5.3.4 Secondary Mathematics Teaching Option with Certification

**Description:** Since many of you are recent high school graduates, you generally understand the primary duties of a high school mathematics teacher. However, there are many opportunities related to educating high school students besides tasks associated with classroom teaching. With a BS degree in mathematics with the secondary teaching option, it is possible to: run a "math lab" designed to provide tutorial help for high school or even college students; chair a middle or high school mathematics department; write mathematics curriculum; develop educational technology; assume active leadership roles in professional state or national organizations; teach extension or night classes; or work with the superintendent’s office on various projects including setting/revising state standards. Also, there are many new opportunities for specialists or math coaches as the shortage of qualified mathematics teachers continues to drain the limited pool of teachers, especially in the middle schools. A math specialist or mathematics coach works with district mathematics teachers to aid in various areas: adoption of new curriculum; development of supplemental material for existing curricula; writing grants to obtain materials or pay for professional development or travel.

**Job Market and Salary Information:** Currently, the demand for qualified mathematics teachers is very high in secondary and middle schools. Salaries in public schools in the State of Washington for 2014-2015 start at approximately $34,000 for someone with a BS and $40,000 for someone with a master’s degree. Experienced teachers with the highest qualifications are earning salaries of $64,000. Teachers who are Nationally Board Certified earn an additional yearly bonus of $5,090. You can search the website for the Office of the Superintendent for the state you plan to teach in for more information on these issues. In Washington, this information can be found at the Office of the Superintendent of Public Instruction (OSPI) [http://www.k12.wa.us](http://www.k12.wa.us).

**Suggestions:** If you are interested in teaching secondary mathematics, then you must have a sophisticated understanding of the mathematics that provides the foundation for the curriculum you will teach. Current national standards push for a more conceptual understanding of mathematics involving critical thinking rather than relying solely on memorization, and this requires that teachers have a greater depth of mathematical understanding than they might have had in the past.

There are two ways you can complete the mathematics requirements that meet state certification to teach secondary mathematics. One is to complete the requirements for a mathematics BS with Secondary Teaching Option as described in the current catalog. The other method is through the General Studies program. The requirements for the mathematics major in the General Studies program are given under the Department of Education in the current college catalog to ensure requirements meet the minimum state requirements. The General Studies program requires less mathematics coursework than a Mathematics BS, and is for those students who prefer broader teaching goals, such as teaching two subjects or receiving extensive coaching training. However, if you decide not to continue with a teaching career, the General Studies degree is not sufficient for many of the career paths that one can follow with a BS in mathematics.

**Resource People:** Professors S. Cooper, Karunakaran, Knott, and Vincent. The coordinator for field placement in Teaching and Learning is Christine Sodorff.

**Required Courses:** Math 216, 330, 403, 431, the capstone course Math 432, and two additional 3-credit 300-400 level math courses.

**Substitutions:** Math 402, 420 and Cpt S 121 are not required; Engl 201 (or 301) should be taken instead of Engl 402. Math 320 may be substituted for Math 421.
T&L Requirements: Secondary education teacher certification also currently requires EdPsy 468, TCH_LRN 301, 317, 464, 465, 466, 467, 469, and 470; a Teaching & Learning advisor should be consulted for proper sequencing and approval. Enrollment in Teaching & Learning (TCH_LRN) courses after TCH_LRN 301 and 317 requires admittance to the teacher preparation program. (Contact the Teaching & Learning Department in the College of Education for information and an advisor). TCH_LRN 415 (student teaching) completes the program of study.

Note on Certification: Certification into the Secondary Mathematics Education option is a two step process. First you must be certified by the Mathematics Department in a manner consistent with the other options. The second step is to be admitted into the secondary program by Teaching & Learning. The Mathematics Department is involved in that process, but Teaching & Learning has the final say. You must have completed or be enrolled in Math 301 when you apply for admission to the secondary program.

Some Professional Organizations for Mathematics Teachers:

http://www.nctm.org
http://www.amatyc.org
http://mathcentral.uregina.ca

http://www.rethinkingschools.org
http://www.whatkidscando.org