

MAT 5420 Teaching Apprenticeship (1)

Description: This course provides a supervised experience in teaching in the mathematical sciences through direct participation in a classroom situation. Each student will work closely with a university faculty mentor and will be actively engaged in instructional practices, such as the development of activities and assignments or other relevant experiences. This course may be repeated for a total credit of two semester hours.

Goal: All of our graduate students are required to do two apprenticeships. The apprentice is assigned to a class to learn about: the content taught; the types of students who take the course; how someone would teach the course.

Guidelines

Course selection: Students should apprentice in different courses each time, preferably with different faculty mentors if possible. Possible courses include those listed below. Other courses are possible but must be approved. Students may not apprentice in a course related to their current or past teaching assistantships.

- Developmental Math (0010)
- Introduction to Math (1010)
- Business Math (1035)
- Introductory Statistics (1810, 2810, 2820)
- Pre-calculus, Calculus (1025, 1110, 1120, 2130)
- Math for Elementary Education (2030)
- Linear Algebra (2240)
- Differential Equations (3130)

Apprenticeship Duties: Duties may vary widely, and a few suggestions are given below - other ways of interacting are also possible. The specific plan should be discussed with the mentor as early as possible, but should be submitted before the end of the drop/add period for the term.

- Observe the class for a major topic and work with the instructor to design the assessments to be used, including working on developing the grading rubric.
- Prepare to lead the class through a topic in consultation with the instructor and then present the topic.
- Attend labs and problem sessions to help with questions.
- Prepare online materials (videos, problem sets, etc.) to support the goals of the class.

Time Commitment: Apprentices should spend 40-45 hours total throughout the semester including time spent both in and outside of the formal class meeting time. Some apprentices may opt to attend class for additional hours, but this should not be required as part of the formal duties. If possible, the apprentice's hours should be completed prior to the final exam week.

Mentor Commitment: Mentors will work with the apprentice to design and implement a plan, a brief description of which should be submitted on the attached form prior to the end of the drop/add period for the term. Mentors will also submit a brief report via email indicating whether the apprentice completed the plan in a satisfactory manner and also any areas of improvement needed with regard to teaching and working with students.

Assessment: Apprentices will submit a written reflection on their experience. This reflection should be typed and uploaded into ASULearn before the end of finals for the term.

MAT 5420 Apprenticeship Form

Apprentice Name: _____

Course Prefix Number Section: _____ Semester and Year: _____

Mentor: _____

Brief Description of Plan / Duties of the Apprentice:

Approximate number of hours expected of informal class attendance:
(observation, helping with labs, problem sessions, review sessions) _____

Approximate number of hours expected of formal class instruction: _____

Approximate number of hours expected of out-of-class preparation: _____

Note that these hours should total no more than 45.

Please submit this form to Holly Hirst (paper or PDF email attachment) by the end of the drop/add period for the term.