

**Freshman Year (CSCC)**

Autumn Semester		Spring Semester	
ENGL 1100 Composition I [INST 1500, WI]	3	MATH 1152 Calculus II [MATH 1800]	5
MATH 1151 Calculus I [MATH 1700]	5	ENGL 2767 Writing About Science & Tech. [DS]*	3
CHEM 1171 General Chemistry I [CHEM 1400/1410]**	5	CHEM 1172 General Chemistry II [CHEM 1500/1510]**	5
COLS 1100 First Year Experience Seminar	1	ANTH 2202, GEOG 2400, SOC 1101, <u>or</u> SOC 2380 (choose one) [INST 2000]*	3
Historical Study [INST 2800]*	3	<b>Literature, Cultures &amp; Ideas, Visual/Performing Arts [INST 2600]***</b>	<b>3</b>
Total hours	17	Total hours***	19

**Sophomore Year (CSCC)**

Autumn Semester		Spring Semester	
PHYS 1250 Calculus-Based Physics I [PHYS 1500, DS]	5	PHYS 1251 Calculus-Based Physics II [PHYS 1600, DS]	5
CHEM 2251 Organic Chemistry I [CHEM 2400]**	5	CHEM 2252 Organic Chemistry II [CHEM 2500]**	5
CHEM 2254 Organic Chemistry I Lab [CHEM 2410]**	3	CHEM 2255 Organic Chemistry II Lab [CHEM 2510]**	3
MATH 2153 Calculus III [MATH 2700]	5	Social & Behavioral Science*	3
Total hours	18	Total hours	16

\*Course options listed after degree notes \*\*Courses must be completed with a grade of C or higher to transfer to the Otterbein Chemistry Major. Courses number in [brackets] is the Otterbein equivalent course. WI=Writing Intensive; three are required for an Otterbein degree. DS=Disciplinary Skills; three are required for an Otterbein Degree

**Junior Year (Otterbein)**

Autumn Semester		Spring Semester	
LFW Lifestyle, Fitness & Wellness Course	1	INST 2200 <u>or</u> 2400 (choose one)	3
FYS First Year Seminar <u>or</u> TYS Transfer Year Seminar (choose one)	2-3	BMB 2650 Intro. to Biochemistry Laboratory Techniques	1
CHEM 3100 Analytical Chemistry	3	CHEM 3200 Inorganic Chemistry <u>or</u> CHEM 3400 Physical Chemistry	3
CHEM 3110 Analytical Chem. Laboratory (WI)	1	CHEM 3210 Inorganic Chem. Laboratory (WI) <u>or</u> CHEM 3410 Physical Chem. Laboratory (WI)	1
INST 2200 <u>or</u> 2400 (choose one)	3	Chemistry Major Elective	3-4
CHEM 3000 Junior Seminar	0.5	CHEM 3000 Junior Seminar	0.5
Elective	3	Elective	3
Total hours	13.5-14.5	Total hours	14.5-15.5

**Senior Year (Otterbein)**

Autumn Semester		Spring Semester	
BMB 4500 Biochemistry I: Biomolecules & Metabolism	3	Writing Intensive Elective (CHEM 4500, BMB 4610 <u>or</u> other WI course)	1-3
INST 3000 Integrative Seminar	3	CHEM 3950 Research	1-2
Chemistry Major Elective <sup>#</sup>	3	SYE Senior Year Experience	3
CHEM 4000 Senior Seminar	0.5	CHEM 3210 Inorganic Chem. Laboratory (WI) <u>or</u> CHEM 3410 Physical Chem. Laboratory (WI)	1
Elective	3	CHEM 3200 Inorganic Chemistry <u>or</u> CHEM 3400 Physical Chemistry	3
Elective	3	Chemistry Major Elective <sup>#</sup>	3
Total hours	15.5	Total hours	12-15

- At Otterbein, at least 36 credit hours of coursework must be taken in Otterbein classes. Of these hours: at least 9 credit hours must be taken in each of a student's majors at the 3000 level or above, at least 5 credit hours (any level) must be taken in each minor, and at least one INST 2XXX thread course, INST 3XXX, and an SYE course must be taken at Otterbein. Otterbein requires 120 credit hours to complete the bachelor's degree with an overall GPA of 2.0 or higher.
- \*\*Students must earn a C or higher in all prerequisite and major course work for the Chemistry major (BS) at Otterbein.** Classes denoted by the double asterisk are prerequisite/major courses for the Chemistry major (BS). Students are encouraged to meet with an Otterbein advisor regarding their major course work and general education course work meant to satisfy Otterbein's general education or INST requirement.  
  
The Chemistry major (BS) at Otterbein University requires calculus-based physics course sequence (PHYS 1250 and 1251 at CSCC) and single-variable calculus sequence (MATH 1151 and 1152 at CSCC). A multivariable calculus course is not required for the major at Otterbein. Completing this course (MATH 2153 at CSCC) as part of their AS Chemistry Bachelor's Degree Transfer Major degree at Columbus State, this course will transfer to Otterbein University as MATH 2700: Multivariable Calculus- a degree elective. Students must complete CHEM 1171, 1172, 2251, 2252, 2254, and 2255 to satisfy the requirements for the AS Chemistry Bachelor's Degree Transfer Major.  
  
The Chemistry major (BS) requires 7 credit hours of CHEM major electives chosen from: BMB 4600 & 4610; CHEM 3500, CHEM 3800, CHEM 4400, CHEM 4700, and CHEM 4800.
- CSCC Degree Plan:** This Sample Plan of Study was created with the assumption that students would complete the Chemistry Bachelor's Degree Transfer Major before transferring into the stated bachelor's degree. Completing the general Associate of Science degree is also an option and this document can still be used for degree planning. If you have questions, contact a Columbus State Arts and Sciences Academic Advisor and an advisor at Otterbein University.
- \*\*\*Students can only take 19 hours or more per semester** with permission from a Columbus State Arts and Sciences Academic Advisor. Students must have a GPA of 3.0 or higher and be in full-time course work when permission is sought. Students can find an Arts and Sciences Academic Advisor in Union Hall Room 048K. Students may also take this course during the summer term to lighten the load indicated on this plan.
- #At least one chemistry major elective must come from CHEM 4200, 4300, or 4500.

### **Suggested Courses to Complete for Otterbein's General Education Requirements and Requirements for the Associate of Arts Degree at Columbus State\***

#### **Intermediate Composition**

*It is recommended that students complete ENGL 2767 for this requirement. However, students may choose from any of the additional options below to complete this requirement instead of ENGL 2767:*

ENGL 2367	Composition II	ENGL 2667	Comp II: Working Class Identity
ENGL 2467	Comp II: Race & Ethnicity	ENGL 2767	Comp II: Writing About Science & Tech
ENGL 2567	Comp II: Gender & Identity		

#### **For the Historical Study requirement, please choose from the courses below: [INST 2800]**

HIST 1111	European History to 1648	HIST 1182	World Civilization II since 1500
HIST 1112	European History since 1648	HIST 2715	Western Medicine I to 1700
HIST 1181	World Civilization I to 1500	HIST 2716	Western Medicine II since 1700

#### **For the Literature, Cultures & Ideas, Visual/Performing Arts requirement, please choose from the courses below: [INST 2600]**

ENGL 2274	Intro to Non-Western Literature	HUM 1100	Intro to the Humanities
ENGL 2276	Women in Literature	HUM 1160	Music & Art Since 1945
ENGL 2280	The English Bible as Literature	MUS 1251	Survey of Music History
ENGL 2281	African American Literature	THEA 1100	Intro to Theatre

#### **Social & Behavioral Sciences [INST 2000]**

*For the AS degree, students must complete two Social & Behavioral Sciences courses from two different departments. One course must be completed from ANTH 2202, GEOG 2400, SOC 1101, or SOC 2380. The second course must be chosen from the list on the AS Chemistry Bachelor's Degree Transfer Major plan of study from a different academic department from the previous course.*