

**Program Description:**

Students in the Physical Science Concentration Associate in Arts, Liberal Arts and Sciences degree program pursue interests in the sciences, while exploring other academic disciplines through the general education requirements of a liberal arts education. The program satisfies the Commonwealth Transfer Compact, which guarantees credit transfer to Massachusetts state colleges and the University of Massachusetts.

Career and Transfer Outlook:

Most students in the Physical Science Concentration continue their studies toward a bachelor's degree. Students should check the requirements of the transfer institution and meet with career and academic/transfer counselors at MCC for specific program planning. Students may pursue various careers in chemistry, physics, environmental sciences, teaching or engineering.

Helpful Hints:

Students should begin their Middlesex experience by taking the foundation-level courses (English and mathematics) prior to, or along with, their science courses. Writing and mathematics are fundamental to every subsequent course that students experience in a Liberal Arts and Science program.

Program Outcomes:

Graduates of the Physical Science Concentration program are prepared to:

- Use their scientific educational experiences to provide a solid foundation for further study of the sciences;
- Convey scientific information through written, oral, numerical or visual communication;
- Demonstrate investigative skills that underlie the scientific method;
- Gather and interpret information about the natural world;
- Evaluate and discuss societal issues impacted by science.

PHYSICAL SCIENCE CONCENTRATION • Associate in Arts, Liberal Arts and Sciences

BEDFORD CAMPUS - DAY

✓	COURSE #	COURSE TITLE	CREDITS	PREREQUISITES
_____	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
_____	CAP 103	Computers for Technology or		MAT 070 or placement into MAT 080
_____	CSC 101	Introduction to Computer Science with Visual Basic or		Taking, have successfully completed or tested out of MAT 080 or have completed MAT 085 and eligible for ENG 101
_____	CSC 151	Programming I	3-4	CSC 101 or previous programming experience
_____	CHE 151	General Chemistry for Engineering and Science I	4	MAT 100, previous high school or college chemistry within the past 5 years and eligible for ENG 101
_____	CHE 152	General Chemistry for Engineering and Science II	4	CHE 151, MAT 185 or higher
_____	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 or MAT 189 with a grade of C or better or placement by exam
_____	MAT 290	Calculus I for Science	4	MAT 185 and MAT 190 with a grade of C or better or placement by 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, successful completion of or concurrent enrollment in MAT 291
_____	_____	Literature Elective	3	
_____	_____	Humanities Elective	3	
_____	_____	Humanities Elective	3	
_____	_____	Humanities Elective	3	
_____	_____	Science Elective	3-4	
_____	_____	Social Science Elective	3	
_____	_____	Behavioral Science Elective	3	
_____	_____	Behavioral Science Elective or		
_____	_____	Social Science Elective	3	
_____	_____	Behavioral Science Elective or		
_____	_____	Social Science Elective	3	
			<u>3</u>	
			67-69	

Special Requirements for Liberal Arts & Sciences-Physical Science: A two-semester history sequence (HST courses) is required for graduation. Additional coursework may be required based on college placement testing. Students are urged to meet with their academic advisor for proper course sequencing.