatic compass. (Spring)

**214. Applied Basic Leadership Skills II.** Credit 1 hour. The practical application of the skills and knowledge taught during MS 213. Practical exercise designed to teach the student leadership via light infantry squad and platoon tactics. The leader in the conduct of an ambush patrol. (Spring)

**311. Tactical Leadership Development I.** Credit 2 hours. Must be taken concurrently with MS 312. A discussion of the role of the non-commissioned officer, how and officer effectively employs the NCO. The discussion of fundamentals of tactical leadership, troop leading procedures in the conduct of an operation, the leader's analysis of terrain, the principles of offensive operations, the preparation of a platoon operations orders, and briefing the order. (Fall)

**312. Practical Application of Tactical Leadership I.** Credit 1 hour. The practical application of skills and knowledge taught during MS 311, emphasizing the leader in action in various tactical application exercises. (Fall)

**313. Tactical Leadership Development II.** Credit 2 hours. A comprehensive study of the art of navigating across terrain using a map and compass. Case studies of leadership - emphasis is on leadership traits and principles necessary to complete CLC using actual battle experience from World War II, the Korean Conflict and the Vietnam War. (Spring)

**314. Practical Application of Tactical Leadership II.** Credit 1 hour. The practical application of skills and knowledge taught during MS 313. Practical exercises using a military map and compass. Leadership as it pertains to organizing a unit for a mission, developing a plan to accomplish the mission and writing the order. (Spring)