

## PROGRAM OVERVIEW

Thousands of jobs are being created as a result of the rising legalization of cannabis across the country. Legalized cannabis is expected to be an estimated \$150 billion industry by 2025 and will need educated employees to sustain the industry.

To produce quality employees to meet this demand, Saint Louis University offers an online certificate in cannabis science and operations. This certificate program addresses all aspects of the cannabis industry, including cultivating, growing and producing. You will learn about dispensing and the pharmacological properties of cannabis.

Graduates of this certificate program can pursue positions in sales and marketing, dispensary management, quality assurance and laboratory technology, among other areas.

## COURSE DESCRIPTIONS

### Cannabis Fundamentals: Growing, Manufacturing and Dispensing

Cannabis Fundamentals provides students with an overview of the science of growing the cannabis plant, the manufacturing and processing of products from cannabis, and the dispensing of cannabis for medical and therapeutic use. The topics covered in this course include cannabis terminology, a review of the history of the industry, cultural norms, and common interactions within the human body. Additionally, students learn about the horticultural principles of growing and harvesting cannabis, equipment, oil extraction techniques, modes of dispensing cannabis, and regulations.

### Cannabis Plant Science and Cultivation

Cannabis Plant Science and Cultivation introduces students to growing and developing the cannabis plant for use in the pharmaceutical, construction, and agricultural sectors. This course includes plant botany (physiology, structure, genetics, and ecology), seed procurement and storage, seed germination, cutting propagation, soil science, water management, plant anatomy identification, growing and flowering stages, and harvesting techniques.

### Cannabis Extraction and Product Production

Cannabis Extraction and Product Production provides students with information relevant to the extraction and manufacturing of cannabis. Course topics include laboratory safety, basic chemistry concepts, solvent-less extraction, solvent based extraction, cleaning up extractions,

final product forms, packaging, testing, equipment sanitation, Missouri food code, good manufacturing practices, inventory management, order processing and security.

### Cannabis Compliance and Dispensing

Cannabis Compliance and Dispensing will focus on the roles, responsibilities and legal requirements of a dispensary in the distribution of information and products to the consumer. Topics covered include statutory provisions and regulations, types of dispensing operations, personnel, employee training requirements, physical facilities, zoning, security, inventory control, recordkeeping, cleaning and sanitation, consumer rights and responsibilities, efficacy and patient care issues.

### Pharmacological Properties of Cannabis

Pharmacological Properties of Cannabis introduces students to the chemical characteristics of the cannabis components and the factors that influence drug interaction within the body. Topics covered include receptor theory, chemical absorption, distribution, metabolism, excretion, and dose-response relationships. This course also examines the symptoms treated by cannabis and evidence of the effectiveness of cannabis in treating patients.

### Cannabis Science and Operations Capstone

The course is focused on development of a capstone project which is the culminating activity for the program, the purpose of which is to demonstrate what you've learned through the program to faculty and fellow students and to explore a specific topic of interest.

## CAREERS

The list of possible jobs in the cannabis industry is quite extensive. With a certificate in cannabis science and operations, you will be prepared to pursue various in-demand positions in the following broad categories:

- Cultivation
- Laboratory technology
- Distribution logistics
- Dispensary management
- Regulatory compliance
- Sales and marketing
- Quality assurance
- Wellness specialist
- Product development

[ONLINE.SLU.EDU/CANNABISCERTS](https://online.slu.edu/cannabiscerts)

### Contact

[sps@slu.edu](mailto:sps@slu.edu) | 314-526-2825 | [online.slu.edu](https://online.slu.edu)

*\*Member of the Missouri Medical Cannabis Trade Association*

### Address

School for Professional Studies  
Brouster Hall | 3840 Lindell Blvd, St. Louis, MO 63108

## ADMISSION REQUIREMENTS

The School for Professional Studies welcomes adult learners whose educational journey has been interrupted by life's circumstances. This includes individuals with at least one of the following characteristics:

- Delayed enrollment in post-secondary education
- Attends part-time for at least part of the academic year
- Works full-time (35 hours or more/week) while enrolled
- Financial independence, has dependents other than a spouse, is a single parent, or has other demands that make traditional education less feasible

## APPLICATION REQUIREMENTS

- **Work Experience:** At least three years or the equivalent. Work experience may include a full-time/part-time job, internship, volunteer work, or comparable experiences.
- **Education:** High school diploma or composite GED score of at least 2250.
- **Coaching session:** Successful completion of a meeting with an academic coach (this can be done virtually or on campus).
- **Grade Point Average:** Minimum transfer cumulative GPA of 2.5 (unless qualified for conditional admittance).
- **Transcript:** An official transcript from the most recent institution attended.

## SCHOLARSHIPS AND FINANCIAL AID

There are two principal ways to help finance a Saint Louis University education:

- **Scholarships:** Scholarships are awarded based on academic achievement, service, leadership and financial need. The School for Professional Studies offers numerous scholarships and awards specially for new students.
- **Financial Aid:** Financial aid is provided in the form of grants and loans, some of which require repayment.

To determine eligibility for financial assistance, submit the Free Application for Federal Student Aid (FAFSA) early for maximum consideration. FAFSA is available online at <http://www.fafsa.ed.gov>.

For information on other scholarships and financial aid, visit the student financial services office online at <http://finaid.slu.edu>.

## LEARNING OUTCOMES

- Graduates will be able to apply knowledge of plant science, soil, nutrients and cultivation practices to the growing of cannabis.
- Graduates will be able to explain the engineering principles behind and processes employed in the manufacturing of cannabis products.
- Graduates will be able to explain the known pharmacological principles of cannabis.
- Graduates will be able to explain the roles, responsibilities and legal requirements used to operate and sustain a cannabis dispensary.
- Graduates will be able to describe how cannabis products impact society (history, community, economic and ethical).

## REQUIREMENTS

Code	Title	Credits
CSO 1000	Cannabis Fundamentals: Growing, Manufacturing & Dispensing	3
CSO 1500	Cannabis Plant Science & Cultivation	3
CSO 1600	Cannabis Extraction & Product Production	3
CSO 1700	Cannabis Compliance & Dispensing	3
CSO 2000	Pharmacological Properties of Cannabis	3
CSO 2960	Cannabis Operations and Science Capstone	1
<b>Total Credits</b>		<b>16</b>

## CONTINUATION STANDARDS

Students must maintain a minimum 2.00 GPA.

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# SAINT LOUIS UNIVERSITY™

## CANNABIS SCIENCE AND OPERATIONS, CERTIFICATE

+ School for Professional Studies

### ROADMAP

Roadmaps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

This roadmap should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor/mentor each semester. Requirements, course availability and sequencing are subject to change.

Course	Title	Credits
<b>Year 1</b>		
<b>Fall</b>		
<b>Fall 1</b>		
CSO 1000	Cannabis Fundamentals: Growing, Manufacturing & Dispensing	3
<b>Fall 2</b>		
CSO 1500	Cannabis Plant Science & Cultivation	3
		<b>Credits</b>
		<b>6</b>
<b>Spring</b>		
<b>Spring 1</b>		
CSO 1600	Cannabis Extraction & Product Production	3
<b>Spring 2</b>		
CSO 1700	Cannabis Compliance & Dispensing	3
		<b>Credits</b>
		<b>6</b>
<b>Summer</b>		
CSO 2000	Pharmacological Properties of Cannabis	3
CSO 2960	Cannabis Operations and Science Capstone	1
		<b>Credits</b>
		<b>4</b>
		<b>Total Credits</b>
		<b>16</b>

### CONTACT US

Apply for Admission (<https://online.slu.edu/cannabiscerts>)

For additional admission questions, please call 314-526-2825 or email [sps@slu.edu](mailto:sps@slu.edu).

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