UHWO Mission Statement:
UH West O’ahu is a four-year, comprehensive university with an emphasis on baccalaureate education founded in the liberal arts, serving professional, career-related, and applied fields, based on State and regional needs. UH West O’ahu is committed to providing access to residents throughout the State of Hawai’i through its partnerships with the University of Hawai’i’s community colleges and its delivery of distance education programs. (UHWO General Catalog, 2014-2015)

COURSE INFORMATION

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Meeting Times</th>
<th>CRN</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 111 – Mathematics for</td>
<td>TR 3:30 - 4:50 pm</td>
<td>69503</td>
<td>D 237</td>
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<tr>
<td>Elementary School Teachers I</td>
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<tr>
<th>Course Credits</th>
<th>Duration</th>
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<tbody>
<tr>
<td>3</td>
<td>January 12 – May 8, 2015</td>
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</table>

INSTRUCTOR CONTACT INFORMATION

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Contact</th>
<th>Office</th>
<th>Office Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Darienne Dey</td>
<td><a href="mailto:darienne@hawaii.edu">darienne@hawaii.edu</a></td>
<td>D 237 (our classroom) -- otherwise, E 238</td>
<td>Tuesdays &amp; Thursdays before class (as early as 2:30) and after class (depending on the room’s usage &amp; unless otherwise specified)</td>
</tr>
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</table>

Course Websites

Laulima ([http://laulima.hawaii.edu](http://laulima.hawaii.edu)) is where links to the course’s syllabus and schedule are available and will allow you to monitor your course progress by viewing grades for the different components of the course. You will need your UH account to access this site.

MyMathLab ([http://www.pearsonmylab.com](http://www.pearsonmylab.com)) is the platform that will be used for daily quizzes. If you already purchased the MyMathLab access code last semester, you do not need to buy this again. Course ID: dey64617

Piazza ([https://piazza.com/hawaii/spring2015/math111/home](https://piazza.com/hawaii/spring2015/math111/home)) will be used for getting help from classmates as well as your instructor. When working on homework assignments, students are encouraged to discuss your questions on Piazza. It even has an app!

REQUIRED TEXTBOOK & MATERIALS

2. A scientific calculator (online: [https://www.google.com/search?q=scientific+calculator&ie=utf-8&oe=utf-8](https://www.google.com/search?q=scientific+calculator&ie=utf-8&oe=utf-8), or feel free to use your smart phone’s).
3. A three-ring binder or notebook with pockets in which to house homework (which is to be turned in via hard copy).

COURSE DESCRIPTION & PREREQUISITES

Math 111 - Math for Elementary Teachers I is designed especially for prospective elementary school teachers to enhance your mathematical skills and to prepare you to take the teaching-methods course. The course is not intended to be a course in elementary-school math nor a course in how to teach elementary-school math. Rather, it is intended to give prospective teachers a specialized understanding of the math you will be teaching. This type of understanding is different from what it takes to do well in a math course as a student or at other jobs that require mathematics, but it is essential for effective teaching. Problems are the medium through which mathematical information ebbs and flows and are the most important part of this course. Students should be cognizant that doing mathematics amounts to solving problems, whether in class, textbook assignments, real-world applications, or other methods. Therefore, much of the class meetings will be spent in a give-and-take discussion of problems, proofs, and reasoning.

Pre-requisites: Grade of “C” or better in MATH 103 or equivalent course work within the past two years;
placement into MATH 111; or consent of instructor.

COURSE OBJECTIVES

**Student Learning Outcomes:** This course is designed for you as both a learner of mathematics and as a future teacher of mathematics. The course focuses on mathematical content for teaching, and includes not only topics, ideas, skills, and procedures in specific mathematical domains but also the mathematical thinking and reasoning involved in the mathematical tasks that teachers do.

Upon successful completion of Math 111 - Math for Elementary Teachers I, students will be able to apply critical thinking, including rules of logical sequence, to problem-solving. The student will have a clearer understanding and insight into algebraic and geometric concepts and techniques and into the power of mathematics and symbolic reasoning (ILO 3, GELO 3). Specifically, the student will be able to carry out the following:

1. **Possess adequate knowledge and flexible understanding of the mathematics necessary for teaching students in grades K-6, and the ability to use that knowledge.**
2. **Understand the central features of an adequate mathematical explanation and be able to provide such explanations.**
3. **Be able to interpret, evaluate, and respond to the ideas, explanations, solutions and methods of others.**
4. **Be able to identify and analyze student errors.**
5. **Be able to choose and use multiple representations (verbal, symbolic, visual, etc.), examine correspondences and equivalences among representations, and make sense of representations different from your own.**
6. **Be able to adequately communicate mathematical ideas both in writing and orally, in a clear convincing, and accurate way and make use of appropriate representations when applicable.**

The aforementioned student learning outcomes are aligned with the UHWO Institutional Learning Outcome Critical Thinking (ILO 3) to demonstrate critical thinking skills by applying information to make well-reasoned arguments or solve a problem, and the UHWO General Learning Outcome Symbolic Reasoning (GELO 3) to use quantitative and symbolic reasoning to obtain accurate results in solving problems.

**General Education Foundations - Symbolic Reasoning (FS):** This course falls under the designation of symbolic reasoning (FS). The hallmarks for symbolic reasoning include exposing students to the beauty and power of formal systems, as well as to their clarity and precision. This course does not focus solely on computational skills. Students should understand the concept of proof as a chain of inferences. They should be able to apply formal rules or algorithms and engage in hypothetical reasoning. In addition, students will develop the ability to use appropriate symbolic techniques in the context of problem solving, and in the presentation and critical evaluation of evidence.

**UHWO TEACHER EDUCATION**

**Mission Statement:** The UHWO Teacher Education program is dedicated to its vision of providing innovative teacher preparation programs and public service activities in support of the continuing development of West O’ahu communities. To realize this vision, the mission of the program is to provide teacher candidates with the knowledge, skills, and dispositions necessary to become outstanding educators, especially in the elementary schools located in central and leeward communities.

**Conceptual Framework:** The Conceptual Framework (CF) serves as a guide for fulfilling the UHWO Teacher Education Program vision of preparing highly qualified teachers for entry into the skilled workforce. The program recognizes the contributions of general education, content area studies, and professional studies to the preparation of educators. Three key values underlie the professional studies philosophy and objectives: 1) standards-based education, 2) student-centered learning, and 3) an orientation to social justice. Within this framework, the UH West O’ahu Bachelor of Education degree program develops teacher candidates who have the knowledge, skills, and dispositions to:

1. meet the rigorous professional standards for teaching in order to help their students meet high standards for learning;
2. teach in a caring, student-centered manner, differentiating instruction as needed to enable all learners to succeed; and
3. understand issues of equity, use culturally-responsive instruction, and build bridges between school and community.

COURSE REQUIREMENTS

- **Homework Assignments (30%)**: Before each class, students are expected to read the sections and review the examples.
- **Exams (20% + 20%)**: There will be two exams – a take-home midterm and a take-home final. The midterm will take place between a Thursday class and its following Tuesday class, whereas the final exam will take place over the course of one week. The tasks and problems you will be asked to do will be consistent with those you encountered during the course. Although the exams must be completed individually, you may use your notes and resources, during the exams.
- **Class participation (10%)**: Attendance and class participation is mandatory. Your participation in class activities and discussions is important not only for your own learning but also the learning of others. If circumstances prevent you from attending class, please notify me in advance when possible (darienne@hawaii.edu). Any student who misses the equivalent of two weeks of class will be counseled to drop the course. Extenuating circumstances will be dealt with on an individual basis.
- **Final Project (20%)**: The final project will entail drafting a mathematics lesson that incorporates mathematical topics from throughout this semester with a service learning activity at a place or with an organization that serves a geographical and/or cultural community. For the written portion (i.e., a 5- to 10-page paper), please include the following five components: 1) introduction, 2) background information, 3) teaching plan & possible extensions, 4) personal reflection, and 5) references. In the introduction, please include Common Core Mathematics Standards.

**Letter Grades**

- A 93-100%
- A- 90-92%
- B+ 87-89%
- B 84-86%
- B- 80-83%
- C+ 77-79%
- C 74-76%
- C- 70-73%
- D+ 63-69%
- D 57-62% (minimally passing)
- D- 50-56%
- F 0-50% (not satisfactory)

**Other Policies & Expectations**

- **Make-up Policy**: Students who miss a test or a quiz due to an unexcused absence will not be provided make-up exams. Make-ups are only available for extreme circumstances (death in immediate family or a medical emergency). No more than one make-up exam may be taken.
- **Study Time**: The UHWO Credit Hour Policy states that students in a 3-credit course are expected to devote a minimum of **9 hours per week** (x 15 regular weeks = 135 hours per semester) on course related work (see UHWO General Catalog). In accordance with the UHWO Credit Hour Policy, this source was reviewed to assure that the work assigned to achieve the stated student learning outcomes meets the UHWO credit hour policy. To achieve adequate learning in this course, it is expected that students will need to devote a minimum of 9 hours a week attending scheduled class meetings, completing assigned readings, working on study questions, researching and writing reflection papers, and studying for scheduled
Student Conduct: UHWO is an academic community with high professional standards. Its teaching, research, and service purposes are seriously disrupted and subverted by academic dishonesty, including plagiarism and cheating. In accordance with this, the student conduct code delineates the appropriate hearing procedures and various sanctions that may be imposed, ranging from a warning, restitution where appropriate, to probation, suspension, expulsion, or the rescission of grades or degree. Copies of the student conduct code are available through the Student Services Office and UHWO’s website (http://www.uhwo.hawaii.edu/conduct).

STUDENT SERVICES

UHWO No'eau Center for Writing, Math, and Academic Success: In Spring 2008, UH West O'ahu opened a new undergraduate Math Center based on a National Science Foundation grant, which is now part of the UHWO No'eau Center for Writing, Math, and Academic Success. UHWO mathematics combines academic mentoring with personalized tutoring and research experiences, all of which are critical to achieve our goal of increased student success in college, particularly for traditionally underrepresented students. Tutoring occurs in the UHWO No'eau Center for Writing, Math, and Academic Success located in the Library Room 203 (808-689-2750), and open hours will be posted within the first couple of weeks of classes. UHWO also has the capacity to facilitate online tutoring.

Physical or Learning Disability Accommodations: The University of Hawai‘i-West O‘ahu is committed to providing a working and learning atmosphere, which reasonably accommodates qualified persons with disabilities. If you have any disability that may impair your ability to complete this course successfully, please contact the Student Services Office at 808-689-2689. Reasonable academic accommodations are reviewed for all students who have qualified documented disabilities.

Safety: The safety of students is a priority at the University of Hawai‘i-West O‘ahu. The telephone number for security at UHWO is 808-689-2911.

Library: The UHWO Library is committed to providing seamless access to both print and electronic resources; to instructing and guiding students, faculty, staff and community members on how to use such resources; to creating a sense of place - and not just space - on campus where the University community can connect and engage; and to enabling students to make independent, confident decisions regarding their information needs now and beyond their undergraduate careers. Check their website for hours of operation.

Kealaikahiki Native Hawaiian Student Support Services provides tutoring, peer mentoring & support, guest speakers, seminars & workshops, cultural events, community service projects, and student activities. You can contact them at uhwohiki@hawaii.edu or by phone at (808) 689-2684.

Health and Wellness Services: The University of Hawai‘i West O‘ahu offers free and confidential mental health services for all enrolled students. These services include individual and group therapy, couples counseling, and psychological assessment. For additional information contact Dr. Taketa by phone or email (taketas@hawaii.edu) or visit his office in the Student Affairs Department (C244). Walk-in appointments are welcome, your participation is completely voluntary, and general inquiries about health and wellness are encouraged.

TENTATIVE COURSE SCHEDULE:
https://docs.google.com/document/d/1i4PMY7eopYq73a9uDJ9tViagO1zxFv6HE-5baCjTLtk/edit?usp=sharing