

# **BIOTECHNOLOGY**Associate Degree Program

### **ADMISSION**

Course work includes general education, computer applications, biology, chemistry, industrial safety and an extensive array of very detailed pharmaceutically specific classes.

### **Occupational Outlook**

Graduates will qualify for numerous positions within the industry. Employment opportunities include, but are not limited to the following: manufacturing, product/process validation, chemical quality assurance, microbiological quality assurance, product inspection, and documentation review.

### **Admission Steps**

□ Complete CCC&TI admissions application online at <u>cccti.edu</u>
$\hfill \square$ Submit official high school/GED/AHS transcripts and college transcripts
□ Complete FASFA online at <u>www.studentaid.gov</u>
☐ Meet placement testing requirements
☐ Meet with advisor to register for classes
☐ Attend orientation
☐ Pay for classes and purchase books at the bookstore

### **Important Contact Information**

#### Admissions

Contact *Ally Johnson, Outreach Navigator*, at 828.759.4674 or <u>abjohnson@cccti.edu</u> for more information and how to successfully complete the enrollment and registration process.

#### **Financial Aid**

Contact Financial Aid at 828.726.2713 as soon as possible to inquire and complete your FAFSA. Check your CCC&TI student email frequently to monitor your Financial Aid status.

### **Program Director**

Andrew Capps, Director, Biopharmaceutical Technology, at 828.726.2615 or acapps@cccti.edu

#### **Other Contact Information**

Steven Roberts, Biopharmaceutical Technology Instructor, Apprentice at 828.726.2398 or sdroberts@cccti.edu

### **PROGRAM REQUIREMENTS**

### PROGRAM OFFERINGS – Biotechnology Degree Program (A20180)

	F	FALL SEMESTER I		
ACA 115	Success & Study Skills	F/S/SS		1 credit
BIO 110	Principles of Biology	On Demand		4 credits
BPM 110	Bioprocess Practices	Fall Only		5 credits
ENG 111	Writing and Inquiry	F/S/SS		3 credits
PTC 110	Industrial Environment	Fall Only		3 credits
			Total credits	16
	SI	PRING SEMESTER I		
BPM 111	Bioprocess Measurements	Spring Only		4 credits
ISC 278	cGMP QMS	Spring Only		2 credits
MAT 152	Statistical Methods I	F/S/SS	Prerequisite: Take One Set: Set 1: DMA-010, DMA-020, DMA-030, and DRE-098 Set 2: DMA- 010, DMA-020, DMA- 030, and ENG-002 Set 3: DMA-010, DMA-020, DMA-030, and BSP-4002 Set 4: DMA-025, and DRE-098 Set 5: DMA- 025, and ENG-002 Set 6: DMA-025, and BSP-4002 Set 7: MAT-003 and DRE-098 Set 8: MAT-003 and ENG-002 Set 9: MAT-003 and BSP-4002 Set 10: BSP-4003 and DRE-098 Set 11: BSP- 4003 and ENG-002 Set 12: BSP-4003 and BSP- 4002 - Must be completed prior to taking this course. Take MAT-052 - Must be taken either prior to or at	4 credits

Student Choice Soc	harm Quality Control	Spring Only  F/S/SS  JMMER SEMSTER I	Prerequisite: Take One: BIO-110 or BIO-111	4 credits
Dh	SI harm Quality Control			
PTC 120	harm Quality Control	IMMED SEMSTED !		3 credits
PTC 120	harm Quality Control	IMMED CEMETED I	Total credits	17
PTC 120	•	DININIER SEINISTERT		1
	Social	Summer Only	Prerequisite: Take PTC- 110	4 credits
*Student Choice H	Humanities Elective	F/S/SS		3 credits
			Total credits	7
	F	ALL SEMESTER II		
BPM 112 Uր	pstream Processing	Fall Only	Prerequisite: Take BPM 111	5 credits
BPM 113	Downstream Bioprocessing	Fall Only	Prerequisite: Take BPM 111	4 credits
CHM 131	Introduction to Chemistry	Fall Only	Corequisite: CHM 131A	3 credits
CHM 131A	Introduction to Chemistry Lab	Fall Only	Corequisite: CHM 131	1 credit
Student Choice	Communication Elective	F/S/SS		3 credits
			Total credits	16
SPRING SEMESTER II				
CHM 132	Organic and Biochemistry	Spring Only	Prerequisite: CHM 131/CHM 131A or CHM 151	4 credits
ENV 212	Instrumentation	Spring Only	Prerequisite: Take One Set: Set 1: ENV-110 Set 2: BIO-140 and BIO-140A Set 3: PTC-110 Corequisite: Take CHM- 132	4 credits
PTC 226		Spring Only		3 credits

Total Credit Hours: 68				
			Total credits	12
WBL 111	Work-Based Learning I	F/S/SS		1 credit
WBL 110	World of Work	F/S/SS		1 credit

## PROGRAM OFFERINGS – Biotechnology-Pharmaceutical Validation Certificate (C20180V)

FALL SEMESTER I				
PTC 110	Industrial Environment	Fall Only		3 credits
			Total credits	3
	SF	PRING SEMESTER I		
ISC 278	cGMP QMS	Spring Only		2 credits
PTC 226	Validation	Spring Only		3 credits
BMP 110	Bioprocess Practices	Spring Only		5 credits
			Total credits	10
Total Credit Hours: 13				

### PROGRAM OFFERINGS – Biotechnology Certificate - (C20180C)

FALL SEMESTER I				
ISC 112	Industrial Safety	Fall Only		2 credits

PTC 110	Industrial Environment	Fall Only		3 credits
			Total credits	5
SPRING SEMESTER I				
ISC 278	cGMP QMS	Spring Only		2 credits
BMP 110	Bioprocess Practices	Spring Only		5 credits
			Total credits	7
Total Credit Hours: 12				

### COST

	Associate	Certificate	
	Fall Semester I \$1,216		
	Spring Semester I \$1,064	Fall Semester I	
Tuition	Summer Semester I \$608	\$228 - \$350 Spring Semester I	
(\$76/credit hour)	Fall Semester II	<b>\$</b> 532 - \$760	
nour)	\$988	This program is designed to be competed in 6	
	Spring Semester II	months.	
	\$1,216		
	<b>Tuition Total</b> \$5,092		
	\$35 campus activity fee (each semester)	\$35 campus activity fee (each semester)	
Additional	\$2/per course (max \$10 per semester) campus service fee	\$2/per course (max \$10 per semester) campus service fee	
Fees	\$2 (per semester) student accident insurance	\$2 (per semester) student accident insurance	
	Total (per semester)	Total (per semester)	
	\$47	\$47	
Textbooks (purchased from CCC&TI Bookstore)	varies	varies	

Graduation Fee	\$25	\$25
Total	approximately <b>\$5,164</b>	approximately <b>\$278 - \$810</b>

### **PROGRAM EXPECTATIONS**

### **Classroom Etiquette**

College is an adult learning environment and all students are expected to act accordingly. Mature and respectful conversations are expected. Sometimes it is very easy to be rude to another student or the instructor when typing emails or discussion/blog postings from behind a computer screen. Be aware that tone matters in writing, and an email or posting that you write in a hurry or as sarcasm may not be received the same way you intended. Be cautious to think before you type and be sincere in your dealings with others in the course.

#### **Dress Code**

While attending Biopharmaceutical Technology classes, the student will be expected to dress in appropriate clothing attire at all times. Course syllabi will require specific clothing attire for laboratory activities. Inappropriate dress will be addressed by the instructor and/or program director. If the problem is not corrected necessary disciplinary action may be required.