

BIOLOGY, B.S.

BIOLOGY (BIOL) MEDICAL TECHNOLOGY (MT)

(Fall 2017-Summer 2018)

BIOLOGY BS CORE COURSES & SUPPORTING COURSES (71 credits) *Note: 2.3 GPA required in BIOL core/2.0 degree GPA

- _____ 4 BIOL 11700 Principles of Ecology & Evolution (C- or higher)
- _____ 4 BIOL 11900 Principles of Structure & Function (C- or higher)
- _____ 1 BIOL 12000 Resource Seminar
- _____ 3 BIOL 21700 Intermediate Ecology
- _____ 4 BIOL 21800 Genetics & Molecular Biology
- _____ 4 BIOL 21900 Principles of Functional Biology
- _____ 3 BIOL 49100 Senior Biology Seminar
- _____ **Group A Elective with Laboratory** (select 1 course/lab)
 - _____ 3 ENTM 20600 and 20700 General Applied Entomology and Lab
 - _____ 3-4 Biology with Lab included: BIOL 34500, 43400, 44500, 50100, 50500, 54300, 57900, 59800 or 59500
- _____ **Group B Elective with Laboratory** (select 1 course/lab)
 - _____ 4 BIOL 50900 and 58400 Molecular Biology & Applications and Lab
 - _____ 4 BIOL 53700 and 56500 Immunobiology and Lab
 - _____ 4 BIOL 56600 and 56700 Developmental Biology and Lab
 - _____ 4 Biology Course/Lab: BIOL 21500, 31500, 35000 or 43700
- _____ **9 Additional (approved) credits A/B Electives** (16 Credits A/B Lab/Elect required): (See Bulletin or myBLUEprint)
 - _____ 3 or BIOL or ENTM or FNR _____ (BIOL 215, 315, 335, 345, 350, 381, 434, 437, 438, 439, 445, 501, 502, 505, 506, 509, 515, 516, 51810, 520, 52410, 52710, 533, 537, 540, 543, 544, 551, 556, 559, 565, 566, 567, 577,579, 57810, 580, 582, 584, 586, 592, 598, 595; or ENTM 206, 207; or FNR 505, 523)
 - _____ 3 or BIOL or ENTM or FNR _____
 - _____ 3 or BIOL or ENTM or FNR _____

SUPPORTING CHEMISTRY, MATH & PHYSICS

- _____ 4 PHYS 22000 General Physics
- _____ 4 PHYS 22100 General Physics
- _____ 4 CHM 11500 General Chemistry (C- or higher)
- _____ 4 CHM 11600 General Chemistry (C- or higher)
- _____ 4 CHM 25500/CHM 25400 or CHM 26100/CHM 25400 Organic Chemistry and Lab
- _____ 4 CHM 25600/CHM 25800 or CHM 26200/CHM 25800 Organic Chemistry and Lab
- _____ 4 Credits in MA 16500 Analytic Geometry & Calculus I or 3 Credits in MA 22900 Calc for Mang, Soc, & Bio Sciences
- _____ 3 STAT 24000 Statistical Methods for Biology
- _____ 3 STAT 34000 Elem Statistical Methods II

A&S 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)
 - _____ 8 Credits Language Sequence (credit/placement required for 2 semesters of foreign language)
 - _____ FL 11 _____ FL 12 (one course at second semester level required)
- Options: (Arabic, French, German, Japanese, Latin, Spanish)

GENERAL EDUCATION REQUIREMENTS (33 Credits)

*Note: grades of C- or higher required in Gen Ed/2.0 GPA

****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 or myBLUEprint for **General Education** courses)
- _____ 3 GA2 Category A2 -- Speaking and Listening
- _____ 3 GA3 Category A3 -- Quantitative Reasoning
- _____ 3 GB4 Category B4 -- Scientific Ways of Knowing
- _____ 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
- _____ 9 Additional Credits -- Category A or B General Education courses
- _____ **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 _____ 2.3 GPA Major/2.0 Degree/Gen Ed _____ C- or above in Major/Gen Ed

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(Fall 2017-Summer 2018)

Term: Year: 20				Term: Year: 20			
Course No.	Course Title	Pre-Reqs	Crs.	Course No.	Course Title	Pre-Reqs	Crs.
BIOL 11700	Prin of Ecol & Evol	Placement at or above MA 153	4	BIOL 11900	Principles of Structure & Function	Placement at or above MA 153	4
CHM 11500 (GB4)	General Chemistry	H.S. CHM or CHM 111 (C- or above); MA 154, 227, 229 level	4	CHM 11600	General Chemistry	CHM 115 (C- or above); MA 163, 165, 227, or 229 level	4
ENG W131 (GA1)	Reading, Writing, & Inquiry	Self-Place or ENG W129 (C- or above)	3	ENG W233 (Gen A/B)	Intermed Expos Writing	ENG W131 (C- or above)	3
BIOL 12000	Resource Seminar	Recommended first semester course	1	GB5	Gen Ed Social/Behavior		3
MA 22900 (GA3)	Calc Mnge Soc Biol I	MA 153	3	COM 11400 or HIST H125 (GA2/A&S)	Fundament of Speech or Great Debates		3
Total Semester Credit Hours			15	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.
BIOL 21700	Intermediate Ecology	BIOL 117 & 119 (C- or above)	3	BIOL 21800	Genetics & Molecular	BIOL 117 & 119 (C- or above); CHM 116 or permission	4
CHM 25500	Organic Chemistry	CHM 116; C: CHM 254	3	CHM 25600	Organic Chemistry	CMH 255; C:CHM 258	3
CHM 25400	Organic Chemistry Lab	C: CHM 255	1	CHM 25800	Organic Chemistry Lab	CHM 254; C: CHM 256	1
GB6	Gen Ed Hum/Artistic		3	STAT 24000	Stat Methods Biology	MA 153 (C- or above)	3
FL 11	Foreign Language 1		4	FL 12	Foreign Language 2	FL 11/placement	4
Total Semester Credit Hours			14	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.
BIOL 21900	Principles of Funct Biol	BIOL 117 & 119 (C- or above); CHM 116 or permission	4	PHYS 22100	Gen Physics	PHYS 220	4
PHYS 22000	Gen Physics	MA 153	4	Gen Ed A/B	Gen Ed A or B course		3
STAT 34000	Elem Stat Methods II	STAT 240, 301, 307, or ECON 270 or PSY 201 (C- or above)	3	BIOL A/B – Lab	Approved BIOL A/B Elective with Lab	√	3-4
BIOL A/B – Lab	Approved BIOL A/B Elective with Lab	√	3-4	BIOL A/B Elective	Approved BIOL Elective	√	3-4
Free elective	Free elective		3-4				3
Total Semester Credit Hours			17-18	Total Semester Credit Hours			13-15

Term: Year: 20				Term: Year: 20			
Course No.	Course Title	Pre-Reqs	Crs.	Course No.	Course Title	Pre-Reqs	Crs.
GB7/71	Gen Ed Creat/Interdis (if needed or elective)		3	BIOL 49100 (GCAP)	Senior Biology Seminar	BIOL 217, 218, or 219; Senior	3
Free elective	Free elective		3	Free elective	Free elective		3
Free elective	Free elective		3	Free elective	Free elective		3
Gen Ed A/B	Gen Ed A or B course (if needed or elective)		3-4	BIOL A/B Elective	Approved BIOL Elective	√	3-4
Total Semester Credit Hours			15-16	Total Semester Credit Hours			12-13

√ = See IPFW Bulletin or myBLUEprint for additional course prerequisites