

MATHEMATICS, B. S. WITH TEACHER CERTIFICATE

MATHEMATICS TEACHING OPTION (MATT)

(Fall 2017-Summer 2018)

MATHEMATICS BS CORE COURSES (29 credits)

*Note: grades of C- or better required; only one D grade allowed in core or option/3.0 GPA

- _____ 4 MA 16500 Analytic Geometry & Calculus I
_____ 4 MA 16600 Analytic Geometry & Calculus II
_____ 3 MA 17500 Intro Discrete Math or MA 27500 Intermediate Discrete Math
_____ 4 MA 26100 Multivariate Calculus
_____ 3 MA 35100 Elementary Linear Algebra
_____ Approved Science Courses (3 courses): (AST A100, ASTR 26400, 36400, 37000, 40100,
_____ 4 Credits _____ BIOL 10000, 10800, 10900, 11700, 11900, 12600, 12700, 14000, 18300,
_____ 4 Credits _____ BIOL 18400, 19500, 2____, 3____, 4____, or
_____ 3 Credits _____ CHM 10200, 11500, 11600, 18300, 18400, 21800, or
GEOG G107, G109, G237, G315, or
GEOG G100, G103, G104, G108, G113, G121, G2____, G3____, G3____, G4____, or
PHYS 12700, 15200, 2____, 3____ or 4____)
_____ **Lab Check (2 required): (**Note: science labs may overlap with approved science classes)
_____ Lab 1 _____ (BIOL 10001, 10800, 10900, 11700, 11900, 20300, 20400, 21500, 21600,
_____ Lab 2 _____ CHM 11500, 11600, or GEOG G103, G104, L100, or
PHYS 15200, 20100, 21800, 21900, 22000, 22100 or 25100)

MATHEMATICS TEACHING OPTION COURSES (24 credits)

*Note: grades of C- or better required; only one D grade allowed in core or option/3.0 GPA

- _____ 3 CS 11400 Introduction to Visual Basic
_____ 3 MA 30500 Foundations of Higher Math
_____ 3 MA 45300 Algebra I
_____ 3 MA 46000 Geometry
_____ 3 MA 580 History of Mathematics
_____ 3 STAT 51100 Statistical Methods or STAT 51600 Basic Probability and Applications
_____ 6 Credits CS/Math/Statistics Additional Courses: (MA 31400, 36300, 41700, 41800, 51000, 52500, 55600, 57500, 58100,
_____ MA 30000:59999, STAT 49000:59999 or CS 38400)

A&S BS LIBERAL ARTS REQUIREMENTS (14 credits — credits may vary with double counting/language placement – see advisor)

- _____ 3 Second Semester Writing (C- or higher) (ENG W140 or ENG W233)
_____ 3 Speaking Requirement (C- or higher) (COM 11400 or HIST H125)

TEACHING REQUIREMENTS (39 Credits)

*Note: grade of C- or higher in each course & 3.0 EDUC GPA

- _____ 3 EDUC F200 & EDUC M101 Examining Self As Teacher & Lab/Field Experience
_____ 3 EDUC W200 Using Cmptrs Educ (C- or higher)
_____ 3 EDUC H340 Educ & Amer Culture
_____ 3 EDUC K306 Teaching Stud w/ Special Needs
_____ 3/0 EDUC P250 & EDUC M201/M301 Educational Psychology & Lab/Field Experience
_____ 3 EDUC S405 Middle & Jr High School
_____ 3 EDUC P475 Adol Dev & Class Mgmt
_____ 3 EDUC X401 Crit Reading/Cont Area
_____ 3/0 EDUC M448 & EDUC M401 Methods Teaching For HS Math & Lab/Field Experience
_____ 12 EDUC M480/M401 Student Teaching

GENERAL EDUCATION REQUIREMENTS (33 Credits)

*Note: grades of C- or higher required in General Education courses

**Up to 6 credits in Gen Ed GA1 to GB7 and 3 credits GCAP (C8) may originate in major discipline—see advisor for more information.

- _____ 3 GA1 Category A1 -- Written Communication (See Bulletin/myBLUEprint for Gen Ed courses)
_____ 3 GA2 Category A2 -- Speaking and Listening
_____ 3 GA3 Category A3 -- Quantitative Reasoning (**MA 16500)
_____ 3 GB4 Category B4 -- Scientific Ways of Knowing (**see Mathematics Core/science requirements)
_____ 3 GB5 Category B5 -- Social & Behavioral Ways of Knowing
_____ 3 GB6 Category B6 -- Humanistic and Artistic Ways of Knowing
_____ 3 GB7/71 Category B7 or B71 -- Interdisciplinary or Creative Ways of Knowing (**FL11 and FL12 options)
_____ 9 Additional Credits -- Category A or B General Education courses: (FL11/FL112) (ENG W233) (2nd Science)
_____ 3 GCAP Category C8--Capstone Experience (IPFW course only)

IPFW Residency Requirements: _____ 32 credits at 200 level or above at IPFW _____ with 15 of 32 credits at 300-400 in major

B.S. Requirements: _____ 120 credits _____ 30 credits 300-400 level _____ 3.0 GPA Degree/Major _____ C- or above in Major/Gen Ed courses

MATHEMATICS, B. S. WITH TEACHER CERTIFICATE PLAN—MATHEMATICS TEACHING OPTION (MATT)

(Fall 2017-Summer 2018)

Term:		Year:		Term:		Year: 20	
Course No.	Course Title	Pre-Reqs	Crs.	Course No.	Course Title	Pre-Reqs	Crs.
MA 165000 (GA3)	Anlytc Geometry & Calc 1	MA 159 or 154 (C- or above)	4	MA 16600	Anlytc Geometry & Calc II	MA 165 (C- or above)	4
ENG W131 (GA1)	Reading, Writing, & Inquiry	Self-Place or ENG W129 (C- or above)	3	EDUC F200/M101	Examining Self As Teacher/Field Exp		3
GB4 (**see Mathematics Core requirements)	Gen Ed Science/Lab (Approved course)	√	4	GB6	Gen Ed Humanities		3
GB5	Gen Ed Social/Behavior Science		3	GB7	Gen Ed Creat/Interdisc		4
				Science/with Lab (Gen Ed A/B options)	Approved science/lab	*See lab requirement	3
Total Semester Credit Hours			14	Total Semester Credit Hours			17

Term:		Year: 20		Term:		Year: 20	
Course No.	Course Title	Pre-Reqs	Crs.	Course No.	Course Title	Pre-Reqs	Crs.
MA 26100	Multivar Calc	MA 16600, (C- or above)	4	MA 35100	Elem Linear Algebra	2 sem calc (C- or above grades)	3
MA 17500 or MA 27500	Intro Discrete Math or Intermed Discrete Math	√	3	CS 11400	Intro to Visual Basic	C: MA 153	3
COM 11400 or HIST H125 (GA2/A&S)	Fundament of Speech or Great Debates		3	EDUC H340 (Gen Ed A/B)	Educ & Amer Culture		3
ENG W233 (Gen Ed A/B)	Intermed Expos Writing	ENG W131 (C- or above)	3	@ @ (Elective) or Gen Ed A or B	Free elective course or Gen Ed A or B (if needed)		3
EDUC W200	Using Cmptrs in Educ		3	Science (no lab) (Gen Ed A/B options)	Approved Science		3
Total Semester Credit Hours			16	Total Semester Credit Hours			15

Term:		Year: 20		Term:		Year: 20	
Course No.	Course Title	Pre-Reqs	Crs.	Course No.	Course Title	Pre-Reqs	Crs.
MA 46000	Geometry	MA 261 or 263	3	MA 30500	Found of Higher Math	MA 166 & MA 175 (C- or above grades required)	3
STAT 51100 or STAT 51600	Statistical Methods or Basic Probability Appl	√	3	GCAP—MA314	Gen Ed Capstone	√	3
@ @ (Elective) or Gen Ed A or B	Free elective course or Gen Ed A or B (if needed)		3	EDUC K306	Teaching Stud w/ Special Needs	Pre-EDUC/2.7 MA GPA	3
@ @ (Elective)	Free elective		3	EDUC P250/M201	Educational Psychology/Field Exp	Pre-EDUC/2.7 MA GPA	3
Math Elective			3	EDUC S405	Middle & Jr High School	Pre-EDUC/2.7 MA GPA	3
Total Semester Credit Hours			15	Total Semester Credit Hours			15

Term:		Year: 20		Term:		Year: 20	
Course No.	Course Title	Pre-Reqs	Crs.	Course No.	Course Title	Pre-Reqs	Crs.
MA 45300	Elements of Algebra/ Algebra 1	MA 305 and MA 351 (C- or above grades required)	3	EDUC M480/M401	Student Teaching	EDUC Block 2/3.0 major GPA	12
MA 58000	History of Mathematics		3	MA490	Topics in Mathematics		1
EDUC P475	Adol Dev & Class Mgmt	EDUC Block 1	3				
EDUC X401	Crit Reading/Cont Area	EDUC Block 1	3				
EDUC M448/M401	Meth Teach HS Math	EDUC Block 1	3				
Total Semester Credit Hours			15	Total Semester Credit Hours			13

√ = See IPFW Bulletin or myBLUEprint for additional course prerequisites

Summer Courses:

**120 credits required for Bachelor of Science degree
3.0 GPA required for Bachelor of Science with teaching certificate**