St. Mary's University

BS in Engineering Science with Mathematics Concentration – 128 Hours

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

St. Mary's Core (47 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	ENGR 1201. The remaining 4 hours must be taken at St. Mary's.	6
__	Mathematics	MATH 2413	
__	Natural or Physical Sciences	PHYS 2425 or PHYS 2325 and PHYS 2125	4
__	Fine Arts	ENGR 1304	3
__	Foreign Language	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

Engineering Science (Mathematics) Major Courses

	Requirements for this major:	Texas Common Course Equivalency	Hours Required
__	EC 2303 – Introductory Microeconomic Theory	ECON 2303	3
__	EG 1194 – Python Programming for Engineering Lab	ENGR 2304 or COSC 1336 or COSC 1436	1
__	EG 1294 – Python Programming for Engineering	ENGR 2304 or COSC 1336 or COSC 1436	3
__	EG 2123 – Circuits and Systems Lab	ENGR 2405 or ENGR 2105	1
__	EG 2323 – Circuits and Systems Analysis	ENGR 2405 or ENGR 2305	3
__	EG 2343 – Statics	ENGR 2301	3
__	EG 3101 – Engineering Analysis and Design Workshop I	No equivalent	1
__	EG 3102 – Engineering Analysis and Design Workshop I	No equivalent	1

__	EG 3191 – Data Visualization and Analytics Lab	No equivalent	1
__	EG 3391 – Data Analytics and Information Engineering	No equivalent	3
__	EG 4101 – Engineering Design and Analysis Workshop III	No equivalent	1
__	EG 4301 – Senior Design Project I	No equivalent	3
__	EG 4302 – Senior Design Project II	No equivalent	3
__	EG 4193 – Optimization and Decision Analytics Lab	No equivalent	1
__	EG 4393 – Optimization	No equivalent	3
__	EG 4395 – Stochastic Modeling and Risk Analysis	No equivalent	3
__	FN 3310 – Principles of Finance	No equivalent	3
__	FN 3340 – Fundamentals of Risk Management	No equivalent	3
__	MT 2332 – Advanced Math for Engineers I	MATH 2318 & MATH 2320	3
__	MT 2323 – Discrete Math Structures	MATH 2323	3
__	MT 2413 – Calculus II	MATH 2414	4
__	MT 3375 – Theory of Interest	No equivalent	3
__	MT 4311 – Complex Variables	No equivalent	3
__	MT 4332 – Statistics	No equivalent	3
__	MT 4333 – Applied Statistical Methods	No equivalent	3
__	MT 4334 – Mathematical Statistics	No equivalent	3
__	QM 3321 – Business Analytics	No equivalent	3
__	PY 2404 – University Physics II	PHYS 2426 or PHYS 2326 and PHYS 2126	3
__	EG/Math Elective I	No equivalent	3
__	EG/Math Elective II	No equivalent	3
Total Semester hours for this degree: 128			

Updated 08/04/2026