

CHEMISTRY, B.S.

CHEMISTRY (CHEM)

(Fall 2017-Summer 2018)

CHEMISTRY BS COURSES & SUPPORTING COURSES (66 credits) *Note: 2.0 CHM GPA required/2.0 CHM GPA in 300+ courses

***The Bachelor of Science with a major in chemistry program is appropriate for premedical and pre dental students and as preparation for other careers. Appropriate electives and further education allows you to combine chemistry with other fields that support a variety of careers. See chemistry advisor.**

- _____ 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

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. 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 (CHEM)
(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 CHM 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 1st semester	Foreign Language 1		4				
Total Semester Credit Hours			16	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.
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	ENG W233	Intermed Expos Writing	ENG W131 (C- or above)	3
				GB5	Gen Ed Social/Behavior		3
Total Semester Credit Hours			13	Total Semester Credit Hours			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 384; MA 261; PHYS 251	2
GB6	Gen Ed Hum/Artistic		3	Elective	Free elective		3
CHM 28000	Chemical Literature	CHM 251 or 255 or 261	1	Elective	Free elective		3
				Elective	Free elective (if needed/120 credits)		*1
Total Semester Credit Hours			15	Total Semester Credit Hours			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 42400	Analytical Chemistry II	CHM 321; P or C: CHM 383	4
GCAP (C8)	Gen Ed Capstone	√	3	CHM 49700	Senior Seminar II	√	1
Elective	Free elective		3	Elective	Free elective		3
Elective	Free elective		3	Elective	Free elective		3
Elective	Free elective		3	Elective	Free elective		3
Elective	Free elective		3				
Total Semester Credit Hours			15	Total Semester Credit Hours			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