

**Certificate
Biotechnical & Chemical Operator (CT.BIOCO 71182)**

**Total Credit Hours: 35
Effective: Fall 2018**

Graduation Plan

First Semester			
	Credit Hours	Pre-requisites	Done
*BTN 103 Introduction to Biotechnology and Laboratory	4	ENG 032 or equivalent	<input type="checkbox"/>
*CHM 101 General Chemistry I OR	-	MAT 101 or MAT 155 or equivalent - Minimum grade of C	<input type="checkbox"/>
*CHM 110 College Chemistr I	4	MAT 101 – Minimum grade of C	<input type="checkbox"/>
*ENG 155 Communications I OR	-	Co-requisite: ENG 032 or equivalent	<input type="checkbox"/>
*ENG 101 English Composition I	3	Co-requisite: ENG 032 or equivalent	<input type="checkbox"/>
*MAT 155 Contemporary Mathematics	3	MAT 032 or equivalent – Minimum grade of C	<input type="checkbox"/>
TOTAL	14		

Second Semester

	Credit Hours	Pre-requisites	Done
*CHM 105 General, Organic and Biochemistry OR	-	MAT 101 or MAT 103 or MAT 155 or equivalent – Minimum grade of C; Co-requisite: ENG 032 or equivalent It is recommended that students with no chemistry background take CHM 101 before taking CHM 105	<input type="checkbox"/>
*CHM 111 College Chemistry II	4	CHM 110 and MAT 110 – Minimum grades of C	<input type="checkbox"/>
*CHM 275 Introduction to Industrial Chemical Processes	3	Co-requisite: EVT 254	<input type="checkbox"/>
*EVT 254 Industrial Safety and Emergency Response	3		<input type="checkbox"/>
*IMT 102 General Safety	2	RDG 031 or equivalent; MAT 032 or equivalent	<input type="checkbox"/>
TOTAL	12		

Third Semester

	Credit Hours	Pre-requisites	Done
*EVT 111 Introduction to Water and Wastewater Treatment Laboratory	1		<input type="checkbox"/>
*IMT 131 Hydraulics and Pneumatics	4	RDG 031 or equivalent; MAT 032 or equivalent	<input type="checkbox"/>

A **co-requisite** is a course that must be taken the same semester as, or completed in a previous semester before, another specified course.

A **pre-requisite** is a course that must be completed in order to enter another specified course.

* Courses in this program that require a minimum grade of “C.”

Graduation Plan

*PHS 101 Physical Science I	4		<input type="checkbox"/>
TOTAL	9		

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A **pre-requisite** is a course that must be completed in order to enter another specified course.

* Courses in this program that require a minimum grade of "C."