

CHEMISTRY, B.S.C.

CHEMISTRY OPTION (CHEC)

(Fall 2017-Summer 2018)

CHEMISTRY BSC COURSES & SUPPORTING COURSES (83 credits) *Note: 2.0 CHM GPA required/2.0 CHM GPA in 300+ courses

*Program fulfills recommendations of the Committee on Professional training of the American Chemical Society (ACS), and B.S.C. graduates are certified.

- _____ 1 CHM 19400 Freshman Chemistry Orientation
- _____ 4 CHM 11500 General Chemistry
- _____ 4 CHM 11600 General Chemistry
- _____ 4 CHM 24100 Intro Inorganic Chemistry
- _____ 3 CHM 26100 Organic Chemistry
- _____ 2 CHM 26500 Organic Chemistry Lab
- _____ 3 CHM 26200 Organic Chemistry
- _____ 2 CHM 26600 Organic Chemistry Lab
- _____ 1 CHM 28000 Chemical Literature
- _____ 4 CHM 32100 Analytical Chemistry I
- _____ 3 CHM 34200 Inorganic Chemistry
- _____ 2 CHM 37600 Physical Chemistry Lab
- _____ 4 CHM 38300 Physical Chemistry
- _____ 2 CHM 38400 Physical Chemistry
- _____ 4 CHM 42400 Analytical Chemistry II
- _____ 1 CHM 49600 (0) Advances in Chemistry I **and** CHM 49700 (1) Advances in Chemistry II
- _____ 4 MA 16500 Analytic Geometry & Calculus I
- _____ 4 MA 16600 Analytic Geometry & Calculus II
- _____ 4 MA 26100 Multivariate Calculus
- _____ 5 PHYS 15200 Mechanics
- _____ 5 PHYS 25100 Heat, Electricity and Optics

BSC CHEMISTRY OPTION

- _____ 1 CHM 34300 Inorganic Chemistry Lab
- _____ 3 CHM 53300 Introductory Biochemistry
- _____ 3 Credits **CHM** Elective (CHM 3__, 4__, or 5__) (See Bulletin or myBLUEprint for **CHM** elective courses)
- _____ 3 MA 35100 Elementary Linear Algebra
- _____ 3 MA 36300 Differential Equations
- _____ 3 PHYS 34200 Modern Physics
- _____ 1 PHYS 34300 Modern Physics Lab

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)
- _____ 8 Credits Language Sequence (credit/placement required for 2 semesters of foreign language)
_____ (1st) _____ (2nd) 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)

MINOR/ELECTIVES (to reach 120 credits): _____

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

B.S.C. Requirements: _____ 120 credits _____ 30 credits 300-400 level _____ 2.0 GPA Degree/Major/Gen Ed _____ C- or above in Gen Ed

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PLAN—CHEMISTRY OPTION (CHEC)
(Fall 2017-Summer 2018)

Term: Year: 20				Term: Year: 20			
Course No.	Course Title	Pre-Reqs	Crs.	Course No.	Course Title	Pre-Reqs	Crs.
CHM 19400	Freshmen CHEM orient		1	PHYS 152	Mechanics	C: MA 166	5
ENG W131 (GA1)	Reading, Writing, & Inquiry	Self-Place or ENG W129 (C- or above)	3	MA 16600	Analytic Geometry & Calculus II	MA 165 (C- or above)	4
MA 165000 (GA3)	Analytic Geometry & Calculus 1	MA 159 or 154 (C- or above); placement	4	CHM 11600	General Chemistry	CHM 115 (C- or above); MA 163, 165, 227, or 229 level	4
CHM 11500 (GB4)	General Chemistry	H.S. CHM or CHM 111 (C- or above); MA 154, 227, 229 level	4	FL 2 nd semester	Foreign Language 2	FL 1/ placement	4
FL 1 st semester	Foreign Language 1		4				
Total Semester Credit Hours				Total Semester Credit Hours			
16				17			

Term: Year: 20				Term: Year: 20			
Course No.	Course Title	Pre-Reqs	Crs.	Course No.	Course Title	Pre-Reqs	Crs.
CHM 26100	Organic Chemistry	CHM 11600	3	PHYS 25100	Heat, Electricity, and Optics	PHYS 152 (C- or above); P or C: MA 261	5
CHM 26500	Organic Chemistry Lab	C: CHM 261	2	CHM 26200	Organic Chemistry	CHM 261	3
MA 26100	Multivariate Calculus	MA 166 (C- or above)	4	CHM 26600	Organic Chemistry Lab	CHM 265; C: CHM 262	2
CHM 24100	Intro Inorganic Chemistry	CHM 116; MA 165 or 229	4	MA 35100	Elem Linear Algebra	2 sem calc (C- or above grades)	3
				GB5	Gen Ed Social/Behavior		3
Total Semester Credit Hours				Total Semester Credit Hours			
13				16			

Term: Year: 20				Term: Year: 20			
Course No.	Course Title	Pre-Reqs	Crs.	Course No.	Course Title	Pre-Reqs	Crs.
CHM 32100	Analytical Chemistry I	1 year of organic chemistry	4	CHM 34200	Inorganic Chemistry	CHM 241; C: CHM 384	3
CHM 38300	Physical Chemistry	CHM 116; MA 261; PHYS 251	4	CHM 37600	Physical Chemistry Lab	CHM 384	2
COM 11400 or HIST H125 (GA2/A&S)	Fundament of Speech or Great Debates		3	CHM 38400	Physical Chemistry	CHM 383	2
MA 36300	Differential Equations	√	3	CHM 42400	Analytical Chemistry II	CHM 321; P or C: CHM 383	4
CHM 28000	Chemical Literature	CHM 251 or 255 or 261	1	ENG W233	Intermed Expos Writing	ENG W131 (C- or above)	3
Total Semester Credit Hours				Total Semester Credit Hours			
15				14			

Term: Year: 20				Term: Year: 20			
Course No.	Course Title	Pre-Reqs	Crs.	Course No.	Course Title	Pre-Reqs	Crs.
CHM 49600	Senior Seminar I	CHM 280	0	CHM 49700	Senior Seminar II	√	1
CHM 53300	Intro Biochemistry	CHM 256 or 262	3	CHM 34300	Inorganic Chemistry Lab	CHM 218; C: CHM 384	1
CHM Elective (300+ level)	Chemistry Elective (300-level or above)	√	3	PHYS 34200	Modern Physics	PHYS 241 or 251 or 261; C: PHYS 342	3
GB6	Gen Ed Hum/Artistic		3	PHYS 34300	Modern Physics Lab	C: PHYS 342	1
GCAP (c8)	Gen Ed Capstone	√	3	Elective	Free elective		3
Elective	Free elective		3	Elective	Free elective		3
				Elective	Free elective		2
Total Semester Credit Hours				Total Semester Credit Hours			
15				14			

√ = See IPFW Bulletin or myBLUEprint for additional course prerequisites

Summer Courses:

120 credits required for Bachelor of Science degree
2.0 GPA required for Bachelor of Science degree/major