

# B.S.ED. IN MATHEMATICS

*College of Education and Social Work*

## Curriculum

Code	Title	Credits
<b>GENERAL EDUCATION REQUIREMENTS</b> ( <a href="http://catalog.wcupa.edu/undergraduate/general-education-requirements/">http://catalog.wcupa.edu/undergraduate/general-education-requirements/</a> )		
<b>Academic Foundations</b>		
First Year Experience requirement		4
English Composition requirement		6-7
Mathematics requirement		3-4
Interdisciplinary requirement		3
Diverse Communities requirement		3
Ethics requirement		3
<b>Distributed Disciplinary Foundations</b>		
Science requirement		6-8
Behavioral & Social Science requirement		6
Humanities requirement <sup>1</sup>		6
Arts requirement		3
<b>ADDITIONAL BACCALAUREATE REQUIREMENTS</b> ( <a href="http://catalog.wcupa.edu/undergraduate/general-education-requirements/">http://catalog.wcupa.edu/undergraduate/general-education-requirements/</a> )		
<b>University Requirements</b>		
Writing Emphasis requirement		9
Speaking Emphasis requirement		9
<b>Degree Requirements</b>		
Capstone requirement		1-15
<b>MAJOR REQUIREMENTS</b>		
<b>Education Core Courses</b> <sup>2</sup>		
EDF 300	Democracy and Education	3
EDP 280	Developmental and Psychological Perspectives in Education	3
EDA 103	Foundations of Special Education	3
EDA 303	Special Ed: Processes/Procedures for General Educators	2
EDR 347	Literacy Development and Secondary Students with Disabilities in Inclusive Classrooms	3
LAN/ENG 382	Teaching English Language Learners PK-12	3
ERM 355	Ethical and Effective Assessment for Learning 7-12	3
SED 100	An Exploration of Secondary Education	3
SED 200	Learning Environments and Field Experience in Secondary Schools	3
SED 300	Principles of Teaching and Technology in the Secondary Classroom	3
<b>Mathematics Education Requirements</b> <sup>2</sup>		
SED 350	Techniques of Teaching Middle School Mathematics	3
SED 354	Techniques of Teaching Secondary School Mathematics	3
SED 356	Advanced Perspectives of High School Mathematics I	3
SED 357	Advanced Perspectives of High School Mathematics II	3
<b>Mathematics Requirements</b> <sup>2</sup>		

MAT 161	Calculus I	4
MAT 162	Calculus II	4
MAT 200	The Nature of Mathematics	3
MAT 261	Calculus III	4
MAT 311	Linear Algebra	3
MAT 411	Algebra I	3
MAT 421	Mathematical Statistics I	3
MAT 441	Real Analysis I	3
<b>Mathematics - Education Core &amp; Electives</b> <sup>2</sup>		
MAT 331	Foundations of Geometry	3
MAT 343	Differential Equations	3
MAT 401	History of Mathematics	3
6 credits selected from upper-division (300 level or higher mathematics courses; at least one course in applied mathematics)		6
<b>Cognate Requirements</b> <sup>2</sup>		
PHY 170	Physics I	4
CSC 141	Computer Science I	3
<b>Capstone Requirement</b> <sup>2</sup>		
SED 411	Student Teaching Sec - 1st Half <sup>3</sup>	6
SED 412	Student Teaching Sec - 2nd Half <sup>3</sup>	6
<b>Total Minimum Credits Required</b>		<b>127</b>

<sup>1</sup> A LIT course is required for this program.

<sup>2</sup> Courses must be passed with a grade of C- or better

<sup>3</sup> This course fulfills the Capstone requirement.

All students seeking a B.S.Ed. must formally apply for Teacher Candidacy (see Educator Preparation Programs (<http://catalog.wcupa.edu/undergraduate/education-social-work/educator-preparation-programs/>) in this catalog). Only those students who achieve Teacher Candidacy will be eligible to enroll in SED 350.

## Sample Course Plan

To track their individual degree progress, students are advised to access their Degree Progress Report (DPR) via myWCU regularly. For more information, visit [wcupa.edu/DegreeProgressReport](http://wcupa.edu/DegreeProgressReport) (<http://wcupa.edu/degreeprogressreport/>).

The following is a sample suggested course sequence for this program; course offerings and availability are not guaranteed. Students should consult their academic advisor with any questions.

Course	Title	Credits
<b>Year One</b>		
<b>Semester One</b>		
MAT 161	Calculus I	4
CSC 141	Computer Science I	3
WRT 120	Effective Writing I	3
FYE 100X	First Year Experience	4
Humanities Gen Ed (LIT)		3
<b>Credits</b>		<b>17</b>
<b>Semester Two</b>		
MAT 162	Calculus II	4
MAT 200	The Nature of Mathematics	3
SED 100	An Exploration of Secondary Education	3
EDP 280	Developmental and Psychological Perspectives in Education	3
WRT 2XX	200-Level WRT Course	3
<b>Credits</b>		<b>16</b>

<b>Year Two</b>		
<b>Semester Three</b>		
MAT 261	Calculus III	4
MAT 311	Linear Algebra	3
PHY 170	Physics I	4
EDF 300	Democracy and Education	3
EDA 103	Foundations of Special Education	3
<b>Credits</b>		<b>17</b>
<b>Semester Four</b>		
MAT 343	Differential Equations	3
MAT 441	Real Analysis I	3
SED 200	Learning Environments and Field Experience in Secondary Schools	3
SED 356	Advanced Perspectives of High School Mathematics I	3
EDA 303	Special Ed: Processes/Procedures for General Educators	2
Behavioral & Social Science Gen Ed		3
<b>Credits</b>		<b>17</b>
<b>Year Three</b>		
<b>Semester Five</b>		
MAT 411	Algebra I	3
SED 300	Principles of Teaching and Technology in the Secondary Classroom	3
SED 350	Techniques of Teaching Middle School Mathematics	3
SED 357	Advanced Perspectives of High School Mathematics II	3
ERM 355	Ethical and Effective Assessment for Learning 7-12	3
<b>Credits</b>		<b>15</b>
<b>Semester Six</b>		
MAT 331	Foundations of Geometry	3
MAT 421	Mathematical Statistics I	3
SED 354	Techniques of Teaching Secondary School Mathematics	3
LAN 382	Teaching English Language Learners PK-12	3
or ENG 382	or Teaching English Language Learners PK-12	
EDR 347	Literacy Development and Secondary Students with Disabilities in Inclusive Classrooms	3
Behavioral & Social Science Gen Ed		3
<b>Credits</b>		<b>18</b>
<b>Year Four</b>		
<b>Semester Seven</b>		
SED 411	Student Teaching Sec - 1st Half <sup>1</sup>	6
SED 412	Student Teaching Sec - 2nd Half <sup>1</sup>	6
<b>Credits</b>		<b>12</b>
<b>Semester Eight</b>		
MAT 401	History of Mathematics	3
MAT XXX	Applied Math Elective	3
MAT XXX	Math Elective	3
Arts Gen Ed		3
Humanities Gen Ed		3
<b>Credits</b>		<b>15</b>
<b>Total Credits</b>		<b>127</b>

<sup>1</sup> Field course. Clearances required.