This course focuses on equity-centered and integrated K-8 pedagogical content knowledge and instructional methods in Science, Technology, Engineering, Mathematics (STEM), and related content. Models project-based learning incorporating digital resources, with an emphasis on ELD and Special Needs strategies. The following is an overview of one approach to teaching this course; however, please bring your own expertise to the facilitation of MALT 603.

**Semester One**

|  |  |
| --- | --- |
| MALT 601: Foundations of Education (1st 7 weeks) | MALT 601: Foundations of Education (2nd 7 weeks) |
| MALT 603: Multiple Subject I: STEM Methods | MALT 605: Multiple Subject Methods II: ELA Methods |

**Note: A total of 40 hours of early fieldwork experiences are to be completed within this program across the first two semesters. Five hours of fieldwork will be completed in each methods course and ten hours will be completed in each foundations course.**

**The Objective**

This course is designed to provide the candidate with an understanding of integrated STEM education including, but not limited to, the challenges and successes of certain instructional strategies for teaching these subjects in the elementary school classroom. This course will include an intense overview of the history, science, methods, and theories of integrated STEM education. The course will also provide a critical examination of curriculum that has been developed for integrated STEM education, as well as the essential procedures for designing curriculum. The goal is to prepare candidates to implement STEM related content and pedagogy in the elementary classroom. In addition to meeting this goal, students will meet the five objectives outlined in the course syllabus.

**The Assignments**

In order to meet the objectives outlined in the syllabus, there are six key assignments and/or assessments. The STEM portfolio, curriculum assessment, weekly discussions, and reflection project are designed to be completed individually. The design challenges and the curriculum development/delivery assignment may be completed in groups, depending on the instructor’s pedagogical preference. The latter two assignments may also be modified to address innovative technological advances in elementary classrooms. For example, [Design Thinking](https://dschool.stanford.edu/resources/getting-started-with-design-thinking) as a methodological approach to creative problem solving may be used to facilitate the design challenges with the goal of immersing your students in the learning process they will soon engage in with their own future K-8 students. Additionally, the design challenges were created with the expectation that students would participate in these activities during class meetings with time allotted for whole group discussions about the successes and challenges of facilitating similar activities in future classrooms. As for the curriculum delivery/development assignment, innovative lesson planning templates such as the [5E Model + Technology](https://www.tcea.org/blog/lesson-planning-5e-model/) may be utilized to demonstrate multiple ways for developing curricula.

**The Course Schedule**

The course schedule included on the syllabus was created to serve as a guide for the instructor and students throughout the semester. Additional in-class activities should be added to this course, not necessarily to the course schedule, to meet the learning objectives outlined in the syllabus. For example, the instructor of MALT 603 may incorporate skill-based activities to support with the development of content-specific knowledge for teacher candidates through the use of various [instructional strategies](https://iris.peabody.vanderbilt.edu/module/math-old/cresource/q3/p05/) (e.g., cooperative learning, explicit instruction) and methods for content delivery (e.g., online learning, station rotation form of blended learning).

Wishing you the best as you teach MALT 603. If you should have any questions about the content or delivery of instruction in this course, please feel free to email questions to [Nicol\_Howard@redlands.edu](mailto:Nicol_Howard@redlands.edu). Thank you.