

## ***Master of Arts in Mathematics Teaching (M.A.T.) program guide sheet***

This degree is designed primarily for those who decide that they would like to become teachers and have already completed a B.S. and B.A. in mathematics. It features advanced work in Mathematics along with the courses required for certification. It is a means by which candidates can attain a Master's degree and certification at the same time. This degree program assumes the candidate has completed a baccalaureate degree in mathematics equivalent to one as at the University of Iowa, but has no previous course work in education. This program consists of 49 semester hours of course work. More coursework may be advised if there are mathematics classes the candidate has not taken as part of their undergraduate mathematics baccalaureate degree program to render their degree equivalent to one from the University of Iowa.

Students should have an equivalent degree program as those in mathematics in the College of Liberal Arts at the University of Iowa. A GPA of 3.0 is required for admission and must be maintained throughout the enrollment period.

### **Required Education Courses (46 s.h.)**

**The following three courses--07S:190, 07S:195, and 07E:102--should be taken during the first semester of registration.**

07S:190 Orientation to Secondary Education (1 s.h.)  
07S:195 Teaching Reading Secondary Content Areas (1 s.h.)  
07E:102 Technology in the Classroom (2 s.h.)

07P:200 Educational Psychology (3 s.h.)  
07B:103 Foundations of Education (3 s.h.)  
07U:100 Foundations of Special Education (3 s.h.)  
07S:171 Secondary Classroom Management (for students admitted March 2008 or after) (3 s.h.)  
07B:180 Human Relations for the Classroom Teacher (3 s.h.) (Substitutions only through Office of Education Services)  
EDTL:3532 (07S:133) Introduction and Practicum: Mathematics 3 s.h.  
EDTL:3534 (07S:134) Methods: Middle School Mathematics 3 s.h.  
EDTL:4535 (07S:135) Methods: High School Mathematics 3 s.h.

**The following courses are taken concurrently and constitute the Student Teaching semester:**

07S:187 Seminar: Curriculum and Student Teaching (3 s.h.)  
07S:191 Observation and Laboratory Practice in the Secondary School (6 s.h.)  
07S:192 Observation and Laboratory Practice in the Secondary School(6 s.h.)

One additional Graduate-level mathematics education class such as EDTL:5535 (07S: 235) Current Issues in Mathematics Education 3 s.h.

### **GRADUATE MATHEMATICS REQUIREMENTS:**

If necessary, courses fulfilling the University of Iowa Mathematics major (either Track A or Track B) with at least one additional mathematics graduate course(3 s.h.) such as MATH:4120 (22M:107) History of Mathematics, or MATH:4050 (22M:150) Introduction to Discrete Mathematics or MATH:4060 (22M:151) Discrete Mathematical Models 3 s.h.

### **Comprehensive Examination**

The mathematics education M.A.T. program also includes a required two-part masters-level comprehensive exam in mathematics and mathematics education. At the discretion of the examining committee, this exam may consist of two parts and is both written and oral. The mathematics and mathematics education comprehensive examinations will not duplicate course examinations, but will assess both mathematics education and the mathematics specialization area chosen by the candidate. See Policies for MAT Examination for specific information on comprehensive exams.

**Sample schedule of courses:  
Subtrack (Mathematics Education) degree/post-baccalaureate  
secondary mathematics teaching certification**

We include below a sample schedule for completion of the M.A.T. program. This schedule is designed for a post-baccalaureate student with a B.A. or B.S. equivalent to that of mathematics major at the University of Iowa. There is a total of 49 semester hours of course work.

The two-year possible sample schedule assumes the student already has mathematics coursework equivalent to a University of Iowa Mathematics Major Program A or Program B.

Students with a mathematics degree from an institution different from UI will have their undergraduate transcripts and course work evaluated by UI faculty to determine whether the mathematics degree meets the required course work for a mathematics degree at UI. If not, those students will need to complete additional course work in UI mathematics classes as determined by UI faculty to result in a comparable mathematics background.

<p><b>First Year Fall (10 s.h.)</b>  EPLS:3000 (07B:103 ) Foundations of Education 3 s.h.  EDTL:3090 (07S:190) Orientation to Secondary Education 1 s.h.  EDTL:3095 (07S:195) Teaching Reading Secondary Content Areas 1 s.h.  EDTL:3002 (07E:102) Technology in the Classroom 2 s.h.  PSQF:6200 (07P:200) Educational Psychology 3 s.h.</p>	<p><b>First Year Spring (12 s.h.)</b>  EDTL:3071 (07S:171) Secondary Classroom Management 3 s.h.  EDTL:3534 (07S:134) Methods: Middle School Mathematics 3 s.h.  EPLS:4180 (07B:180) Human Relations for the Classroom Teacher 3 s.h.  EDTL:3532 (07S:133) Introduction and Practicum: Mathematics 3 s.h.</p>
<p><b>Second Year Fall (12 s.h.)</b>  EDTL:4535 (07S:135) Methods: High School Mathematics 3 s.h.  EDTL:4900 (07U:100) Foundations of Special Education 3 s.h.  MATH: Graduate-level mathematics class such as MATH:4120 (22M:107) History of Mathematics,  or MATH:4050 (22M:150) Introduction to Discrete Mathematics or  MATH:4060 (22M:151) Discrete Mathematical Models 3 s.h.  EDTL: Graduate-level mathematics education class such as  EDTL:5535 (07S: 235) Current Issues in Mathematics Education 3 s.h.</p>	<p><b>Second Year Spring (15 s.h.)</b>  (Student Teaching)  EDTL:4087 (07S:187) Seminar Curriculum and Student Teaching 3 s.h.  EDTL:4091 (07S:191) Observ &amp; Lab Prac in Secondary School 6 s.h.  EDTL:4092 (07S:192) Observ &amp; Lab Prac in Secondary School 6 s.h.</p> <p><b>Mathematics and Mathematics Education Comprehensive Exams  Total s.h. 49</b></p>