

Master of Arts in Teaching (M.A.T.)
Science Education Program
Department of Mathematics and Science Education, University of Georgia
Requirements/Advising Worksheet
[last updated August 2015]

A total of 36 Semester Hours of graduate credit (courses numbered 6000+) are required for the degree. An additional 15 hours of enrollment (the field experience-related component of the program – Practicum and Student Teaching) are required for certification, thus totaling 51 hours.

1. Courses required for **Secondary Science Certification** (27 hours total)¹

Block 1*, Methods and Practicum [Fall Semester]:

_____ ESCI 3450**, Practicum in Science Education, 3 hours [MWF mornings]

_____ ESCI 6450, Science Curriculum and Learning, 3 hours [MWF mornings]

_____ ESCI 6460, Methods of Science Teaching, 3 hours [MWF mornings]

_____ ESCI 6480, Technological Capabilities for Science Teaching, 3 hours [evening]

Block 2*, Student Teaching and associated seminars [Spring Semester]:

_____ ESCI 7460**, Internship in Science Education (Student Teaching), 12 hours [all day]

_____ ESCI 7470, Reflection on Science Teaching, 3 hours [evening]

2. Other courses required for **Certification** (2 courses; 6 hours total)²

_____ Educational Psychology: EPSY 6010, 6010E, 6060, 6800, or 6800E [usually Fall]

_____ Special Education: SPED 6030 or 6030E [usually Summer]

3. Additional courses in **Science Education** (2 courses; 6 hours total)³

_____ ESCI 7040 Teaching Strategies for Middle and Secondary School Science Teachers
or ESCI 7080 Curriculum Planning in Science Education [each offered every other Summer]

_____ ESCI elective (usually ESCI 7040 or 7080, 6200, 6220, 6230, or 6420) [Summer]

4. **Educational Research** (1 course; 3 hours)

_____ ESCI 6990 Introduction to Science Education Research [Fall Semester; evening or online]

5. **General Electives** (3 courses; 9 hours; or as many as needed for a grand total of 36 hours)

Elective courses may be in Science Education (most often those listed above) but may be in science content fields/departments or in other fields/departments within the College of Education, and should be judged by the advisor to be appropriate for students in the Science Education program.⁴

6. **Certification Portfolio**

Each student will develop a portfolio of artifacts and reflections that serves as a formal Comprehensive Examination for the degree. The portfolio is normally submitted during the semester in which the student plans to graduate, and is due three weeks before the Graduate School's deadline for reporting the results of Comprehensive Examinations. These due dates are typically the first Friday in April, July, or November, for the Spring, Summer, and Fall Semesters, respectively.

[Please see the detailed notes on the next page.]

*ESCI 3450, 6450, 6460, and 6480 are mutual corequisites, as are ESCI 7460 and 7470.

**Indicates Field Experience courses that do not count toward the 36 graduate hours and should not be included on the Program of Study document submitted to the Graduate School.

In accordance with UGA Graduate School rules:

- Transfer credit from another institution is limited to 6 hours, with grades of B or higher.
- A maximum of 9 hours of coursework initially taken on a non-degree basis at UGA may be applied to degree requirements.
- A student must be registered for at least 3 hours during the semester in which requirements for the degree (e.g., portfolio) are completed. These last 3 hours must be through UGA rather than transferred.
- All students must comply with the Graduate School's Continuous Enrollment Policy⁵

¹Passing both parts of the Georgia Assessment for Certification of Educators (GACE) exam for the certification field (for Biology, Chemistry, and Physics) is also required by the Georgia Professional Standards Commission (PSC) for certification, and normally must be taken during the Block 1 semester. There is no GACE exam specific to Earth/Space Science, therefore the more general Secondary Science GACE is the appropriate test. "Broad Field" Secondary Science certification may also be added to the subject-specific initial certification earned in the MAT program by passing the general Secondary Science GACE and applying directly through the PSC.

²At least one of the courses in these two areas is most frequently taken concurrently with Block 1 or earlier (or, in the case of SPED only, later – an EPSY course is a strict prerequisite for Block 2). These courses are typically available on campus in all semesters. "E" after a course number indicates that the course is conducted wholly or primarily online, and these versions may reach their enrollment limit quickly. If comparable undergraduate courses (perhaps taken before starting the program) are used to fulfill one or both of these certification requirements, the number of graduate-level electives required for the degree increases accordingly.

³ESCI 7040 and 7080 are given every other Summer, typically during Second Short Session (nominally July). MAT students whose program incorporates two Summer Semesters are strongly encouraged to take both. Other ESCI courses offered all or most Summer Semesters include 6200 (Science, Technology and Society, special focus alternating between STEM Integration and Socio-scientific Issues, and therefore repeatable for credit), 6220-6230 (the Georgia Shore Program, offered over 2 intensive weeks in residence at the UGA Marine Education Center at Skidaway Island in June), and 6420 (Science for PreK-8th Grade).

⁴Common and highly suggested categories of electives include: additional courses in Science Education (ESCI); courses in Social Foundations of Education (EFND); additional courses in Educational Psychology (EPSY); and graduate courses in science content fields. MAT students are encouraged to enroll in advanced courses in their primary science field when possible. Such courses are only very rarely available at UGA in Summer Semester and/or during evening hours, however, and therefore are often difficult or impossible to schedule. Science courses specially designed for teachers are offered by some UGA science departments in Summer, and are increasingly offered on an online basis by other universities or scientific institutions (e.g., in recent years, NASA, Oak Ridge National Laboratory, Woods Hole Oceanographic Institution, American Museum of Natural History). In some cases such substantively appropriate courses/workshops do not carry formal graduate credit from any university, and advisors may choose to offer credit under ESCI 6000 (Special Topics in Science Education) for the student to prepare a final report, project, portfolio, or presentation based on the scientific experience in question.

⁵All UGA graduate students must register for at least 3 hours of coursework during at least two of the three semesters of each year (operationally defined as beginning in Fall and ending in Summer) until graduation. To cite the two most common practical implications of this rule, it is not permissible to be a "summers only" student (even at the beginning and/or end of a program), and in order to "take the summer off" it is required to have been registered during both of the preceding two academic year semesters.