

**MAT 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: 6 hours from the above listed categories. MATH 155 – Algebraic Reasoning for Elementary and Middle School Teachers (Recommended) MATH 165 – Geometric Reasoning for Elementary and Middle School Teachers (Recommended) 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 Recommended , 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

Post Baccalaureates may choose to take the Graduate equivalency to the undergraduate courses required for certification; graduate equivalencies will apply both towards certification and masters’ degree. Ex. EDUC 200 = EDUC 542; 542 will meet certification requirement and apply towards MAT degree. Equivalent courses are in the “Grad Equivalent” column. Note: not all certification courses have graduate equivalencies.

Grade	Course #	Course Title	Cr Hrs	Grad Equivalent	Field Experience (observation hrs) included
	SOCI 270	Diversity and Society	3	EDUC 555	none
	EDUC 100	Introduction to Education*	3	n/a	15 hrs
	EDUC 200	Law, Ethics, and Education (<i>field experience added to 542</i>)	3	EDUC 542	15 hrs in 542
	EDUC 220	Methods of Teaching English Learners (<i>NOTE: if EDUC 542 taken prior to Fall 2020, EDUC 220/520 not required</i>)	3	EDUC 520	none
	EDUC 230	Educational Psychology	3	EDUC 560	none
	EDUC 300	Techniques of Teaching*	3	EDUC 505	15 hrs
	EDUC 390	Education & Psychology of the Exceptional Child	3	EDUC 525	none
	Choose option	EDUC 396 – Child and Adolescent Development; or EDUC 391 – Child Psychology and EDUC 392 – Adolescent Psychology	3	EDUC 550	none
Admission to the Teacher Certification Program (See Teacher Certification Program checklist)					
	EDUC 311	Classroom Management Techniques	3	EDUC 563	15 hrs
	EDUC 322	Educational Measurement and Assessment	3	EDUC 580	none
	EDUC 338	Content Reading and Writing	3	EDUC 516	15 hrs
	EDUC 360	Teaching Mathematics in Middle and Secondary School	3	n/a	15 hrs
	EDUC 375	Advanced Content Methods	3	n/a	15 hrs
	EDUC 376	Adolescent Literacy	3	EDUC 578	none
	EDUC 400	Senior Seminar	3	EDUC 600	none
Approval for Student Teaching (See Student Teaching Checklist)					
	EDUC 425	Undergraduate Student Teaching	12/9	EDUC 698	16 weeks
		Total Credit Hours	51-57		
Approval for DESE certification recommendation (See DESE Certification checklist)					

***If EDUC 300 is taken, EDUC 100 is required; if EDUC 505 is taken, EDUC 100 is not required.**

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 “5th 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.”**

Master of Arts in Teaching (MAT) degree

If you are planning to pursue the MAT degree after certification you will need to relay that information to your Education advisor since that may determine how many certification courses you should take at the graduate level. (In some cases, taking all of the graduate options would result in your taking more than the 36 hours needed for the degree.) The MAT degree requires a total of 36 hours of EDUC coursework at the graduate level which includes 15 hours of core courses (EDUC 500, 504, 508, 555, and 560).