



**Secondary Mathematics Education**

Bachelor of Science | Code: S9250 | 120 credits

CIP (1101313111)

Effective Term: Fall Term 2024 (2247)

Upon completion of the Bachelor of Science Degree with a major in Early Childhood Education program, the student will be eligible to obtain a Florida Educator Certification in Pre-school (Birth to Age 4) and Pre-Kindergarten/ Primary (Age 3 to Grade 3) with endorsements in English for Speakers of Other Languages (ESOL), Reading, and Pre-Kindergarten Disabilities.

**GENERAL EDUCATION REQUIREMENTS (36 Credits)**

**COMMUNICATIONS (6.00 credits) \*\***

ENC 1101	English Composition 1	(3 credits)	Prerequisite: Student must meet the Developmental Education reading and Writing Requirements in State Rule 6A-10.0315 (by course, placement score, or eligible exemption).
ENC 1102	English Composition 2	(3 credits)	Prerequisite: ENC 1101

**ORAL COMMUNICATIONS (3.00 credits) \*\***

SPC 1017	Introduction to Communication	(3 credits)
SPC 2608	Introduction to Public Speaking	(3 credits)

**HUMANITIES (6.00 credits) \*\***

Select 1 course from State Core and 1 course from MDC Core.

**State Core: Group A Courses: 3 credits**

ARH 1000	Art Appreciation	(3 credits)	
HUM 1020	Humanities	(3 credits)	
LIT 2000	Introduction to Literature	(3 credits)	Prerequisite: ENC 1101
MUL 1010	Music Appreciation	(3 credits)	
PHI 2010	Introduction to Philosophy	(3 credits)	
THE 2000	Theatre Appreciation	(3 credits)	

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**MDC Core: Group B Courses: 3 credits**

ARC 2701	History of Architecture 1	(3 credits)	
ARC 2702	History of Architecture 2	(3 credits)	
ARH 1000	Art Appreciation	(3 credits)	
ARH 2050	Art History 1	(3 credits)	
ARH 2051	Art History 2	(3 credits)	Prerequisite: ARH 2050
ARH 2740	Cinema Appreciation	(3 credits)	Prerequisite: HUM 1020
DAN 2100	Dance Appreciation	(3 credits)	
DAN 2130	Dance History 1	(3 credits)	
HUM 1020	Humanities	(3 credits)	
IND 1100	History of Interiors 1	(3 credits)	
IND 1130	History of Interiors 2	(3 credits)	
LIT 2000	Introduction to Literature	(3 credits)	Prerequisite: ENC 1101
LIT 2120	A Survey of World Literature 2	(3 credits)	Prerequisites: ENC 1101, ENC 1102 or equivalent
MUH 2111	Survey of Music History 1	(3 credits)	
MUH 2112	Survey of Music History 2	(3 credits)	Prerequisite: MUH 2111
MUL 1010	Music Appreciation	(3 credits)	
MUL 2380	Jazz and Popular Music in America	(3 credits)	
PHI 2010	Introduction to Philosophy	(3 credits)	Prerequisite: ENC 1101
PHI 2600	Introduction to Ethics	(3 credits)	Prerequisite: ENC 1101
THE 2000	Theater Appreciation	(3 credits)	

**MATHEMATICS (6.00 credits) \*\***

Select one State Core course and one MDC Core course. Lab units are not allowed in this area.

**State Core: Group A Courses: 3 credits**

MAC 1105	College Algebra	(3 credits)	Prerequisite: MAT 1033
MAC 2311	Calculus and Analytical Geometry 1	(5 credits)	Prerequisites: MAC 1106 and MAC 1114, or MAC 1140 and MAC 1114, or MAC 1147
MGF 1130	Mathematical Thinking	(3 credits)	Student must meet the Developmental Education mathematics requirements in State Rule 6A-10.0315 (by

STA 2023 Statistical Methods (3 credits)

--AND--

**MDC Core: Group B Courses: 3 credits**

MAC\* MAD\* MAP\*  
MAS\* MGF\* STA 2023  
MTG 2204

course, placement score, or eligible exemption)  
Prerequisite: MAT 1033 or MGF 1131

**Note:** Check with advisor for requisite information.

**NATURAL SCIENCE (6.00 credits) \*\***

Select 1 course from State Core and 1 course from MDC Core.

**State Core: Group A Courses: 3 units**

AST 1002 Descriptive Astronomy (3 credits)  
BSC 1005 General Education Biology (3 credits)  
BSC 2010 Principles of Biology (3 credits)  
BSC 2085 Human Anatomy and Physiology 1 (3 credits)  
CHM 1020 General Education Chemistry (3 credits)  
CHM 1045 General Chemistry & Qualitative Analysis (3 credits)

Pre/Corequisites: BSC 2010L, CHM 1045  
Corequisite: BSC 2085L

Prerequisite: CHM 1025 or a passing score on the CART exam,  
MAC 1105;  
Corequisite: CHM 1045L

ESC 1000 General Education Earth Science (3 credits)  
EVR 1001 Introduction to Environmental Science (3 credits)  
GLY 1010 Physical Geology (3 credits)  
OCE 1001 Introduction to Oceanography (3 credits)  
PHY 1020 General Education Physics (3 credits)  
PHY 2048 Physics with Calculus 1 (3 credits)

Prerequisites: High school physics or PHY 1025, PHY 2053 or  
Departmental Approval and MAC 2311;  
Corequisite: PHY 2048L  
Prerequisite: MAC 1114 or MAC 1147;  
Corequisite PHY 2053L

PHY 2053 Physics without Calculus 1 (3 credits)

--AND--

**MDC Core: Group B Courses: 3 units**

AST 1002 Descriptive Astronomy (3 credits)  
BOT 1010 Botany (3 credits)  
BSC 1005 General Education Biology (3 credits)  
BSC 1030 Social Issues in Biology (3 credits)  
BSC 1050 Biology & Environment (3 credits)  
BSC 1084 Functional Human Anatomy (3 credits)  
BSC 2010 Principles of Biology (3 credits)  
BSC 2020 Human Biology: Fundamentals of Anatomy/  
Physiology (3 credits)

Corequisite: BOT 1010L

Pre/Corequisites: BSC 2010L, CHM 1045

BSC 2085 Human Anatomy and Physiology 1 (3 credits)  
BSC 2250 Natural History of South Florida (3 credits)

Corequisite: BSC 2085L

CHM\* (3 credits)

**Note:** Check with advisor for requisite information.

ESC 1000 General Education Earth Science (3 credits)

EVR 1001 Introduction to Environmental Science (3 credits)

GLY\* (3 credits)

**Note:** Check with advisor for requisite information.

HUN 1201 Essentials of Human Nutrition (3 credits)

MET\* (3 credits)

**Note:** Check with advisor for requisite information.

OCB 1010 Introduction to Marine Biology (3 credits)

OCE\* (3 credits)

**Note:** Check with advisor for requisite information.

PCB 2033 Introduction to Ecology (3 credits)

PHY\* (3 credits)

Prerequisites: BSC 2011 or PSC 1515

PSC 1121 General Education Physical Science (3 credits)

PSC 1515 Energy in the Natural Environment (3 credits)

**Note:** Check with advisor for requisite information.  
Prerequisite: MAT 1033

ZOO 1010 Zoology (3 credits)

Corequisite: ZOO 1010L

**SOCIAL SCIENCE (6.00 credits) \*\***

Select 1 course from State Core and 1 course from MDC Core.

**State Core: Group A Courses: 3 credits**

AMH 2010 History of the US to 1877 (3 credits)  
AMH 2020 History of the US Since 1877 (3 credits)  
POS 2041 American Federal Government (3 credits)

--AND--

**MDC Core: Group B Courses: 3 credits**

DEP 2000 Human Growth and Development (3 credits)  
PSY 2012 Introduction to Psychology (3 credits)

**7. GENERAL EDUCATION ELECTIVES (3.00 credits)**

EEX 2000	Introduction to Special Education	(3 credits)
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**COMPUTER COMPETENCY REQUIREMENT**

Test type(s) needed:

Computer Skills Placement (CSP)

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CGS 1060C	Introduction to Computer Technology & Application	
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**COMMON PREREQUISITES (3.00 credits)**

EDF 1005	Introduction to the Teaching Profession	(3 credits)
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**LOWER DIVISION REQUIREMENTS (18.00 credits)**

MAC 1114	Trigonometry	(3 credits)
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**and**

MAC 1140	Pre-Calculus Algebra	(3 credits)
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**or**

MAC 1147	Pre-Calculus Algebra and Trigonometry	(5 credits)
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**and**

MAC 2311	Calculus and Analytical Geometry 1	(5 credits)
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MAC 2312	Calculus and Analytical Geometry 2	(4 credits)
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MAC 2313	Calculus and Analytic Geometry 3	(4 credits)
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**LOWER DIVISION ELECTIVES (3.00 credits)**

- Electives may include any appropriate transferrable (Credit Type 1 or 2) courses (Check with Advisor).

**PROFESSIONAL EDUCATION CORE (18.00 credits)**

EDF 4430	Measurement and Assessment in Education	(3 credits)
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EDG 3321	General Teaching Skills	(3 credits)
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EDG 3443	Classroom and Behavior Management	(3 credits)
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EEX 3071	Teaching Exceptional and Diverse Populations in Inclusive Settings	(3 credits)
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RED 3393	Differentiated Instruction in Content Reading	(3 credits)
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TSL 4324C	ESOL Strategies for Content Area Teachers	(3 credits)
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**DISCIPLINE CONTENT (30.00 credits)**

MAD 3107	Discrete Structures	(3 credits)
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MAE 3951	Project-Based Learning in Mathematics Education	(2 credits)
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MAE 4360	Methods of Teaching Mathematics	(3 credits)
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MAE 4940	Advanced Topics in Mathematics Education Practicum	(3 credits)
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MAP 2302	Introduction to Differential Equations	(3 credits)
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MAS 3105	Linear Algebra	(3 credits)
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MAS 3301	Algebraic Structures	(3 credits)
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MAS 4203	Number Theory	(3 credits)
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MHF 4404	History of Mathematics	(3 credits)
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MTG 3214	Euclidean Geometry	(4 credits)
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**STUDENT TEACHING/INTERNSHIP (12.00 credits)**

MAE 4942	Seminar in Mathematics Education	(3 credits)
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MAE 4945	Internship in Mathematics Education	(9 credits)
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**Additional Information:**

- Students should check their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. This outline includes current graduation requirements.