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COURSE DESCRIPTION AND RATIONALE:

Prospective teachers will learn and use the methods and materials needed to teach secondary school students mathematics with emphasis on use of mathematical modeling and technology and positively participate in a professional learning community of mathematics educators. The rubrics for these pedagogy activities are aligned with the Washington State edTPA for secondary mathematics, National Educational Technology Standards (NETS), and EFC 416 livetext assessments. This course can be used as substitution for EFC 416 for students who are in the Teaching Secondary Mathematics Program.

To meet the expectations of national stakeholders, pre-service candidates must develop knowledge, skills, and dispositions that enable the best K-12 teaching and learning possible. Since many teachers will teach as they were taught, it is crucial that pre-service training include both elements. In particular, effective learning will take place when student(s) (a) preconceptions are engaged, (b) they do activities consistent with professionals in the field, and (c) they are aware of how (and what) they learn. Therefore, the training of future mathematics educators will emphasize these elements in a field-based teaching context.

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PREREQUISITES: MATH 324 and EFC 320.

REQUIRED MATERIALS: Handouts from the instructor; GeoGebra (free downloadable mathematical program); video editing software; WA State fingerprint clearance; access to Canvas, LiveText & Washington State Academic Learning Requirements (<http://www.k12.wa.us/CurriculumInstruct/default.aspx>)

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COURSE GOALS:

- Teacher candidates will complete a Learning Segment that meets all the requirements of the edTPA for secondary mathematics and submit it through LiveText. CWU math faculty trained in edTPA assessment protocol will evaluate the Learning Segment as a benchmark assessment of their teaching preparation.
- Teacher candidates will identify and adapt the curriculum and teaching methods to meet the needs of students in a diverse and global society.
- Teacher candidates will discuss and demonstrate their ability to positively participate in the profession of mathematics teachers.
- Teacher candidates will appropriately and effectively use technology as a productivity tool and to teach their students mathematics that is aligned to the Common Core State Standards in Mathematics and the National Educational Technology Standards.

## ASSESSMENT AND EVALUATION GUIDELINES:

The course's instructional and assessment strategies are designed to inform the students of their progress in achieving the performance outcomes. The electronic portfolio, journals, activities, teaching experiences, and reflections on teaching experiences give multiple assessments of achievement in meeting the performance outcomes.

ASSIGNMENT	POINTS
edTPA (Formative steps)	10
Final edTPA	90
Reflections on peer teaching	20
LiveText portfolio, containing edTPA	70
Field experience: weekly blog entries	50
GeoGebra activities: weekly tasks	80
Technology papers	30
Professional development plan	10
Professionalism:	20
Misc. assignments	0 - 30

**edTPA, formative steps:** Preparation of your edTPA is a huge task. We will scaffold the construction of the sample edTPA into manageable parts over the quarter. You will submit draft versions of your edTPA in sections, with points awarded for quality work submitted on time. I will provide formative feedback to use in your final revision.

**edTPA, final version:** The final version of your edTPA is your major assignment of the quarter. We will complete the instruction and assessment portions of the edTPA in this course. Together, the edTPA formative steps and final version are worth 100 points.

**Reflections on peer teaching:** You will teach to your peers twice; after each episode of teaching, you will complete a reflection on peer teaching. Those two reflections are worth 10 points each, and will help with the self-assessment reflections required in the edTPA.

**LiveText portfolio:** The LiveText portfolio is the final assessment in the course. In it, you upload many of the assignments that were created over the quarter along with your final version of the edTPA, and write thoughtful reflections on the main topics of the course. The LiveText portfolio is worth 70 points.

**Field experience, blog entries:** You will keep a weekly journal about your field experience in the form of a blog. We will be using Weebly to host the blog, which is a publicly available tool that is outside of the CWU system. You need to be careful about maintaining confidentiality of your school, your cooperating teacher and your students. You are encouraged to use a pseudonym yourself for the blog. The set of 10 blog entries is worth a cumulative 50 points.

**GeoGebra activities:** You will use GeoGebra to perform a weekly mathematical task, from constructing a figure, to plotting a function, to creating statistical displays such as a boxplot, dot plot and histogram. These activities are designed to teach you the different capabilities of GeoGebra for both instruction and creating professional-looking mathematical documents such as handouts, quizzes and tests.

**Technology papers:** You will write three short papers/reflections on the use of technology in the classroom, related to particular technologies, assistive technology, and to the educational technology standards.

**Professional development and growth plan:** You will create a professional development plan with an emphasis on using technology to enhance student learning. This professional growth plan, which you have also completed in prior courses, is worth 10 points.

**Misc. Assignments:** I may assign other short tasks during the quarter. These assignments all fall into this miscellaneous category.

**Professionalism:** Students in the teacher preparation programs have one foot in the world of students and the other foot in the world of professional teachers. Professionalism includes time management, responsible behavior, attention to detail, engagement, attendance, and treating fellow students and the professor with respect.

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SUGGESTIONS FOR SUCCESS:

Take the responsibility for your own achievement of these performance objectives. You can get individual help by e-mail arrange to meet me before class. If at any time you have trouble using Canvas or another online platform, or do not understand the directions to a task, make sure to contact the professor. Use the activities, assignments, assessments and people in the class (both the professor and fellow students) to ensure that you master the performance objectives of the course.

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PROFESSIONALISM:

Professionalism in teaching is marked by always treating people with respect, being on time, and being prepared. Therefore, you must come to class on time and prepared. Also when visiting/observing in the public schools you must treat the students and other teachers with respect, act & dress professionally, be on time, and be well prepared. It is very important to be at your school at least 10 minutes before your scheduled class (remember you must check in at the office when entering the school). A lack of professionalism will have a negative effect on your course grade.

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DISABILITY SERVICES:

Students with disabilities wishing to use academic adjustments in their CWU classes must be registered with Disability Services (DS). Information about the DS intake process may be obtained by emailing cds@cwu.edu or calling (509) 963-2171. Qualified students with disabilities may establish academic adjustments in this class by either sending me their official on-line accommodation request or speaking with me to establish the manner in which requested adjustments will be delivered.

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HONOR, RESPECT, AND ACADEMIC HONESTY:

Each of us should consider our placement at this institution to be a privilege. We need to have respect for one another, and for ourselves. In light of these facts, cheating in any form will not be tolerated. You are encouraged to discuss the concepts and topics in this course when writing your papers, however, your writing should reflect your own ideas and synthesis of the course material. The word “plagiarize” is defined by Merriam-Webster as “to steal and pass off (the ideas or words of another) as one’s own: use (another’s production) without crediting the source.” This is a very serious offense, and jeopardizes your position at the University.