

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

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:

- _____ ESCI 3450**, Practicum in Science Education, 3 hours
- _____ ESCI 6450, Science Curriculum and Learning, 3 hours
- _____ ESCI 6460, Methods of Science Teaching, 3 hours
- _____ ESCI 6480, Technological Capabilities for Science Teaching, 3 hours

Block 2*, Student Teaching and associated seminars:

- _____ ESCI 7460**, Internship in Science Education (Student Teaching), 12 hours
- _____ ESCI 7470, Reflection on Science Teaching, 3 hours

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

- _____ Educational Psychology: EPSY 6010, 6010E, 6060, 6800, or 6800E
- _____ Special Education: SPED 6030 or 6030E

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

- _____ ESCI 7040 Teaching Strategies for Secondary School Science [First Summer Session]
- _____ ESCI 7080 Curriculum Planning in Science Education [Second Summer Session]

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

- _____ ESCI 6990 Introduction to Science Education Research [Fall Semester, evening/online]

5. **General Electives** (3 courses; 9 hours total)

Elective courses should be selected by the student in consultation with the Major Professor, and may be in any field judged relevant to the student's career aspirations in science education.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.

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

**These Field Experience courses 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 GACE exam for the certification field (for Biology, Chemistry, and Physics) is also required for certification. There is no subject-specific GACE exam in Earth/Space Science, so 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 Georgia Professional Standards Commission.

² Courses in these two areas are best and most frequently taken concurrently with Block 1, but may be taken earlier (such as the preceding Summer) if desired. The EPSY requirement is a strict prerequisite for Block 2. The SPED requirement may be fulfilled later (such as the following Summer), but at the cost of delaying completion of certification. Taking these or other courses concurrently with Block 2 is *strongly discouraged*, since Student Teaching should be viewed as a full-time commitment. 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 not be given every semester and may reach their enrollment limit quickly.

³ESCI 7040 (Instructional Strategies, First Short Summer Session, nominally June) and 7080 (Curriculum Planning, Second Short Summer Session, nominally July), are given every Summer, and only in Summer.

⁴Common and highly suggested categories of electives include: additional courses in Science Education; additional courses in Educational Psychology (EPSY); and graduate-level courses in science content fields.

Other master's-level courses in Science Education include:

- ESCI 6000 Special Problems in Science Education [directed study with a member of the faculty]
- ESCI 6100 Laboratory Teaching Internship [in introductory Biology or Chemistry courses at UGA]
- ESCI 6200 Science, Technology, and Society [Second Summer Session]
- ESCI 6220 Marine Environmental Education [2 weeks in June at UGA Extension at Skidaway Island]
- ESCI 6230 Environmental Science Education [2 weeks in June at UGA Extension at Skidaway Island]
- ESCI 6420 Science for PreK-8th Grade [Second Summer Session]

Master's degree students in Science Education are encouraged to enroll in substantively advanced coursework in science fields related to their undergraduate major and/or certification field. Such courses are only very rarely available at UGA in Summer Semester, however, and therefore are often difficult or impossible to schedule for MAT students. Therefore students often enroll in Summer and/or online courses, having few or no prerequisites yet carrying graduate credit, in science fields in which their background is relatively weak. Advisors are encouraged to use reasonable judgment in approving similar courses offered at field sites or online 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 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.