

ACADEMIC PATHWAYS



**Sinclair College –Associate of Science Degree in Chemistry
To
University of Dayton – Bachelor of Science
Major – Biochemistry**

SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOUR	UD COURSE #
CHE	1211*	General Chemistry I	5 (UD 4)	CHM 1GF+1GFL
CHE	1221*	General Chemistry II	5 (UD 4)	CHM 1GS+1GSL
CHE	2111	Organic Chemistry I	5 (UD 4)	CHM 313 + CHM 313L
CHE	2121	Organic Chemistry II	5 (UD 4)	CHM 314 + CHM 314L
COM	2206 or 2211**	Interpersonal Communication Effective Public Speaking	3	CMM 320 or CMM 351
ENG	1101	English Composition I	3	ENG 100
ENG	1201	English Composition II	3	ENG 200
HIS	1112	Western Civilization II	3	HST 103
MAT	2270	Calculus & Analytic Geometry I	5 (UD 4)	MTH 168
MAT	2280	Calculus & Analytic Geometry II	5 (UD 4)	MTH 169
MAT PHY	2290 or 1141***	Calculus & Analytic Geometry III College Physics I	4-5 (UD 4)	MTH 218 or PHY 201+201L
MET	1131	Personal Computer Applications for Engineering Technology	1	CPS 1XX
PHI	2205 or 2206	Introduction to Philosophy Introduction to Ethics	3	PHL 103
PSY	1100****	General Psychology	3	PSY 101
SCC	1101	First Year Experience	1	ASI 150
SOC	1101****	Introduction to Sociology	3	SOC 101
SOC	1145	Introduction to Cultural Anthropology	3	ANT 150
TOTAL			60-61 (UD 54)	

- **This Associate of Science in Chemistry from Sinclair College is designed for students considering a major in Biochemistry, Chemistry (Bachelor of Arts or Bachelor of Science), or Medicinal-Pharmaceutical Chemistry program at UD.**
- ***Completion of both CHE 1211 and CHE 1221 are required for transfer credit. Consult with Sinclair College Advisor for course sequencing.**
- ****COM 2206 or 2211 will meet the communication requirement at the University of Dayton with the completion of the Associate Degree. This exception applies to only UD-**

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Sinclair Academy students. Consult with your UD advisor if you are eligible for this exception.

- *****MAT 2290 (equivalent to MTH 218 at UD) is required for only Biochemistry (BS) and Chemistry (BS) majors. Students interested in Medicinal-Pharmaceutical Chemistry (BS) or Chemistry (BA) program should take PHY 1141, instead, to complete an associate degree at Sinclair.**
- ******PSY 1100 or SOC 1101 will meet the social science integrated course requirement at the University of Dayton with the completion of the Associate Degree.**
- **124 hours minimum are required for a BA degree and 120 hours minimum for a BS degree at UD. Required GPA at the time of the Associate Degree is 3.0.**

Students are recommended to complete the following additional coursework at Sinclair in order to graduate in a timely manner from UD:

SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOUR	UD COURSE #
PHY	1141 or 2201 ¹	College Physics I General Physics I	4-5 (UD 4)	PHY 201+201L or PHY 206+210L
PHY	1142 or 2202 ¹	College Physics II General Physics II	4-5 (UD 4)	PHY 202+202L or PHY 207+211L
REL	1111 or 1112 or 2204 or 2255	Eastern Religions Western Religions Great Books: The Bible and Western Culture People and Religion	3	REL 103
TOTAL			11-13 (UD 11)	

- ¹Students interested in Chemistry (BA degree) and Medicinal-Pharmaceutical Chemistry will complete PHY 1141+1142; students interested in Chemistry (BS degree) and Biochemistry will complete PHY 2201+2202. If students are undecided on a specific chemistry degree at UD, complete PHY 2201+2202.

FALL SEMESTER YEAR 1

SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOUR	UD COURSE #
CHE	1211*	General Chemistry I	5 (UD 4)	CHM 1GF+1GFL
ENG	1101	English Composition I	3	ENG 100
HIS	1112	Western Civilization II	3	HST 103
MAT	2270	Calculus & Analytic Geometry I	5 (UD 4)	MTH 168

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SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOUR	UD COURSE #
SCC	1101	First Year Experience	1	ASI 150
TOTAL			17 (UD 15)	

- ***Completion of both CHE 1211 and CHE 1221 are required for transfer credit. Consult with Sinclair College Advisor for course sequencing.**

SPRING SEMESTER YEAR 1

SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOUR	UD COURSE #
CHE	1221*	General Chemistry II	5 (UD 4)	CHM 1GS+1GSL
ENG	1201	English Composition II	3	ENG 200
MAT	2280	Calculus & Analytic Geometry II	5 (UD 4)	MTH 169
SOC	1101**	Introduction to Sociology	3	SOC 101
TOTAL			16 (UD 14)	

- ***Completion of both CHE 1211 and CHE 1221 are required for transfer credit. Consult with Sinclair College Advisor for course sequencing.**
- ****PSY 1100 or SOC 1101 will meet the social science integrated course requirement at the University of Dayton with the completion of the Associate Degree.**

FALL SEMESTER YEAR 2

SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOUR	UD COURSE #
CHE	2111	Organic Chemistry I	5 (UD 4)	CHM 313+313L
COM	2206 or 2211***	Interpersonal Communication Effective Public Speaking	3	CMM 320 or CMM 351
MET	1131	Personal Computer Applications for Engineering Technology	1	CPS 1XX
PSY	1100**	General Psychology	3	PSY 101
TOTAL			12 (UD 11)	

- ****PSY 1100 or SOC 1101 will meet the social science integrated course requirement at the University of Dayton with the completion of the Associate Degree.**
- *****COM 2206 or 2211 will meet the communication requirement at the University of Dayton with the completion of the Associate Degree. This exception applies to only UD-**

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Sinclair Academy students. Consult with your UD advisor if you are eligible for this exception.

SPRING SEMESTER YEAR 2

SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOUR	UD COURSE #
CHE	2121	Organic Chemistry II	5 (UD 4)	CHM 314 + CHM 314L
MAT PHY	2290 or 1141****	Calculus & Analytic Geometry III College Physics I	4-5 (UD 4)	MTH 218 or PHY 201+201L
PHI	2205 or 2206	Introduction to Philosophy Introduction to Ethics	3	PHL 103
SOC	1145	Introduction to Cultural Anthropology	3	ANT 150
TOTAL			15-16 (UD 14)	

- ****MAT 2290 (equivalent to MTH 218 at UD) is required for only Biochemistry (BS) and Chemistry (BS) majors. Students interested in Medicinal-Pharmaceutical Chemistry (BS) or Chemistry (BA) program should take PHY 1141, instead, to complete an associate degree at Sinclair.

Remaining Courses to Be Completed at UD for BS in Biochemistry Sample Curriculum ²			
Fall Semester Third Year		Spring Semester Third Year	
Course	Credit Hours	Course	Credit Hours
BIO 151	3	BIO 152	3
BIO 151L	1	CPS 132	3
CHM 201	3	CAP Crossing Boundaries: Integrative	3
CHM 201L	1	CAP Advanced Religious Studies	3
CAP Arts	3	Foreign Language 141	4
CAP Advanced Historical Studies	3		
Foreign Language 101	4		
TOTAL	18	TOTAL	16

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Remaining Courses to Be Completed at UD for BS in Biochemistry Sample Curriculum ²			
Fall Semester Fourth Year		Spring Semester Fourth Year	
Course	Credit Hours	Course	Credit Hours
CHM 303	3	CHM 304	3
CHM 303L	1	CHM 452	3
CHM 451	3	CHM 462L	1
CHM 480	1	CHM 495	0
BIO Elective with Lab	4	CHM 497	0
BIO/CHM Elective	3	CHM 490 (Capstone)	1
CAP Crossing Boundaries: Faith Traditions	3	BIO/CHM Elective	3
		BIO Elective with Lab	4
		CAP Advanced Philosophical Studies/Crossing Boundaries: Practical Ethical Action	3
TOTAL	18	TOTAL	18

- ²The above is a sample curriculum guide. Review your DegreeWorks audit with your UD academic advisor to fully understand the remaining degree requirements and specific course options.