

“Preparing Professionals for Changing Educational Contexts”
Department of Curriculum and Instruction
College of Education, University of Nevada, Las Vegas

Course Syllabus
CIG 595T (2 credits)
RPDP AP Pre-AP Mathematics Vertical Teams Summer Institute 2012
Summer Semester 2012
June 25–28, 2012

Instructor:

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COURSE DESCRIPTION:

CIG 595T: RPDP AP Pre-AP Mathematics Vertical Teams Summer Institute 2012

This four-day institute is an in-depth examination of the *College Board Advanced Placement Mathematics* curricula from both content and pedagogical perspectives. The participants will examine strategies to introduce skills, concepts, and assessment methods to prepare students for success when they take AP courses. Its goal is to strengthen the curriculum and increase academic challenge for all students. A Vertical Team is a group of teachers from different grade levels. Two credits.

GENERAL COURSE OBJECTIVES:

Knowledge

The education professional will:

- Describe the structure of the AP Mathematics courses and their corresponding assessments.
- Identify appropriate classroom materials for the Pre-AP Mathematics **classroom**.
- Explain concepts, skills, and procedures from the Pre-AP curriculum.
- Describe techniques and content-specific strategies that can be used in the Pre-AP Mathematics classroom.

Performance Skills

The education professional will:

- Create an instructional plan to prepare students for success in AP Mathematics course work.
- Design assessments to measure student achievement in Pre-AP Mathematics.

Dispositions

The education professional will be able to:

- Reflect on one’s practices to improve instruction in Pre-AP Mathematics.

- Pursue knowledge of topics relevant to AP Mathematics **by** reading professional journals and publications, and using media such as AP Central and electronic discussion groups.

Outcomes

The education professional will be able to:

- Understand appropriate and effective strategies to teach skills and concepts in Pre-AP Mathematics.
- Recognize traditional areas of weakness in student achievement in Pre-AP Mathematics.

Specific Course Objectives:

- Create a student-centered rather than teacher-centered classroom.
- Engage in a hands-on, minds-on approach to learning.
- Promote cooperative learning through some group or partner activities.
- Integrate technology, where appropriate.
- Build a quality AP program through identification of students with appropriate aptitude, ability, and interest.

REQUIRED TEXTS/READINGS:

- AP Mathematics Course Descriptions.
- Pre-AP Mathematics Vertical Teams Guides.
- Pre-institute readings as determined by the instructor.

COURSE REQUIREMENTS:

Participant's teaching assignment/license will determine course eligibility.

EVALUATION:

Full attendance in all sessions, out-of-session homework assignments, and active participation in the courses for the entire week is mandatory.

MODES OF INSTRUCTION:

A combination of interactive lecture, cooperative learning groups, whole-group discussion, and hands-on labs will be used to assist the teachers in developing an understanding a concept, skill, procedure, or assessment method. Technology will be used when appropriate.

ASSIGNMENTS/PERFORMANCE ASSESSMENTS:

Homework will be assigned daily, for the first three days of the four-day institute. Instructor may require pre-institute readings and/or require participants to bring lessons and activities to share with the class.

GRADING:

Attendance, Homework & Participation: 100% of total grade

COURSE SCHEDULE:

The daily schedule of the four-day institute is as follows:

8:00 a.m.–11:45 a.m	Class Session
11:45 a.m.–12:15 p.m.	Lunch Break
12:15 p.m.–4:00 p.m	Class Session

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