



ENGINEERING SCIENCE TRANSFER • Associate in Science

BEDFORD CAMPUS - DAY

✓	COURSE #	COURSE TITLE	CREDITS	PREREQUISITES
_____	EGR 101	Introduction to Engineering	4	ENG 060 or higher placement. Completion of or current enrollment in MAT 100 or TMA 096
_____	CSC 151	Programming I	4	Previous programming experience or CSC 101
_____	ENG 101	English Composition I	3	C- in ENG 071 or eligible for ENG 101 and placement above or successful completion of ENG 060
_____	ENG 102	English Composition II: An Introduction to Literature	3	ENG 101
_____	CHE 151	General Chemistry for Engineering & Science I	4	MAT 100 & high school or college chemistry in the last 5 years and eligible for ENG 101
_____	CHE 152	General Chemistry for Engineering & Science II	4	CHE 151, MAT 185 or higher
_____	ETH 101	Ethics & Society or		ENG 060 or higher placement
_____	ETH 104	Technology and Society	3	
_____	MAT 185	Precalculus for Science I	4	MAT 100 with a grade of C or better or placement by exam
_____	MAT 190	Precalculus II	3	MAT 180 or MAT 185, MAT 190 with a grade of C or better
_____	MAT 290	Calculus I for Science	4	MAT 185 and MAT 190 with a grade of C or better or higher exam
_____	MAT 291	Calculus II for Science	4	MAT 290 with a grade of C or better
_____	PHY 171	Physics for Engineering and Science I	4	Successful completion of or concurrent enrollment in MAT 290
_____	PHY 172	Physics for Engineering and Science II	4	PHY 171 and successful completion of or concurrent enrollment in MAT 291
_____	_____	General Education Elective**	3	
_____	_____	Humanities Elective	3	
_____	_____	Social Science Elective*	3	
_____	_____	Behavioral Science Elective	3	
_____	_____	Elective**	3	
			63	

* ECO 140 or ECO 150 is recommended

** If math, must be MAT 100 or above

Special Requirements for Engineering Science Transfer: Students should plan on taking at least one mathematics course each semester. **MAT 060, MAT 065, MAT 070 or MAT 075, MAT 077, MAT 080, MAT 085 will not satisfy any requirement in this program. It is essential for students to work closely with their academic advisor for proper course sequencing. Additional coursework may be required based on college placement testing.

Program Description:

The Engineering Science Transfer Associate in Science degree program is designed to provide the courses usually found in the first year of a bachelor's degree program in engineering. The program is particularly appropriate for students who are not ready to take calculus when they begin college studies, as this program includes precalculus mathematics.

Academic advisors and transfer counselors work closely with students to assist them with course planning in accordance with their intended bachelor's degree major and transfer institution. Graduates of this program will transfer as sophomores and probably require the equivalent of approximately three years of full-time study to complete their bachelor's degree.

Career and Transfer Outlook:

Career opportunities are open to students who transfer and complete a bachelor's degree. Engineers design complex systems, solve technical problems, and provide supervision and leadership.

Helpful Hints:

Students should plan on taking mathematics courses immediately and continue taking math courses until all mathematics requirements are fulfilled.

Students who have not had any prior computer programming experience must take Introduction to Computer Science (CSC 101) prior to taking Programming I (CSC 151). Students who place into or below MAT 080 on the college placement test are encouraged to take Exploring Technology (ITC 100). Students are also encouraged to take Introduction to Engineering (EGR 101) as soon as they satisfy the prerequisite. Students should check the requirements of their transfer institution to determine if Inorganic Chemistry I and II are required for their program.

Program Outcomes:

Graduates of the Engineering Science program are prepared to:

- Design a system, component or process to produce a desired result;
- Research and analyze information, and apply critical thinking to draw conclusions;
- Work effectively in a multi-discipline team;
- Identify, formulate and solve engineering problems using engineering tools and/or advanced mathematics and science;
- Communicate effectively both verbally and in writing;
- Demonstrate professionalism by behaving ethically and showing initiative to learn independently.