

ACADEMIC PATHWAYS



**Sinclair College –Associate of Science Degree in Mathematics
To
University of Dayton – Bachelor of Science
Major – Applied Mathematical Economics**

SUBJECT CODE	COURSE NUMBER	SINCLAIR CREDIT HOUR	COURSE TITLE	UD COURSE #	UD CREDIT HOUR
*BIO CHE PHY	1171 or 1211** or 2201	5	Principles of Biology I General Chemistry I General Physics I	BIO 151+151L or CHM 1GF+1GFL or PHY 206+210L	4
*BIO CHE PHY	1272 or 1221** or 2202	5	Principles of Biology II General Chemistry II General Physics II	BIO 152+152L or CHM 1GS+1GSL or PHY 207+211L	4
CIS	1111	3	Introduction to Problem Solving & Computer Programming	CPS 149	3
CIS	2212, 2217, and 2266***	3+3+3	Java Software Development I Java Software Development II Data Analysis with Scripting Languages	CPS 150+151	8
COM	2206 or 2211****	3	Interpersonal Communication Effective Public Speaking	CMM 320 or CMM 351	3
ECO	2160	3	Principles of Macroeconomics	ECO 204	3
ECO	2180	3	Principles of Microeconomics	ECO 203	3
ENG	1101	3	English Composition I	ENG 100	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	2290	5	Calculus & Analytic Geometry III	MTH 218	4
PHI	2205 or 2206	3	Introduction to Philosophy Introduction to Ethics	PHL 103	3
PSY SOC	1100 or 1101 ¹	3	General Psychology Introduction to Sociology	PSY 101 or SOC 101	3
REL	1111 or 1112	3	Eastern Religions Western Religions	REL 103	3
SCC	1101	1	First Year Experience	ASI 150	1
TOTAL		62			56

- ***Select one natural science discipline and take the second course in the same discipline area chosen for the first course.**

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- ****Completion of both CHE 1211 and CHE 1221 are required for transfer credit. Consult with Sinclair College Advisor for course sequencing.**
- *****Completion of all three courses (CIS 2212, 2217, and 2266) will be granted equivalent courses as CPS 150 and 151.**
- ******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.**
- **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.**
- **CIS 2212 will be substituted for MAT 2310 or MAT 2600, and CIS 2217 for MAT 2320 to meet Associate Degree requirements.**
- **120 hours minimum are required 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
ENG	1201	3	English Composition II	ENG 200	3
TOTAL		3			3

FALL SEMESTER YEAR 1

SUBJECT CODE	COURSE NUMBER	SINCLAIR CREDIT HOUR	COURSE TITLE	UD COURSE #	UD CREDIT HOUR
CIS	1111	3	Introduction to Problem Solving & Computer Programming	CPS 149	3
ENG	1101	3	English Composition I	ENG 100	3
MAT	2270	5	Calculus & Analytic Geometry I	MTH 168	4
HIS	1112	3	Western Civilization II	HST 103	3
SCC	1101	1	First Year Experience	ASI 150	1
TOTAL		15			14

SPRING SEMESTER YEAR 1

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SUBJECT CODE	COURSE NUMBER	SINCLAIR CREDIT HOUR	COURSE TITLE	UD COURSE #	UD CREDIT HOUR
CIS	2212*	3	Java Software Development I	CPS 1XX	3
COM	2206 or 2211**	3	Interpersonal Communication Effective Public Speaking	CMM 320 or CMM 351	3
ECO	2180	3	Principles of Microeconomics	ECO 203	3
MAT	2280	5	Calculus & Analytic Geometry II	MTH 169	4
PHI	2205 or 2206	3	Introduction to Philosophy Introduction to Ethics	PHL 103	3
TOTAL		17			16

- *Completion of all three courses (CIS 2212, 2217, and 2266) will be granted equivalent courses as CPS 150 and 151.
- **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.

FALL SEMESTER YEAR 2

SUBJECT CODE	COURSE NUMBER	SINCLAIR CREDIT HOUR	COURSE TITLE	UD COURSE #	UD CREDIT HOUR
¹ BIO CHE PHY	1171 or 1211*** or 2201	5	Principles of Biology I General Chemistry I General Physics I	BIO 151+151L or CHM 1GF+1GFL or PHY 206+210L	4
CIS	2217*	3	Java Software Development II	CPS 1XX	3
ECO	2160	3	Principles of Macroeconomics	ECO 204	3
MAT	2290	5	Calculus & Analytic Geometry III	MTH 218	4
TOTAL		16			14

- *Completion of all three courses (CIS 2212, 2217, and 2266) will be granted equivalent courses as CPS 150 and 151.
- ¹Select one natural science discipline and take the second course in the same discipline area chosen for the first course.
- ***Completion of both CHE 1211 and CHE 1221 are required for transfer credit. Consult with Sinclair College Advisor for course sequencing.

SPRING SEMESTER YEAR 2

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SUBJECT CODE	COURSE NUMBER	SINCLAIR CREDIT HOUR	COURSE TITLE	UD COURSE #	UD CREDIT HOUR
¹ BIO CHE PHY	1272 or 1221*** or 2202	5	Principles of Biology II General Chemistry II General Physics II	BIO 152+152L or CHM 1GS+1GSL or PHY 207+211L	4
CIS	2266*	3	Data Analysis with Scripting Languages	CPS 1XX	2
PSY SOC	1100 or 1101****	3	General Psychology Introduction to Sociology	PSY 101 or SOC 101	3
REL	1111 or 1112	3	Eastern Religions Western Religions	REL 103	3
TOTAL		14			12

- *Completion of all three courses (CIS 2212, 2217, and 2266) will be granted equivalent courses as CPS 150 and 151.
- ¹Select one natural science discipline and take the second course in the same discipline area chosen for the first course.
- ***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.

Remaining Courses to Be Completed at UD for BS in Applied Mathematical Economics Sample Curriculum ²			
Fall Semester Third Year		Spring Semester Third Year	
Course	Credit Hours	Course	Credit Hours
ECO 346	3	MTH 310	3
ENG 200	3	MTH 412	3
MTH 308	3	CAP Crossing Boundaries: Practical Ethical Action	3
MTH 411	3	CAP Crossing Boundaries: Faith Traditions	3
CAP Crossing Boundaries: Integrative	3	CAP Arts	3
		General Elective	3
TOTAL	15	TOTAL	18
Fall Semester Fourth Year		Spring Semester Fourth Year	

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Remaining Courses to Be Completed at UD for BS in Applied Mathematical Economics Sample Curriculum ²			
Course	Credit Hours	Course	Credit Hours
ECO 347	3	MTH 480 (Capstone)	1
ECO 441	3	ECO Elective 300/400 Level	3
MTH 330	3	CAP Advanced Philosophical or Religious Studies	3
CAP Advanced Historical Studies	3	CAP Diversity and Social Justice	3
CAP Advanced Philosophical or Religious Studies	3	General Elective	3
General Elective	3	General Elective (Optional)	3
TOTAL	18	TOTAL	16

- ² 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.