

NATURAL SCIENCES AND MATHEMATICS (NSM)

NSM 12A. Peer-Assisted Learning for CHEM 4. 1 Unit
Corequisite(s): CHEM 4
Term Typically Offered: Fall, Spring

Students concurrently enrolled in CHEM 4 and under the guidance of a trained student leader (PAL leader) work collaboratively through problem sets designed by the CHEM 4 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in CHEM 4.

Note: May be repeated for credit

Credit/No Credit

NSM 12B. Peer-Assisted Learning for MATH 29. 1 Unit
Corequisite(s): MATH 29
Term Typically Offered: Fall, Spring

Students concurrently enrolled in MATH 29 and under the guidance of a trained student leader (PAL leader) work collaboratively through problem sets designed by the MATH 29 instructor. Pedagogical strategies that encourage active engaged learning are employed to facilitate student success in MATH 29.

Note: May be repeated for credit

Credit/No Credit

NSM 12C. Peer-Assisted Learning for CHEM 1A. 1 Unit
Corequisite(s): CHEM 1A
Term Typically Offered: Fall, Spring

Students concurrently enrolled in CHEM 1A and under the guidance of a trained student leader (PAL leader) work collaboratively through problem sets designed by the CHEM 1A instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in CHEM 1A.

Note: May be repeated for credit

Credit/No Credit

NSM 12D. Peer-Assisted Learning for CHEM 1B. 1 Unit
Corequisite(s): CHEM 1B
Term Typically Offered: Fall, Spring

Students concurrently enrolled in CHEM 1B and under the guidance of a trained student leader (PAL leader) work collaboratively through problem sets designed by the CHEM 1B instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in CHEM 1B.

Note: May be repeated for credit

Credit/No Credit

NSM 12E. Peer-Assisted Learning for MATH 30. 1 Unit
Corequisite(s): MATH 30
Term Typically Offered: Fall, Spring

Students concurrently enrolled in MATH 30 and under the guidance of a trained student leader (PAL leader) work collaboratively through problem sets designed by the MATH 30 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in MATH 30.

Note: May be repeated for credit

Credit/No Credit

NSM 12F. Peer-Assisted Learning MATH 31. 1 Unit
Corequisite(s): Enrollment in MATH 31
Term Typically Offered: Fall, Spring

NSM 12F Peer-Assisted Learning MATH 31. Discussion, 2 hours. Students concurrently enrolled in MATH 31 and under the guidance of a trained student facilitator work collaboratively through problem sets designed by a MATH 31 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in MATH 31.

Credit/No Credit

NSM 12G. Peer-Assisted Learning PHYS 11A. 1 Unit
Corequisite(s): Enrollment in PHYS 11A
Term Typically Offered: Fall, Spring

NSM 12G Peer-Assisted Learning Physics 11A. Discussion, 2 hours. Students concurrently enrolled in PHYS 11A and under the guidance of a trained student facilitator work collaboratively through problem sets designed by a PHYS 11A instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in MATH 31.

Credit/No Credit

NSM 12H. Peer-Assisted Learning BIO 121. 1 Unit
Corequisite(s): Enrollment in BIO 121
Term Typically Offered: Fall, Spring

NSM 12H Peer-Assisted Learning BIO 121. Discussion, 2 hours. Students concurrently enrolled in BIO 121 and under the guidance of a trained student facilitator work collaboratively through problem sets designed by a BIO 121 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in BIO 121.

Credit/No Credit

NSM 12I. Peer-Assisted Learning BIO 22. 1 Unit
Corequisite(s): Enrollment in BIO 22
Term Typically Offered: Fall, Spring

NSM 12I Peer-Assisted Learning BIO 22. Discussion, 2 hours. Students concurrently enrolled in BIO 22 and under the guidance of a trained student facilitator work collaboratively through problem sets designed by the BIO 22 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in BIO 22.

Credit/No Credit

<p>NSM 12J. Peer-Assisted Learning Math 32. 1 Unit Corequisite(s): MATH 32 Students concurrently enrolled in MATH 32 and under the guidance of a trained student facilitator work collaboratively through problem sets designed by a MATH 32 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in MATH 32. Credit/No Credit</p>	<p>NSM 21. First Year Seminar: Becoming an Educated Person. 3 Units General Education Area/Graduation Requirement: Understanding Personal Development (E) Term Typically Offered: Fall, Spring</p>
<p>NSM 12K. Peer-Assisted Learning BIO 139. 1 Unit Corequisite(s): BIO 139 Students concurrently enrolled in BIO 139 and under the guidance of a trained student facilitator work collaboratively through problem sets designed by a BIO 139 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in BIO 139. Credit/No Credit</p>	<p>Introduction to the nature and possible meanings of higher education and the functions and resources of the university. Designed to help students develop academic success strategies and improve academic skills. Students will interact with fellow students to build a community of academic and personal support. Introduces science and math as academic disciplines by requiring students to interpret scientific literature.</p>
<p>NSM 12L. Peer-Assisted Learning BIO 184. 1 Unit Corequisite(s): BIO 184 Students concurrently enrolled in BIO 184 and under the guidance of a trained student facilitator work collaboratively through problem sets designed by a BIO 184 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in BIO 184. Credit/No Credit</p>	<p>NSM 86A. STEM Learning Practices for Future Teachers. 3 Units Prerequisite(s): Three years of high school mathematics and three years of high school science preferred. Term Typically Offered: Fall only</p>
<p>NSM 12M. Peer-Assisted Learning CHEM 5. 1 Unit Corequisite(s): CHEM 5 Students concurrently enrolled in CHEM 5 and under the guidance of a trained student facilitator work collaboratively through problem sets designed by a CHEM 5 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in CHEM 5. Credit/No Credit</p>	<p>The first course in a two-course pairing. The course is for freshmen intending to be elementary/junior high school teachers with special skills and knowledge in science curriculum and science pedagogy for the K-9 grade span. Students will learn course content through activities, tasks, and assignments that require them to expand their knowledge of science and mathematics concepts and skills as well as synthesize them in relation to real-world issues and problems. Note: Field Trip. Observations in local public K-8 schools</p>
<p>NSM 12N. Peer-Assisted Learning CHEM 24. 1 Unit Corequisite(s): CHEM 24 Students concurrently enrolled in CHEM 24 and under the guidance of a trained student facilitator work collaboratively through problem sets designed by a CHEM 24 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in CHEM 24. Credit/No Credit</p>	<p>Field trip(s) may be required.</p> <p>NSM 86B. Advanced STEM Learning Practices for Future Teachers. 3 Units Prerequisite(s): NSM 86A Term Typically Offered: Spring only</p>
<p>NSM 12P. Peer-Assisted Learning STAT 1. 1 Unit Corequisite(s): STAT 1 Term Typically Offered: Fall, Spring</p>	<p>The second course in a two-course pairing, intended for future elementary/junior high school teachers especially interested in science. This course extends the learning of mathematics and science content knowledge and disciplinary practices from NSM 86A by integrating engineering content and the engineering design cycle. Students will learn course content through activities, tasks, and assignments that require them to synthesize and apply their knowledge of science, engineering, and mathematics concepts and skills to complex and inter-disciplinary real-world issues and problems. Note: Field trip. Observations in local public K-8 schools.</p>
<p>NSM 12P Peer-Assisted Learning STAT 1. Discussion, 2 hours. Students concurrently enrolled in STAT 1 and under the guidance of a trained student facilitator work collaboratively through problem sets designed by a STAT 1 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in STAT 1. Credit/No Credit</p>	<p>Field trip(s) may be required.</p> <p>NSM 88. Exploring Health Careers. 1 Unit Term Typically Offered: Fall, Spring</p> <p>Designed for pre-professional students, this self exploration course will assist students in determining whether a career in the health professions is suitable to their interest, skills, and values. In addition to exploring the traditional health professions medicine, pharmacy, etc., students will have opportunity to explore alternative health professions and career options. This active learning course will include lectures, discussions, individual and group projects, informational interviews, and guest speakers. One hour per week. Credit/No Credit</p>

<p>NSM 96. Peer-Assisted Learning MATH 32. 1 Unit Corequisite(s): MATH 32 Term Typically Offered: Fall, Spring</p>	<p>NSM 197B. Advanced Seminar in Peer-Assisted Learning. 2 Units Prerequisite(s): NSM 197 Term Typically Offered: Fall, Spring</p>
<p>Students concurrently enrolled in MATH 32 and under the guidance of a trained student facilitator work collaboratively through problem sets designed by the MATH 32 instructor. Pedagogical strategies that encourage active, engaged learning are employed to facilitate student success in MATH 32. Credit/No Credit</p>	<p>Specific classroom training for advanced students who are concurrently serving as PAL facilitators within NSM. Action research on learning theory as applied to classroom settings with culminating research presentation. Instructor permission required for enrollment. Lecture & Discussion, 2 hours.</p>
<p>NSM 100A. Transfer Seminar I. 1 Unit Prerequisite(s): first-semester transfer student Designed for first-semester transfer students in the College of NSM. Series of at least 10 seminars related to campus and career-based opportunities, integration with peers, and promotion of academic mindset. Credit/No Credit</p>	<p>NSM 197C. Seminar for Lead & Supervisory Facilitators. 2 Units Prerequisite(s): NSM 197A or NSM 197B Specific classroom training for advanced students who are concurrently serving Lead or Supervisory PAL facilitators within NSM. Leadership and assessment of program effectiveness with a culminating research presentation. Instructor permission required for enrollment.</p>
<p>NSM 100B. Transfer Seminar II. 1 Unit Prerequisite(s): second-semester transfer student Designed for second-semester transfer students in the College of NSM. Series of at least 10 seminars related to campus and career-based opportunities for employment, preparation for entering the STEM workforce, and integration with peers and colleagues. Credit/No Credit</p>	<p>NSM 198. Co-curricular Activities in Natural Sciences and Mathematics. 1 - 3 Units Prerequisite(s): Admission to this course requires approval of instructor. Term Typically Offered: Fall, Spring</p>
<p>NSM 196. Conceptual Understanding of Science for Teachers. 1 - 3 Units Prerequisite(s): Instructor permission. Term Typically Offered: Fall, Spring</p> <p>Intensive examination of selected topics in science for teachers. The goal is to develop a deep conceptual understanding of the science under consideration, knowledge of common misconceptions about the concept, and effective ways to guide student learning of the selected topic. Cross Listed: NSM 296; only one may be counted for credit. Credit/No Credit</p>	<p>Earned credit by participating as tutor or teacher assistant in public schools, volunteering as an instructor or tutor in K-12 courses or programs offered by other community organizations, or engagement in community education programs, which are based in one or more disciplines in NSM. Participation requires three to twelve hours weekly. Note: May be taken more than once but no more than three units may be applied toward the baccalaureate degree. Credit/No Credit</p>
<p>NSM 196A. Science Topics for Middle School. 1 - 3 Units Prerequisite(s): Multiple Subject Credential and instructor permission Term Typically Offered: Fall, Spring</p> <p>Intensive examination of selected topics in science for teachers pursuing subject matter knowledge needed for a general science credential. The goal is to deepen and broaden students' conceptual and factual knowledge base for selected topics. Course will involve hands-on tasks designed to enhance conceptual understanding as well as lectures, small group work and independent tasks necessary for learning the subject matter.</p>	<p>NSM 296. Conceptual Understanding of Science for Teachers. 1 - 3 Units Prerequisite(s): Instructor permission. Term Typically Offered: Fall, Spring</p> <p>Intensive examination of selected topics in science for teachers. The goal is to develop a deep conceptual understanding of the science under consideration, knowledge of common misconceptions about the concept, and effective ways to guide student learning of the selected topic. Note: May be repeated for credit. Cross listed: NSM 196. Credit/No Credit</p>
<p>NSM 197. Seminar in Peer-Assisted Learning. 2 Units Prerequisite(s): Instructor permission Corequisite(s): Acceptance as PAL facilitator Term Typically Offered: Fall, Spring</p> <p>Specific classroom training for advanced students who are concurrently serving as PAL facilitators within NSM. Action research on learning theory as applied to classroom setting with culminating research presentation.</p>	