St. Mary's University

BS in Bioinformatics with Applied Math Minor Degree Plan – 120 Hours

The maximum credit transferable from a junior college, or any combination of junior colleges, is 66 semester hours.

St. Mary's Core (39 hours)

	Requirements	Texas Common Course Equivalency	Hours Required
__	First Year Experience	Not required for transfer students accepted with 30 or more credit hours. However, a student may need to take three (3) additional hours of elective credits in order to meet the required hours for this degree.	3
__	Freshmen Composition I	ENGL 1301	3
__	Literature	ENGL 1302 or any ENGL 23XX Literature course	3
__	History	Any HIST 13XX or 23xx course	3
__	Social Science	Any **two** of the following courses: BUSI 1301, CRIJ 1301, ECON 2301, ECON 2302, GOVT 2305, GOVT 2306, PSYC 1301, PSYC 2306, PSYC 2316, PSYC 2314, SOCI 1301, SOCI 1306, SOCI 2319, SPCH 1311, SPCH 1315, SPCH 1321, SPCH 2335	6
__	Mathematics	MATH 2413	
__	Natural or Physical Sciences	CHEM 1401 or CHEM 1311 and CHEM 1111	
__	Fine Arts	Any 3-credit hour Fine Arts course from the following: ARTS, MUSI, DRAM	3
__	Foreign Language and International Engagement	Two courses (1411 and 1412) in a language not previously studied or two courses (2311 and 2312) in a language previously studied	6
__	Philosophy – Self	PHIL 1301	3
__	Philosophy – Ethics	PHIL 2306	3
__	Theology	Theology courses from other universities may be transferable with the approval of the Theology Department	3
__	Intermediate Theology	Theology courses from other universities may be transferable with the approval of the Theology Department	3

Bioinformatics Major Courses - Mathematics minor (79 hours)

	Requirements for this major:	Texas Common Course Equivalency	Hours Required
__	BIO 3310 – Intro to Bioinformatics	No equivalent	3
__	BIO 3314 – Internship/Research	No equivalent	3
__	BIO 3410 – Biostatistics for Life Science	No equivalent	4
__	BIO 4311 – Bioinformatics Programming with R	No equivalent	3
__	BIO 4312 – Bioinformatics Capstone Or BL 3464 – Evolutionary Biology Or BL 4420 – Forensic Biotechnology	No equivalent	3
__	BIO 4411 – Genes, Genomes, and Genomics	No equivalent	4
__	BL 1401 – General Biology for Majors I	BIOL 1406	4

__	BL 1402 – General Biology for Majors II	BIOL 1407	4
__	BL 2110 – Sophomore Biology Seminar	No equivalent	1
__	BL 2330 – Genetic Principles	BIOL 2416	3
__	BL 2332 – Cell Biology	No equivalent	3
__	BL 3110 – Junior Biology Seminar	No equivalent	1
__	BL 4110 – Senior Junior Seminar	No equivalent	1
__	BL 34XX or 44XX – Advanced Biology Elective	No equivalent	4
__	CH 1401 – General Chemistry I	CHEM 1411 or CHEM 1311 and CHEM 1111	4
__	CH 1402 – General Chemistry II	CHEM 1412 or CHEM 1312 and CHEM 1112	4
__	CS 1310 – Programming I in C	COSC 1336 or 1436	3
__	CS 3300 – Introduction to Programming for Data Analytics (in Python)	No equivalent	3
__	MT 2412 – Calculus I	MATH 2413	4
__	MT 2413 – Calculus II	MATH 2414	4
__	MT 2414 – Calculus III	MATH 2415	4
__	MT 2318 – Applied Linear Algebra	MATH 2318	3
__	MT 4331 – Probability Theory	No equivalent	3
__	MT 4332 – Statistics	No equivalent	3
__	MT 4333 – Applied Statistical Methods	No equivalent	3
Electives (2 hours)			2
An elective can be any course taken from any discipline. Students can use these hours to pursue certificates, minors, or second majors.			
Total Semester hours for this degree			**120**

Updated 11/19/2025