

CANNABIS SCIENCE & OPERATIONS

Associate of Applied Science

Business Pathway
CCD.edu

Cannabis Business

The Associate of Applied Science degree is designed to prepare a new generation of business managers and operators within a cannabis enterprise. The program combines a mix of core business, management, and marketing curriculum with applied cannabis-related courses. It provides students with the knowledge, skills, and practical experience essential to operate a cannabis business within the legal constraints.

There are *four tracks* you can take to complete your Associate of Applied Science degree in Cannabis Business:

Entrepreneurship and Customer Service Track-Completion of this track will allow you to finish your Associate degree in Cannabis Business with stackable certificates in both Entrepreneurship and Customer Service.

Cannabis Science and Operations Bachelor of Applied Science (BAS) Track-Select this track if you intend to complete your Bachelors of Applied Science (BAS) degree in Cannabis Science and Operations (CSO). This track will provide you with the necessary pre-requisites for success in the CSO-BAS degree program.

Cultivation Track-Select this track if you do not intend to continue to the CSO-BAS but wish to learn more about the cultivation, environmental sustainability, and waste management aspects of the Cannabaceae family of plants.

Logistics and Supply Chain Management Track-Choose this track if you wish to complete your Associate degree in Cannabis Business with additional understanding of logistics and supply chain management. This track does not result in a Supply Chain certificate and course content is not specific to the cannabis industry.

Cultivation Track & Cannabis Science and Operations (CSO) Bachelor of Science Continuation Track

Course	Title	Credits
First Semester		
BUS 1015	Introduction to Business	3
CSO 1000	Cannabis Fundamentals	3
ENG 1031	Technical Writing I: GT-CO1	3
MAT 1260	Intro to Statistics: GT-MA1	3
Choose One History Course (GT-HI1)		3
HIS 1310	Western Civilization: Antiquity-1650: GT-HI1	
HIS 1110	The World: Antiquity-1500: GT-HI1	
HIS 1120	The World: 1500-Present: GT-HI1	
HIS 2005	Women in World History: GT-HI1	
Subtotal		15
Second Semester		
CSO 1050	Cannabis Business	3
PHI 2005	Business Ethics: GT-AH3	3
CSO 2000	Cannabis Laws, Regulations, and Compliance	3
CSO 2015	Software and Systems Requirements for Cannabis Business	3
Choose One Course		3
ECO 2001	Principles of Macroeconomics: GT-SS1	
ECO 2002	Principles of Microeconomics: GT-SS1	
Subtotal		15
Third Semester		
CSO 2020	Cannabis Business Accounting	4
CSO 2030	Cannabis Retail and Management	3
BUS 1021	Basic Workplace Skills	1

MAR 2016	Principles of Marketing	3
Choose One Elective Based on Chosen Track		4-5
AGY 3025	Cannabis Plant Botany and Cultivation ¹	
MAT 1340	College Algebra: GT-MA1 ²	
CHE 1111	General College Chemistry I with Lab: GT-SC1 ²	
Subtotal		15-16
Fourth Semester		
CSO 4035	Cannabis-Infused Products	3
MAN 2026	Principles of Management	3
CSO 4050	Public Health and Cannabis Use	3
CSO 2080	Internship	3
Choose One Elective Based on Chosen Track		3-5
CSO 4025	Environmental Sustainability & Waste Management in Cannabis Cultivation ¹	
CHE 1111	General College Chemistry I with Lab: GT-SC1 ²	
CHE 1112	General College Chemistry II with Lab: GT-SC1 ²	
Subtotal		15-17
Total Credits		60-63

¹ Cultivation Track

² Cannabis Science & Operations Bachelor of Applied Science (BAS) Continuation Track

Supply Chain Management Track & Customer Service and Entrepreneurship Track

Course	Title	Credits
First Semester		
BUS 1015	Introduction to Business	3
CSO 1000	Cannabis Fundamentals	3
ENG 1031	Technical Writing I: GT-CO1	3
MAT 1260	Intro to Statistics: GT-MA1	3
Choose One History Course (GT-HI1)		3
HIS 1310	Western Civilization: Antiquity-1650: GT-HI1	
HIS 1110	The World: Antiquity-1500: GT-HI1	
HIS 1120	The World: 1500-Present: GT-HI1	
HIS 2005	Women in World History: GT-HI1	
Subtotal		15
Second Semester		
CSO 1050	Cannabis Business	3
PHI 2005	Business Ethics: GT-AH3	3
CSO 2000	Cannabis Laws, Regulations, and Compliance	3
CSO 2015	Software and Systems Requirements for Cannabis Business	3
Choose One Course		3
ECO 2001	Principles of Macroeconomics: GT-SS1	
ECO 2002	Principles of Microeconomics: GT-SS1	
Subtotal		15
Third Semester		
CSO 2020	Cannabis Business Accounting	4
CSO 2030	Cannabis Retail and Management	3
BUS 1021	Basic Workplace Skills	1
MAR 2016	Principles of Marketing	3
Choose One Elective Based on Chosen Track		3
MAN 1005	Logistics Management ³	
MAR 1060	Customer Service ⁴	
Subtotal		14
Fourth Semester		
CSO 4035	Cannabis-Infused Products	3
MAN 2026	Principles of Management	3
CSO 4050	Public Health and Cannabis Use	3
CSO 2080	Internship	3
Choose One Elective Based on Chosen Track		3
BUS 2001	Business Logistics Optimization ³	
MAR 1011	Principles of Sales ⁴	

Choose One Elective Based on Chosen Track	3
BUS 2002 Business Purchasing, Supply, and Sourcing Logistics ³	
MAN 1060 Entrepreneurship ⁴	
Subtotal	18
Total Credits	62

³ Supply Chain Management Track

⁴ Customer Service and Entrepreneurship Track

Fifth Semester

Spring		
CSO 4010	Extraction for Production	3
CSO 4050	Public Health and Cannabis Use	3
CSO 4089	Medicinal Plant Analysis Capstone	4
CSO 4080	Internship	2
Subtotal		12
Total Credits		60

Bachelor of Applied Science

Science, Technology, Engineering & Math Pathway
CCD.edu

CANNABIS SCIENCE & OPERATIONS

The Cannabis Science and Operations Bachelor of Applied Science (BAS) program (a total of 120 credit hours) offers a flexible upper level 60-credit hour degree designed specifically for students who have earned an associate degree from a regionally accredited institution in related areas. The BAS program will be primarily delivered face-to-face but it may include other delivery methods such as hybrid or Online.

The Cannabis Science and Operations BAS degree equips graduates with necessary skills to gain employment in the emerging cannabis field. It combines a mix of core chemistry and biology curriculum with applied cannabis-related courses. Graduates from this program earn 420 hours of hands-on experience in state-of-art instrumentation laboratories and 90 internship hours, giving them the foundational skills necessary to be successful across various professions. Examples of reported job titles include Laboratory Manager/Technician, Analytical Chemist, Cannabis Extraction Manager/Technician, Formulation/Process development Scientist, Research and Development Scientist, Cannabis Cultivation Scientist, Cannabis regulatory Manager, Field Application Scientist, or Pharmaceutical Chemist.

COURSE MAP

Plan of Study Grid

Course	Title	Credits
First Semester		
Fall		
CSO 3000	Cannabis Seminar	3
BIO 2101	Human Anatomy & Physiology with Lab I: GT-SC1	4
MAT 1340	College Algebra: GT-MA1	4
Choose One Course		3
ENG 1021	English Composition I: GT-CO1	
ENG 1022	English Composition II: GT-CO2	
ENG 2001	English Composition III: GT-CO3	
ENG 1031	Technical Writing I: GT-CO1	
Subtotal		14
Second Semester		
Spring		
CHE 1111	General College Chemistry I with Lab: GT-SC1	5
MAT 1260	Intro to Statistics: GT-MA1	3
AGY 3025	Cannabis Plant Botany and Cultivation	4
Subtotal		12
Third Semester		
Summer		
CSO 3010	Fundamentals of Cannabis Science w/Lab	5
CHE 1112	General College Chemistry II with Lab: GT-SC1	5
Subtotal		10
Fourth Semester		
Fall		
CSO 4000	Chemical Analysis of Medicinal Plants w/Lab	4
CSO 4005	Endocannabinoid System and Pharmacology	4
CSO 4015	Microbiological Analysis of Medicinal Plant w/Lab	4
Subtotal		12