

# ACADEMIC PATHWAYS



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

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

- **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.**

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- **\*\*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-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	SINCLAIR CREDIT HOUR	COURSE TITLE	UD COURSE #	UD CREDIT HOUR
PHY	1141 or 2201 <sup>1</sup>	4-5	College Physics I General Physics I	PHY 201+201L or PHY 206+210L	4
PHY	1142 or 2202 <sup>1</sup>	4-5	College Physics II General Physics II	PHY 202+202L or PHY 207+211L	4
REL	1111, 1112, 2204, or 2255	3	Eastern Religions Western Religions Great Books: The Bible & Western Culture People and Religion	REL 103	3
<b>TOTAL</b>		<b>11-13</b>			<b>11</b>

- <sup>1</sup>Students 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	SINCLAIR CREDIT HOUR	COURSE TITLE	UD COURSE #	UD CREDIT HOUR
CHE	1211*	5	General Chemistry I	CHM 1GF+1GFL	4
ENG	1101	3	English Composition I	ENG 100	3
HIS	1112	3	Western Civilization II	HST 103	3

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SUBJECT CODE	COURSE NUMBER	SINCLAIR CREDIT HOUR	COURSE TITLE	UD COURSE #	UD CREDIT HOUR
MAT	2270	5	Calculus & Analytic Geometry I	MTH 168	4
SCC	1101	1	First Year Experience	ASI 150	1
<b>TOTAL</b>		<b>17</b>			<b>15</b>

- **\*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	SINCLAIR CREDIT HOUR	COURSE TITLE	UD COURSE #	UD CREDIT HOUR
CHE	1221*	5	General Chemistry II	CHM 1GS+1GSL	4
ENG	1201	3	English Composition II	ENG 200	3
MAT	2280	5	Calculus & Analytic Geometry II	MTH 169	4
SOC	1101**	3	Introduction to Sociology	SOC 101	3
<b>TOTAL</b>		<b>16</b>			<b>14</b>

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

- **\*\*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.**

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

## SPRING SEMESTER YEAR 2

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

- **\*\*\*\*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 <sup>2</sup>			
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		
<b>TOTAL</b>	<b>18</b>	<b>TOTAL</b>	<b>16</b>

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Remaining Courses to Be Completed at UD for BS in Biochemistry Sample Curriculum <sup>2</sup>			
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
<b>TOTAL</b>	<b>18</b>	<b>TOTAL</b>	<b>18</b>

- <sup>2</sup>The 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.