

**Undergraduate POST-BACCALAUREATE CHECKLIST  
SECONDARY  
MATH CERTIFICATION (Grades 9-12)**



**Education department**

**POST BACCALAUREATE STUDENTS ARE ONLY ELIGIBLE TO TAKE COURSES  
REQUIRED FOR CERTIFICATION. NON-CERTIFICATION COURSES ARE NOT COVERED BY FINANCIAL AID.**

**CONTENT AREA COURSEWORK FOR MATH**

**36 hrs minimum**

Grade	Course #	Course Title	Cr Hrs
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**Calculus and Geometry (9 hrs)**

	MATH 201	Calculus and Analytical Geometry I	5
	MATH 222	Calculus and Analytical Geometry II	5

	MATH 150	College Algebra ( <i>Algebraic Structures 3 hrs</i> ) ( <i>Optional courses for this category: MATH 303 – Linear Algebra [if not used below] or MATH 304 – Introduction to Abstract Algebra</i> )	3
	MATH 331	Foundations of Geometry ( <i>Geometry 3 hrs</i> )	3
	Choose:	CISS 176 - Introduction to Computer Science or CISS 145 - Introduction to Python Programming ( <i>Computer Science 3 hrs</i> )	3
	Electives:	Math Electives: <b>6 hours</b> from the above listed categories. MATH 155 – Algebraic Reasoning for Elementary and Middle School Teachers ( <b>Recommended</b> ) MATH 165 – Geometric Reasoning for Elementary and Middle School Teachers ( <b>Recommended</b> ) MATH 180 – Precalculus MATH 215 – Differential Calculus MATH 226 – Integral Calculus I MATH 235 – Integral Calculus II MATH 304 – Introduction to Abstract Algebra MATH 380 – Advanced Calculus	6

**Minimum twelve (12) hrs from at least three of the following areas:**

	MATH 330	History of Mathematics ( <i>History of Mathematics</i> )	3
	EDUC/MATH 102	Teaching and Learning Elementary Mathematics from an Advanced Perspective ( <i>Structure of the Real/Number System</i> )	3
	MATH 305	Number Theory ( <i>Number Theory 3 hrs</i> )	3
	MATH 300	Multivariate Calculus ( <i>Completion of Calculus Sequence 3 hrs</i> )	3
	Choose:	MATH 250 - Statistics I <b>Recommended</b> , MATH 338 - Mathematical Statistics and Probability, MATH 340 – Introduction to Probability Theory ( <i>Probability and Statistics 3 hrs</i> )	3
	CISS 240	Introduction to Programming ( <i>Computer Science 3 hrs</i> )	3
	MATH 303	Linear Algebra ( <i>Linear Algebra</i> )	3

**NOTE:** Specific courses are listed above as “recommended” because the knowledge gained in these courses will aid in passing the Missouri Content Assessment for Secondary Math.

## Professional Education Coursework

Grade	Course #	Course Title	Cr Hrs	Field Experience (observation hrs) included
	SOCI 270	Diversity and Society	3	none
	EDUC 100	Introduction to Education	3	15 hrs
	EDUC 200	Law, Ethics, and Education	3	none
	EDUC 220	Methods of Teaching English Learners	3	none
	EDUC 230	Educational Psychology	3	none
	EDUC 300	Techniques of Teaching	3	15 hrs
	EDUC 390	Education & Psychology of the Exceptional Child	3	none
	Choose option	EDUC 396 – Child and Adolescent Development; <b>or</b> EDUC 391 - Child Psychology <b>and</b> EDUC 392 – Adolescent Psychology	3	none
<b>Admission to the Teacher Certification Program (See Teacher Certification Program checklist)</b>				
	EDUC 311	Classroom Management Techniques	3	15 hrs
	EDUC 322	Educational Measurement and Assessment	3	none
	EDUC 338	Content Reading and Writing	3	15 hrs
	EDUC 360	Teaching Mathematics in Middle and Secondary School	3	15 hrs
	EDUC 375	Advanced Content Methods	3	15 hrs
	EDUC 376	Adolescent Literacy	3	none
	EDUC 400	Senior Seminar	3	none
<b>Approval for Student Teaching (See Student Teaching Checklist)</b>				
	EDUC 425	Undergraduate Student Teaching	12	16 weeks
		Total Credit Hours	57	
<b>Approval for DESE certification recommendation (See DESE Certification checklist)</b>				

### Retention Criteria:

- Complete at least 6 hours of professional education each year
- Complete Field Experiences and receive favorable evaluations from cooperating teachers and college supervisors
- Maintain a cumulative GPA of 3.0 or above in professional education courses and content area courses

### Other requirements that must be completed prior to certification:

- Successful completion/passing of appropriate Content Area Assessment – MoCA
- Successful completion of program certification performance assessment - MEES

### Other Requirements:

Post Baccalaureate certification students completing the 2022-2023 FAFSA to receive financial aid for certification must complete the following questions on the FAFSA accordingly:

Question #29 – What will your grade level be? – **Student must answer “5<sup>th</sup> year/other undergraduate.”**

Question #30 – What degree or certificate? – **Student must answer “Teaching Credential (non-degree Program).”**

Question #47– Are you a masters or doctorate student? - **Student must answer “No-Not working on a masters/doctorate program.”**