

Initial Certification (7-12) MATHED.BA (09/08)

TOTAL PROGRAM REQUIREMENTS = 126 CREDITS	COMPETENCIES (See right column for further details.)							REQUIREMENTS (See right column for further details.)						
	AJ	CR	CS	CC	CT	IT	ME	LC	QL	RP	SL	UD	WI	
I. MAJOR: 39 credits:														
• MTH144 Calculus and Analytic Geometry I (3)					X				X					
• MTH145 Calculus and Analytic Geometry II (3)					X				X					
• MTH246 Linear Algebra (3)														
• MTH254 Calculus and Analytic Geometry III (3)														
• MTH255 Calculus and Analytic Geometry IV (3)														
• MTH264 Discrete Mathematics (3)														
• MTH307 Introduction to Abstract Algebra I (3)														
• MTH310 Methods in Teaching Sec & Mid School Mathematics (3)														
• MTH351 Modern Geometry (3)														
• MTH407 Advanced Calculus I (3)														
• MTH414 Elementary Theory of Probability (3)														
• MTH415 Theory of Mathematical Statistics (3)														
• MTH460 Mathematics Capstone (3)										X			X	
II. ADDITIONAL REQUIREMENTS: 36 credits:														
• EDU203 Learning Theory (3)														
• EDU237 Instructional Design: Theory & Practice (3)														
• EDU313 Foundations of Education (3)														
• EDU314 Promoting English Language Arts Across the Content Areas(3)														
• EDU327 Teaching to the Standards (3)														
• EDU336 Language/Literacy Development for the Adolescent Learner (3)														
• EDU402 Methods in Classroom Management in Secondary Education (3)														
• EDU479-480 St Tchg & Sem at Early Sec and Secondary Level (6/6)														
• SED270 Nature & Educational Needs of Children with Disabilities (3)														
III. CORE CURRICULUM: 45 credits														
<p>▶ All courses taken at Daemen must have a competency. ▶ Only Core Electives may be fulfilled with transfer courses.</p> <p>▶ No courses in the major (Section # I above) are allowed. ▶ 9 credits must be in upper division (UD) (UD=courses with 300/400 number).</p> <p>▶ A maximum of 6 credits of SL may be counted in the core. ▶ If LC includes a course in the major, this is OK but credit for the course will count in the major and not in the core.</p>														
• CMP101 English Composition (3)			X										X	
• CSC201 Introduction to Computer Science (3)						X								
• IND101 Sustainable & Critical Relationships (3)														
• PSY311 Psychology of Adolescence (3)					X							X	X	
• Science (with laboratory): 8 credits in ONE science area to be selected from the options below. Some courses will fulfill competencies +/-or requirements. Consult the Schedules of Course Offerings for details.														
o BIO109/L-110-L General Biology I-II(4/4)														
o CHE110/L-111/L Chemistry I-II (4/4)														
o PHY151/L-152/L General Physics I-II (4/4)														
• SOC243 Child Welfare Policy & Services (3)														
<p>FOREIGN LANGUAGE: Students must demonstrate proficiency in a foreign language at the intermediate level by passing an approved proficiency exam. Depending upon any previous preparation in a foreign language, a sequence of course work may be recommended. See page 2 for language placement guidelines. Regardless of demonstrated level of proficiency, a minimum of 6 credits in ONE foreign language is required of all programs leading to teacher certification. If more than 6 credits of course work must be taken to achieve intermediate level proficiency, the additional credits taken will count as core electives.</p>														
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Core Electives: 16 credits:														
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IV. FREE ELECTIVES: 6 credits:														
<p>▶ Courses used to fulfill the free electives may have a competency but they are not required to have a competency.</p> <p>▶ A maximum of 6 credits may be taken in Mathematics courses.</p>														
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STATUS OF COMPLETION OF COMPETENCIES/REQUIREMENTS:			X		X	X			X	X		3of9	X	

CHECKLIST ON COMPLETION OF PROGRAM REQUIREMENTS:

PROGRAM SUMMARY: On the left is a summary of requirements of this program. Columns are provided to track completion of requirements. An “X” in a column indicates that the course meets a competency, and/or results in credit towards fulfillment of another requirement. Use the columns at left or the checklist below to track progress on completion of the program.

REQUIREMENTS: STUDENTS MUST COMPLETE ALL OF THE FOLLOWING:

- PLEASE NOTE:**
- Competencies and all other requirements may be satisfied anywhere in the student’s program
 - Courses may fulfill more than 1 requirement (Example CMP101 satisfies the CS competency AND 3 credits towards the WI requirement.)
 - Other than the Upper Division core requirement, no transfer courses will satisfy requirements unless approved in writing by the Core Director.

1. COMPETENCIES:
No transfer courses (other than those = to CMP101) will satisfy competencies.

- 3 credits in each of the competencies is required:**
- AJ: Affective Judgment
 - CR: Civic Responsibility
 - CS: Communication Skills
 - CC: Contextual Competency
 - CT: Critical Thinking/Problem Solving
 - IT: Literacy in Info/Multi-Media Tech
 - ME: Moral & Ethical Discernment

2. LEARNING COMMUNITIES (LC): A LC is normally comprised of 2 courses with a common theme. 2 LC’s must be completed. If a LC includes a course in the major, this is OK but credit for the course will count in the major and not in the core.

- LC1: _____
- LC2: _____

3. QUANTITATIVE LITERACY (QL): 3 credits

- 3 credits: : MTH144 Calculus and Analytic Geometry I OR MTH145 Calculus and Analytic Geometry II

4. RESEARCH/PRESENTATION (RP):

- 3 credits: MTH460 Mathematics Capstone

5. SERVICE LEARNING (SL): 3 credits: SL may be satisfied with 1 or multiple courses or SL add-ons:

- 3 credits: _____

6. UPPER DIVISION IN THE CORE: 9 of the credits counted under the Core Curriculum section of this plan must be courses at the 300 and/or 400 level.

- 7. WRITING INTENSIVE (WI): 9 credits:**
- 3 credits: CMP101 English Composition
 - 3 credits: MTH460 Mathematics Capstone
 - 3 credits: PSY311 Psychology of Adolescence

COMMENTS:

**BACHELOR OF ARTS – ADOLESCENCE EDUCATION: MATHEMATICS
INITIAL CERTIFICATION (7-12)**

Following is a suggested course sequence for your program. Courses may be offered as indicated and/or at other times. Consult your Advisor for further direction and planning.

YEAR 1

FIRST SEMESTER	SECOND SEMESTER
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LEARNING COMMUNITIES are generally completed in the first year (LC1 in the 1st semester; LC2 in the 2nd semester)

CMP101 English Composition	3	MTH145 Calculus & Analytic Geometry II	3
CSC201 Introduction to Computer Science I	3	MTH246 Linear Algebra*	3
IND101 Sustainable & Critical Relationships	3	SED270 Intro to Nature & Edu Needs of Children w/Dis	3
MTH144 Calculus & Analytic Geometry I	3	CORE ELECTIVES	6
CORE ELECTIVES	3		
	15		15

* Offered in alternate years.

COURSE LOADS: Maximum of 17 credits allowed for 7 semesters; 1 19-credit hour semester is allowed at no additional tuition charge. Additional course loads are allowed for students who achieve Dean's List. Consult the catalogue for details on the Dean's List privilege.

ADMISSIONS REQUIREMENTS:

A. Three high school units of college preparatory mathematics, though trigonometry.

ADMISSION TO UPPER DIVISION REQUIREMENTS:

A. An overall grade point average (GPA) of 2.0 or better.

B. A grade point average (GPA) of 2.0 or better for Mathematics or Computer Science courses, as appropriate.

YEAR 2

FIRST SEMESTER	SECOND SEMESTER
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EDU203 Learning Theory	3	EDU314 Promoting English Language Arts Across Cont Ar	3
EDU237 Instruc Design: Theory & Practice (See Prog Notes)	3	Language (See Program Notes)	3
Language (See Program Notes)	3	MTH255 Calculus & Analytic Geometry IV	3
MTH254 Calculus & Analytic Geometry III	3	Science (with laboratory) (see page 1 for course options)	4
MTH264 Discrete Mathematics*	3	SOC243 Child Welfare Policy & Services	3
Science (with laboratory) (see page 1 for course options)	4		
	19		16

* Offered in alternate years.

REQUIREMENTS FOR STUDENT TEACHING:

A. An overall grade point average (GPA) of 2.55

B. A grade point average (GPA) of 2.55 in all courses in the major

C. Be recommended for student teaching by the Chairs of Education and Mathematics.

GRADUATION REQUIREMENTS:

A. A minimum grade of 'C' earned in EDU237.

B. An overall quality point average of 2.00

PROGRAM NOTES:

A. **EDU237 Instructional Design:** A student who has earned a "C-" or less in EDU237 in his/her first two attempts will be dismissed from the teacher certification program.

B. **FOREIGN LANGUAGE REQUIREMENT:** Students must demonstrate proficiency in a foreign language at the intermediate level by passing an approved proficiency exam. Depending upon any previous preparation in a foreign language, a sequence of course work may be recommended. **Regardless of demonstrated level of proficiency, a minimum of 6 credits in ONE foreign language is required of all programs leading to teacher certification. If more than 6 credits of course work must be taken to achieve intermediate level proficiency, the additional credits taken will count as core electives.**

LANGUAGE PLACEMENT GUIDELINES: Students will be placed in courses in language studies as follows:

- Placement in course #101: No previous language experience or only 1 year of high school language study
- Placement in course #102: Credit for #101 or 2 years of high school language study
- Placement in course #105: Credit for 102 or 3-4 years of high school language study
- Placement in course #106: 4+ years of high school language study
- Placement in 200-level courses or above: 4+ years of high school language study

NOTE: If a student has 4+ years of high school language (or is a native/heritage speaker), he/she may enroll in #105 and #106 or may take higher level courses. If taking higher level courses, the courses must carry a competency or they cannot count as credit in the core.

YEAR 3

FIRST SEMESTER	SECOND SEMESTER
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EDU336 Language/Literacy Development for Adol Learners	3	EDU402 Methods in Classroom Management in Sec Ed	3
Language/Core Elective (see Program Notes)	3	Language/Core Elective (see Program Notes)	3
MTH307 Introduction to Abstract Algebra	3	MTH310 Methods in Teaching Sec & Mid Sch Math	3
MTH351 Modern Geometry OR		MTH351 Modern Geometry OR	
CORE AND/OR FREE ELECTIVES	3	CORE AND/OR FREE ELECTIVES	3
(see page 1 for suggested course options)		MTH415 Theory of Mathematical Statistics	3
MTH414 Elementary Theory of Probability	3		
	15		15

*Students will take MTH351 in one semester and 3 credits in Core and/or Free Electives in the other semester.

YEAR 4

FIRST SEMESTER	SECOND SEMESTER
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EDU313 Foundations of Education	3	EDU327 Teaching to the Standards	3
MTH407 Advanced Calculus I	3	EDU479 St Teaching & Seminar at Early Secondary Level (7-9)	6
MTH460 Mathematics Capstone	3	EDU480 St Teaching & Seminar at Secondary Level (10-12)	6
PSY311 Psychology of Adolescence (see Program Notes)	3		
CORE AND/OR FREE ELECTIVES	4		
	16		15

N.B.: EDU327 Teaching to the Standards and Student Teaching must be taken together and may be taken in either semester, provided that required courses are planned for offering in the alternate semester.

C. **PREREQUISITE STUDIES:** As in all majors, all prerequisites for courses in the program must be satisfied. In particular, PSY103 Introduction to Psychology (3 credits) may be required as prerequisite to PSY311 Psychology of Adolescence (consult the Psychology Chair). If the course is required, it may be taken as part of the Free Elective credits available in this program.

MATHED.BA

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