With a Concentration in Material Science

THIS SHEET APPLIES FALL 2016
Additional information can be found at www.chem.wayne.edu. (TRANSFER STUDENTS: You must earn a minimum of 15 chemistry credits at WSU. Check transferred chemistry courses with an advisor to prevent problems at graduation.)

NON-CHEMISTRY REQUIREMENTS

ANY FOREIGN LANGUAGE: □ 1010(4) □ 1020(4) □ 2010(4)
MATHEMATICS: □ 2010(4) □ 2020(4) □ 2030(4) □ 2150 or 2250 or 2350(3-4)
[NOTE: A math placement exam is required prior to enrolling in MAT 201. Contact the Testing Office (577-3400) for dates and arrangements. Both MAT 2250 & 2350 are recommended.]

PHYSICS: math 2020 coreq □ 2170(4) □ 2171(1) □ 2180(4) □ 2181(1)
ALL students who transfer in less than 10 hrs physics should check with a chemistry advisor.

BASIC ENGINEERING: □ 1300(3) □ 1310(1)

CHEMISTRY & MATERIAL SCIENCE COURSES

GENERAL/ORGANIC CHEMISTRY:
□ 1220(4) or 1225(3)/1230(1) or [1070(4) OR 1050(6) OR 1310(5) or 1410(5)]
□ 1240(4)/1250(1) or [2240(4) OR 2310(4) or 1410(5)]
□ 2220(4)/2230(1) or [2260(4)/2270(2) or 2320(4)/2270(2) or 1420(5)]

GENERAL/ANALYTICAL CHEMISTRY: if you have taken 1080 but not 3120, please see an advisor
□ 2280(3)/2290(2) or [1080(5) AND 3120(4) OR 1320(5)]
□ 5160(3)[F only]
□ 5570(3)[W only]

INORGANIC CHEMISTRY:
□ 3020(3)[W only] □ 5020(3)[F only]

PHYSICAL CHEMISTRY:
□ 5420(3)[F only] □ 5440(4)[W only]
Physical Lab: □ 5550(2)[F,W] “Coreq or Prereq: Chem 54X0”

BIOCHEMISTRY:
□ 5600(3)[F,W]

MATERIAL SCIENCE:
□ CHM 6060 or MSE 5550(3)[F only] □ MSE 5650(3)[W only]

RESEARCH IN CHEMISTRY: □ 5999(min. 2; max 4)[All] [NOTE: Start Research Project no later (sooner the better) than the 1ST SEMESTER OF SENIOR YR.] To sign up for research, make an appointment with Dr. Linz in 367 Chemistry. Email him at tlinz@chem.wayne.edu. For additional information, consult the Department WebPage. You must file an Undergraduate Research Form and present a written report signed by the Chairman of the Department of Chemistry in order to obtain a grade for your work. With prior approval, students may substitute 2 credits of an internship experience (CHM 6991).

B.S. WITH HONORS:
Students wishing to earn a B.S. in Chemistry degree with Honors must see Dr. Linz (367 Chemistry).
(see back for sample schedule and additional graduation requirements)
# Degree Requirements for BS in Chemistry at Wayne State University

## Freshman Year

### Fall Semester
- CHM 1220/1230 - (PS) General Chemistry I  
- 5 credits
- English 1020 - (BC) Introductory College Writing  
- 3 credits
- Mathematics 2010 - Calculus I  
- 4 credits
- Competency Requirement  
- 3 credits
- Total: 15 credits

### Winter Semester
- CHM 1240/1250 - Organic Chemistry I  
- 5 credits
- Intermediate Composition (IC)  
- 3 credits
- Mathematics 2020 - Calculus II  
- 4 credits
- Life Science Requirement (LS)  
- 3 credits
- Total: 15 credits

## Sophomore Year

### Fall Semester
- CHM 2220/2230 - Organic Chemistry II  
- 5 credits
- Physics 2170/2171 - (PS) General Physics I  
- 5 credits
- Mathematics 2030 - Calculus III  
- 4 credits
- Competency Requirement  
- 3 credits
- Total: 17 credits

### Winter Semester
- CHM 2280/2290 - General Chemistry II/ Analytical  
- 5 credits
- Physics 2180/2181 - General Physics II  
- 5 credits
- MAT 2150 (or 2250 or 2350)  
- 3-4 credits
- Group Requirement  
- 3 credits
- Total: 16-17 credits

## Junior Year

### Fall Semester
- CHM 5420 - Physical Chemistry I  
- 3 credits
- BE 1300 & 1310 - Materials Science & Lab  
- 4 credits
- CHM 5600 - Survey of Biochemistry  
- 3 credits
- Language I  
- 4 credits
- Group Requirement  
- 3 credits
- Total: 17 credits

### Winter Semester
- CHM 5440 - Physical Chemistry II  
- 4 credits
- CHM 5550 - (WI) Physical Chemistry Laboratory  
- 2 credits
- CHM 3020 - Intermediate Inorganic Chemistry I  
- 3 credits
- CHM 5999 - Research in Chemistry  
- 2 credits
- Language II  
- 4 credits
- Total: 18 credits

## Senior Year

### Fall Semester
- CHM 5020 - Intermediate Inorganic Chemistry II  
- 3 credits
- CHM 6060 or MSE 5350 - Mater. Chem. Eng. or Polymer Sci.  
- 3 credits
- CHM 5160 - Instrumental Analytical Chemistry  
- 3 credits
- Language III  
- 4 credits
- Group Requirement  
- 3 credits
- Total: 16 credits

### Winter Semester
- MSE 5650 - Surface Science  
- 3 credits
- CHM 5570 - Instrumental Analytical Chemistry Lab  
- 3 credits
- Group Requirements  
- 9 credits
- Total: 15 credits

All College of Liberal Arts and Science students must maintain at least a 2.0 overall gpa. All Chemistry Majors must earn a grade of "C" or above in all chemistry prerequisite courses and the writing intensive course (CHM 5550). Chemistry Majors must also maintain at least a 2.0 chemistry gpa.