



224 Pastore Hall, 51 Lower College Road, Kingston, RI 02881 USA p: 401.874.2616

Serial Number #19-20-28D

TO: President David Dooley

FROM: Bahram Nassersharif, Chairperson of the Faculty Senate

- 1. The attached BILL titled, the Curriculum and Standards Committee Report #2019-20-10: Creation of an Accelerated Online Undergraduate Certificate in Cannabis Studies, is forwarded for your consideration.
- 2. This BILL was adopted by vote of the Faculty Senate on April 16, 2020.
- 3. After considering this bill, will you please indicate your approval or disapproval. Return the original, completing the appropriate endorsement below.
- 4. In accordance with Section 10, paragraph 4 of the Senate's By-Laws, this bill will become effective May 7, 2020 three weeks after Senate approval, unless: (1) specific dates for implementation are written into the bill; (2) you return it disapproved; or (3) the University Faculty petitions for a referendum.

Bahram Nassersharif Chairperson of the Faculty Senate	April 16, 2020
ENDORSEMENT	
TO: Chairperson of the Faculty Senate	
FROM: President of the University	
a. Approved	
b. Approved with Notification to the University o	f Rhode Island Board of Trustees X.
c. Disapproved	
Signature of the President	April 30, 2020 (date)
	` /





FACULTY SENATE OFFICE

UNIVERSITY OF RHODE ISLAND FACULTY SENATE April 16, 2020

Faculty Senate Curriculum and Standards Committee Report 2019-2020-10

At the March 26, 2020 meeting of the Curriculum and Standards Committee and by electronic communication, the following matters were considered and are now presented to the Faculty Senate.

SECTION II

Curricular Matters Which Require Confirmation by the Faculty Senate

NEW PROGRAM

COLLEGE OF PHARMACY:

(Contact: Kristina Ward) (See Appendix O)

Biomedical and Pharmaceutical Sciences

Undergraduate Certificate in Cannabis Studies 7-week accelerated online program

The online Certificate in Cannabis Studies will consist of 4 three-credit courses. A foundational course will introduce the fundamentals needed to take the remaining courses in any order. It will also serve to acquaint the students with a limited science background to the key chemical and pharmacological principles necessary to successfully continue their studies. The remaining three courses will develop core competencies in natural product separation and analysis, safe product development and manufacturing, and the evaluation of the therapeutic potential of cannabis. Throughout the certificate program, the students will be working on a pinnacle assignment synthesizing the concepts in each course together and culminating with a real-world experience of researching and designing, in concept, a cannabis product.





Abbreviated Proposal form For All Programs including Certificates No New Funding

A Proposal for: Online Undergraduate Certificate in Cannabis Studies 7-week accelerated online

Date: March 2020

A. PROGRAM INFORMATION

A1. Name of institution University of Rhode Island

A2. Name of department, division, school or college

Department: Biomedical and Pharmaceutical Sciences

College: Pharmacy

A3. Title of proposed program and Classification of Instructional Programs (CIP) code

Program title: Undergraduate Certificate in Cannabis Studies Classification code (CIP): 51.2010 Pharmaceutical Sciences

A4. Intended initiation date of program change. Include anticipated date for granting first degrees or certificates, if appropriate.

Initiation date: September 2020 First degree date: May 2021

A5. Intended location of the program

URI Online, Kingston Campus

A6. Description of institutional review and approval process

	<u>Approval Date</u>
Department	$\frac{3}{04}/2020$
College	3/06/2020
Curriculum & Standards	4/3/2020
Faculty Senate	4/16/2020
President of the University	4/30/2020

A7. Summary description of proposed program (not to exceed 2 pages)

The rapidly expanding cannabis industry requires a specialized knowledge base. At a rate of 22% annually, cannabis job growth is outpacing the healthcare and tech sectors and is anticipated to create over 500,000 jobs by 2022 (New Frontier Data). As regulations to protect consumer safety continue to grow, so does the demand for highly skilled professionals. Individuals within the cannabis space and clinicians whose patients seek advice on cannabis have reached out for a clearer understanding and the specialized skills necessary to safely and ethically perform their jobs. The online Certificate in Cannabis Studies was designed to meet the needs of these

students and the explosive job growth within the industry. Offering the certificate at the undergraduate level encourages the participation of those within the industry who may not have a science degree. The certificate will represent the first of its kind in the United States, and the online delivery model will allow for the flexibility necessary to accommodate students nationwide as well as working professionals. The overall goal of the program is to provide graduates with a depth of knowledge about the safe production and dissemination of cannabis-related information and products. Students completing the certificate will be able to 1) identify and evaluate sources of evidence-based information to make informed decisions related to therapeutics and cannabis production, 2) conceptually design reliable and safe cannabis products within the framework of an existing regulatory environment, and 3) apply knowledge of the bioactivity of cannabis to effectively assess treatment options to support and advise clients and healthcare providers.

The online Certificate in Cannabis Studies will consist of 4 three-credit courses. A foundational course will introduce the fundamentals needed to take the remaining courses in any order. It will also serve to acquaint the students with a limited science background to the key chemical and pharmacological principles necessary to successfully continue their studies. The remaining three courses will develop core competencies in natural product separation and analysis, safe product development and manufacturing, and the evaluation of the therapeutic potential of cannabis. Throughout the certificate program, the students will be working on a pinnacle assignment synthesizing the concepts in each course together and culminating with a real-world experience of researching and designing, in concept, a cannabis product.

The skills developed through the certificate program will prepare students for the evolving and expanding cannabis industry. Students who successfully complete the certificate will be highly competitive in several areas of the cannabis industry including sales, dispensary management, laboratory technicians, quality compliance, and product development/manufacturing. Clinicians and caregivers who counsel patients as well as investors, entrepreneurs, and policy makers who have a need to better understand the science and technology of cannabis will also benefit from the program.

The online Certificate in Cannabis Studies aligns with the academic vision of the University and aids in the achievement of several of the goals of the strategic plan. The program aspires to enhance student success through the use of an innovative online learning environment and engaging pedagogical approaches including problem-based learning, both strategies of Goal 1 in the Academic Strategic Plan. It will expand scholarship with an emphasis in health and sciences and develop the workforce to enhance public safety which supports Goal 2, Strategies 1 and 3.

A8. Signature of the President

Saucenduly

David M. Dooley

A9. Person to contact during the proposal review

Name: Stephanie Forschner-Dancause Name: Provost DeHayes

Title: Lecturer Title: Provost/VP Academic Affairs

Phone: 401-874-5517 **Phone:** 401-874-4410

Email: sdancause@uri.edu Email: officeofprovost@etal.uri.edu

A10. List and attach any signed agreements for any cooperative arrangements made with other institutions/agencies or private companies in support of the program.

None

B. RATIONALE: There should be a demonstrable need for the program.

B1. Explain and quantify the needs addressed by this program, and present evidence that the program fulfills these needs.

Upon completion of the Certificate in Cannabis Studies, graduates will have a depth of knowledge about the safe production and dissemination of cannabis-related information and products. Students will be able to 1) identify and evaluate sources of evidence-based information to make informed decisions related to therapeutics and cannabis production, 2) conceptually design reliable and safe cannabis products within the framework of an existing regulatory environment, and 3) apply knowledge of the bioactivity of cannabis to effectively assess treatment options to support and advise clients and healthcare providers.

B2. What is the economic need and workforce data related to the program?

The cannabis industry is a multi-billion dollar industry. Global cannabis sales grew in 2018 to \$10.9B from \$3.4B in 2014. They are projected to reach \$40.6B by 2024 according to research from Arcview Market Research and BDS Analytics (State of Legal Cannabis Markets, 2019) representing a compound annual growth rate of 28.2% over a decade. Currently, twelve states have legalized adult marijuana use and 33 allow for legalized medicinal use. According to the Pew Research Center, 67% of American's support marijuana legalization. Hemp production in the United States is also soaring from under 10,000 acres in 2017 to over 120,000 acres in 2019 as a result of the 2018 Farm Bill. As the markets continue to expand, so does the need for qualified professionals.

Cannabis jobs in the United States have nearly quadrupled since 2016 from about 200 postings per million to over 900 posting per million (Indeed.com). December 2018 saw 1,512 cannabis industry job openings in the United States, a 72% increase over December 2017 (Glassdoor Economic Research). New Frontier Data estimates that the cannabis industry will employ over 630,000 workers by 2025. Current employers are plagued by a shortage of qualified applicants and express difficulty in retaining trained employees who are consistently recruited by competing firms.

B3. Provide information on jobs available as a result of successfully completing the certificate or degree: job titles, job outlook/growth, and salaries.

Students who successfully complete the certificate will be able to apply their skills to a variety of jobs within the cannabis space. Jobs may include cannabis sales, brand

ambassador, cannabis laboratory technician, quality compliance/assurance technician, dispensary managers, and product development. The specialized skills gained through the certificate will enable our students to be highly competitive in the cannabis job market. In addition, we believe our students will include entrepreneurs, investors, and clinicians who will apply the knowledge gained through the certificate to further their own professional development. Within the cannabis industry, average salaries increased 16.1% between 2017 and 2018 (Vangst). The median salary is \$58,511 annually, almost 11% higher than the US median (Glassdoor Economic Research).

- C. INSTITUTIONAL ROLE: The program should be clearly related to the published role and mission of the institution and be compatible with other programs and activities of the institution.
 - C1. Explain how the program is consistent with the published role and mission of the institution and how it is related to the institution's academic planning.

The Certificate in Cannabis Studies aligns with the academic vision of the University and aids in the achievement of several of the goals of the strategic plan.

Offering the program in the accelerated 7-week online format will allow for student with a passion for inquiry who have obstacles which prevent them from being on campus to succeed. The program's use of problem-based learning through the threading of a single project through all four courses, the promotion of interactions between students/faculty and student/student using highly interactive discussion forms, and the creation of information literacy by evaluating sources for credibility aim to fulfill Goal 1, Strategy 1. We believe many students outside of the sciences will be interested in the program. By offering the certificate, we aim to realize Goal 1, Strategy 3 to expand modes of course delivery and allow for the exploration of other areas of study. In whole, the program aspires to enhance student success through the use of an innovative learning environment and engaging pedagogical approaches.

Being one of the first programs and the first undergraduate certificate in cannabis studies, the University will be leading the way in the scholarship of the growing field to improve scientific rigor and address public health and safety concerns. Much of the current workforce in the cannabis industry is under skilled which represents a significant public health concern. The certificate program will expand scholarship with an emphasis in health and sciences and develop the workforce to enhance public safety which supports Goal 2, Strategies 1 and 3.

The cannabis industry is quickly becoming focused on social equity and justice as states such as Massachusetts and Illinois have built diversity, equity, and restorative justice into their regulations. We believe the certificate will embrace diversity and social justice, the aims of Goal 4, through recruitment efforts and open discourse.

- D. INTER-INSTITUTIONAL CONSIDERATIONS: The program should be consistent with all policies of the Council on Postsecondary Education pertaining to the coordination and collaboration between public institutions of higher education.
 - D1. Estimate the projected impact of this program on other public higher education institutions in Rhode Island (e.g. loss of students or revenues), provide a rationale for the assumptions made in the projections, and indicate the manner in which the other public institutions were consulted in developing the projections. Have you communicated with other institutions about the development of this program and have any concerns been raised related to role, scope, and mission or duplication.

There are no other programs in cannabis studies in the other public higher education institutions in Rhode Island. We have not directly communicated with other institutions about this program.

D2. Using the format prescribed by the Council on Postsecondary Education, describe provisions for transfer students (into or out of the program) at other Rhode Island public institutions of higher education. Describe any transfer agreements with independent institutions. The institution must also submit either a Joint Admissions Agreement transition plan or the reason(s) the new program is not transferable (see Programs).

Transfer agreements are not applicable to this proposed certificate program.

D3. Describe any cooperative arrangements or affiliations with other institutions in establishing this program. (Signed copies of any agreements pertaining to use of faculty, library, equipment, and facilities should be attached.)

No arrangements exist.

D4. How does this program align to academic programs at other institutions?

This is the first certificate in cannabis studies to be offered at the undergraduate level in the country.

D5. Are recipients of this credential accepted into programs at the next degree level without issue?

The program being proposed is an undergraduate certificate. Students taking the certificate could pursue a bachelor's degree program if they already don't have one. If they already have a bachelor's degree, the additional credential could strength their ability to be accepted into a graduate program.

D6. How does this program of study interface with degree programs at the level below them?

This program would be ideal for a student with an associate's degree interested in a career in the cannabis industry, especially Rhode Island Promise Scholars graduating from CCRI. It would also be useful for students with bachelor's degrees in other fields of study to gain the specialized skills necessary to enter the cannabis space.

D7. If external affiliations are required, identify providing agencies. (Indicate the status of any arrangements made and append letters of agreement, if appropriate.)

No such affiliations are required.

D8. Indicate whether the program will be available to students under the New England Board of Higher Education's (NEBHE) Regional Student Program (RSP).

This is not applicable under the accelerated online program.

- E. PROGRAM: The program should meet a recognized educational need and be delivered in an appropriate mode.
 - E1. Prepare a typical curriculum display for one program cycle for each sub-major, specialty or option, including the following information:
 - a. Name of courses, departments, and catalog numbers and brief descriptions for new courses, preferably as these will appear in the catalog.

Courses will be offered through the Biomedical and Pharmaceutical Sciences Department in the College of Pharmacy. The foundational course, BPS 206 will be a prerequisite for the three other courses which can be taken in any order. The first cohort's offerings will be in the following order.

Fall semester, session 1

BPS 206 Foundations of Cannabis Studies (3 credits)

In this course, student will gain an understanding of the history of cannabis in the United States and the legislation and regulations that continue to shape its medical and recreational use. The ethical issues surrounding cannabis will be explored, and students will learn to evaluate the credibility of various sources of cannabis information. The endocannabinoid system will be introduced in addition to the pharmacology of the major phytocannabinoids, THC and CBD. This course will lay the foundation for the remaining requirements of the certificate in cannabis sciences.

Fall semester, session 2

BPS 316 Cannabis Product Development (3 credits)

Students will gain knowledge about the development of safe cannabis products for therapeutic use. The process begins with extraction and purification of plant material. Analytical testing methods for quantification of cannabinoids and identification of contaminants will be described. Formulation and drug delivery forms will be evaluated. The student will be introduced to good

manufacturing practices (GMPs) for the production of safe, reliable therapeutic products.

Spring semester, session 1

BPS 312 Cannabis Chemistry and Pharmacognosy (3 credits)

The cannabis plant will be explored through the lens of the natural products it produces. Various cannabinoids, flavonoids, terpenoids, and other classes of natural products will be described. Methods for the extraction and separation of the natural products will be evaluated. Students will be introduced to the biosynthetic pathways that produce the products and form the genetic basis for strain variability. Differences in compound ratios of diverse strains and the effect it has on therapeutic outcomes will be examined. Finally, the entourage effect between the cannabinoids and the other chemical constituents of cannabis will be investigated.

Spring semester, session 2

BPS 314 Cannabis Therapeutics (3 credits)

This course will investigate the therapeutic effects of cannabis on various medical conditions by exploring physiology, pathophysiology, and the cannabinoids' mechanism of action. Evidence-based research and case studies will be used to evaluate the effectiveness of treatment. Side effects, drug interactions, and other risks will be examined. Different routes of administration and the effect on bioavailability will be evaluated.

b. Are there specializations and/or tracks/options/sub-plans/concentrations? If so, describe required courses in area of specialization or tracks/options/sub-plans/concentrations.

The certificate program will not have any specializations or tracks, etc.

c. Course distribution requirements, if any, within program.

Students must take the foundational course BPS 206 prior to proceeding with the other courses in the certificate. The remaining three courses can be taken in any order.

d. Total number of free electives available after specialization requirements are satisfied.

Not applicable

e. Total number of credits required for completion of program or for graduation. Present evidence that the program is of appropriate length as illustrated by conformity with appropriate accrediting agency standards, applicable industry standards, or other credible measure, and comparability of lengths with similar programs in the state or region.

Students are required to complete 12 credits to earn the Certificate in Cannabis Studies. If taken over 4 consecutive accelerated 7-week online sessions, the time to certificate will be two semesters or 8 months.

f. Identify any courses that will be delivered or received by way of distance learning (refer to <u>Policy on Distance Learning, Council on Postsecondary Education, State of Rhode Island and Providence Plantations</u>).

All courses offered in the proposed certificate program will be offered online, in an asynchronous format through URI Online.

g. Is the program content guided by program-specific accreditation standards or other outside guidance?

No

E2. Describe certification/licensing requirements, if any, for program graduates and the degree to which completion of the required course work meets said requirements. Indicate the agencies and timetables for graduates to meet those requirements.

None

E3. Include the learning goals (what students are expected to gain, achieve, know, or demonstrate by completion of the program) and requirements for each program.

Graduates will have a depth of knowledge about the safe production and dissemination of cannabis-related information and products.

Specifically, students completing the Certificate in Cannabis Studies will be able to:
1) identify and evaluate sources of evidence-based information to make informed decisions related to therapeutics and cannabis production, 2) conceptually design reliable and safe cannabis products within the framework of an existing regulatory environment, and 3) apply knowledge of the bioactivity of cannabis to effectively assess treatment options to support and advise clients and healthcare providers.

E4. Demonstrate that student learning is assessed based on clear statements of learning outcomes and expectations.

See attached Student Learning Outcomes Assessment Plan. Note that a student learning outcome assessment timeline and associated rubrics are not required at this time for certificate programs.

E5. Provide an assessment plan detailing what a student should know and be able to do at the end of the program and how the skills and knowledge will be assessed. Consult with the Office of Student Learning, Outcomes Assessment, and Accreditation (SLOAA) to prepare a Learning Outcomes Assessment Plan for student learning assessment. Following consultation, submit a final draft of the plan to the Chair of the Learning Outcomes Oversight Committee (LOOC) for approval by the full Learning Outcomes Oversight Committee.

See provided New Program Assessment Plan Review.

- F. FACULTY AND STAFF: The faculty and support staff for the program should be sufficient in number and demonstrate the knowledge, skills, and other attributes necessary to the success of the program.
 - F1. Describe the faculty who will be assigned to the program. Indicate total full-time equivalent (FTE) positions required for the program, the proportion of program faculty who will be in tenure-track positions, and whether faculty positions will be new positions or reassignment of existing positions. What are the minimal degree level and academic/technical field requirements and certifications required for teaching in this program?

All faculty assigned to teach in the program are Ph.Ds in the Department of Biomedical and Pharmaceutical in the College of Pharmacy and are qualified to teach the course content. Stephanie Forschner-Dancause, a lecturer, will serve as the program coordinator and be responsible for developing and delivering course content. Navindra Seeram, Matthew Bertin, and Saleh Allababidi, full professor, assistant professor, and lecturer respectively, will be responsible for developing and delivering course content. All faculty involved in teaching will undergo online pedagogy training through ATL. We estimate 1.0 FTE will be shared by all involved. No new positions are required.

- G. STUDENTS: The program should be designed to provide students with a course of study that will contribute to their intellectual, social, and economic well-being. Students selected should have the necessary potential and commitment to complete the program successfully.
 - G1. Describe the potential students for the program and the primary source of students. Indicate the extent to which the program will attract new students or will draw students from existing programs and provide a specific rationale for these assumptions. For graduate programs, indicate which undergraduate programs would be a potential source of students.

Through our interactions with those in the cannabis industry in the region, we have found that employees are being pulled from a broad range of backgrounds including associate's and bachelor's degree holders in non-science fields, tradespeople, and individuals with little or no post-secondary education. We anticipate that our potential students will have similar wide-ranging backgrounds and have designed the foundational course to ensure their success in the program. The program will draw from those currently in the cannabis industry who lack the specialized skills necessary to comply with current and evolving regulations and those that are looking to competitively enter the industry. From the broader community, we anticipate the program will be of interest to clinicians and caregivers that counsel patients as well as investors, entrepreneurs, and policy makers that have a need to better understand the science and technology of cannabis. Over the past couple of years, people from all of these backgrounds have reached out to the department looking for information and advice proving the need and desire for such a program.

Since the certificate will be offered in the accelerated 7-week online delivery model, the program will be unavailable to students currently enrolled in degree granting programs on campus. Therefore, the program will not draw student away from existing programs at the University and will instead be targeting a new student population outside of the existing University students.

Students will be selected for admission by a committee comprised of the program director and two BPS faculty members involved with the certificate program. Students will be evaluated for admission based on 1) prior education and/or work experience in the field demonstrated by transcripts and/or a resume, 2) the ability to successfully complete course work based on recommendation letters, and 3) a match of career goals with the objectives of the program based on a personal written statement detailing the reasons for seeking the Certificate in Cannabis Studies. Broadly worded questions regarding pending charges, convictions, or pleas of guilt or no contest to a criminal offense will be included in the application process, although answering yes (with explanation) will not be automatic grounds for a denial of admission. Students without a chemistry and/or biology background will be required to complete optional modules within the first foundational course to ensure their continued success in the program. All courses will require a minimum grade of a C to be applied toward the certificate.

We anticipate attracting 5-10 students during the first cohort and expect enrollment will build to 15-30 students per cohort as the program matures and becomes more visible. The program is design for students (primarily adult learners) to take one course per 7-week online session thus completing the certificate in 4 consecutive sessions. With three cohorts entering per year, the annual enrollment is expected to be between 10-30 students for the first year and build to 45-90 students annually. Northern Michigan University started a bachelor's degree program in medicinal plant chemistry focusing on cannabis chemistry two years ago. In two years, their enrollment grew from 0 to 230 students.

- H. EVALUATION: Appropriate criteria for evaluating the success of a program should be developed and used.
 - H1. List the performance measures by which the institution plans to evaluate the program. Indicate the frequency of measurement and the personnel responsible for performance measurements. Describe provisions made for external evaluation, as appropriate.

Three metrics will be used to evaluate the program: 1) number of applicants per cohort (entry 3 times per year during session 1 of each semester), 2) course enrollment per semester, and 3) certificate completion per year. Each metric will be evaluated annually by the program director in conjunction with the department chair and faculty involved with the program.

I. IS THE PROGRAM FINANCIALLY VIABLE?

I1. ALL PROPOSALS: Complete the Rhode Island Office of Postsecondary Commissioner <u>Budget Form</u> demonstrating that existing funds are sufficient for carrying out the program. The completed proposal with Budget Form requires review by the URI Budget and Financial Planning Office. Proposers shall request a Statement of No Financial Impact from the URI Budget and Financial Planning Office.

See provided Academic Program Budget Form.

From: Peter Harrington [mailto:pjhlaw@uri.edu]

Sent: Monday, April 6, 2020 5:00 PM **To:** E Paul Larrat < <u>larrat@uri.edu</u>>

Cc: Louis Saccoccio < lislaw@uri.edu >; nseeram@uri.edu

Subject: FW: HELP - Online Certificate in Cannabis Studies proposals

Hi Again Paul -

Thanks again for speaking just now about this.

As I mentioned, we did some further research, and spoke to a few legal colleagues at other institutions about it, and while we were not able to find any definitive answer, one way or the other, to our main question below (i.e. whether offering such a program would be deemed by ED or other federal regulators to violate the Drug Free Schools and Communities Act ("DFSCA"), the most central provision of which requires institutions of higher ed that receive federal funding to certify annually that they have "adopted and implemented a program to prevent the unlawful possession, use, or distribution of illicit drugs and alcohol"), we did learn that a number of other universities presently do offer degree- and non-degree- courses and programs in some aspect of cannabis/marijuana studies. The most prominent one appears to be the University of Maryland's 2-year graduate program entitled "Master of Science in Medical Cannabis Science and Therapeutics", information about which can be found here: https://www.pharmacy.umaryland.edu/academics/ms-medical-cannabis-scienceand-therapeutics/. Other cannabis courses and programs at the undergraduate level are offered at a handful of other universities as well, as this article explains: https://www.leafly.com/news/industry/higher-education-university-cannabisdegree

While this does not mean our proposed certificate program is definitively "legal" per se, it is helpful to know that if we did go ahead with it, we would not be the only school offering such a program (giving us some degree of "comfort in numbers so to speak").

I think our best argument in support of the proposition that our proposed course does NOT violate the DFSCA is that our **course would not promote**, **or cause or enable in**

any way, the possession or use of illegal drugs by URI students, on or off the URI Campus. In fact, our anti-drug and anti-alcohol programs at URI strongly discourage and penalize the illegal use of drugs and alcohol by our students, and our course would only educate people about various aspects of the cannabis industry, with a main focus we understand on hemp and its derivatives (as opposed to marijuana, a controlled substance).

Since the course, as you say below, will not involve the possession or transportation of marijuana, it will not violate the Controlled Substances Act.

And although there is no guarantee that the U.S. Department of Education will not take the position that the offering of the certificate program violates the DFSCA, we at least have a pretty strong argument that it does not, or should not.

On that basis of the foregoing, we think that URI's senior leaders could reasonably decide to "assume the relatively minor risk" of the "unlikely but not inconceivable possibility of an adverse future enforcement action under the DFSCA by ED against URI", and decide to go ahead with the program.

I hope this is somewhat helpful, but please let me know if you have any questions, or would like to discuss this further.

Thank you again for checking in with our office on this.

Peter Harrington & Lou Saccoccio

Office of the General Counsel



LEARNING OUTCOMES
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Kingston, RI02881 www.uri.edu/assessment



March 9, 2020

Dear Ms. Forschner-Dancause.

As Chair of the Learning Outcomes Oversight Committee (LOOC), I am pleased to sed you an update regarding the statues of the Undergraduate certificate in Cannabis Studies. The LOOC Sub-Committee, comprised of three faculty members, has carefully reviewed the Plan and commends you on launching this innovative certificate program.

At this time, the Committee Members concur with the previous review of your program and approve your program. I am attaching the three documents you will need to include in your proposal after approval is granted at the next level. Each document is saved as a PDF. (Please inform me if you require a different format.)

Thank you for your program submission, and best of luck in the final stages of the approval.

Sincerely,

Susan Trostle Brand, Chair, LOOC Professor, School of Education



ACADEMIC PROGRAM ASSESSMENT PLAN

Date SLOAA review: 03/20
Date LOOC* review:

*(LOOC Chair and review subcommittee)

All new programs and certificates must have clearly articulated program goals (Section I) and student learning outcome statements linked to curriculum and course experiences/requirements (Section II). The Curriculum Map guides programs in to present the extent to which their student learning outcomes are aligned with courses and other program requirements intended to provide students with opportunities to develop and master the learning outcomes by graduation. Each program (not certificates) will also create an Assessment Timeline (Section III) indicating when and how learning outcomes assessment will take place. All undergraduate and graduate programs are encouraged to create a sixyear (3 rounds) Assessment Plantoguide assessment reporting.

If you have questions or need assistance, please contact the Office of Student Learning, Outcome Assessment, and Accreditation (SLOAA) at assess@uri.edu.

	Program Information								
Program:	Cannabis Studies								
Academic year plan submitted:	2019-2020								
Degree(s):	Certificate								
Department Chair:	Navindra Seeram								
Program Director:	Stephanie Forschner-Dancause								
Accredited Program:	No ☐Yes; specify year next accreditation report due:								
Published learning outcomes (URL):	Program learning outcomes will be published on the new program's website upon program approval.								

Section I. Program Goals:

Broad, general statements of what it means to be an effective program in terms of student learning outcomes; what the program wants students to know and be able to do upon completion of the program. Goals should relate to the mission of the department, college, and university in which the program resides. Success in achieving Goals is evaluated directly or indirectly by measuring specific outcomes (Section II) related to the goal.

Goal 1

Graduates will have a depth of knowledge about the safe production and dissemination of cannabis-related information and products.

*Add/delete lines as necessary

Updated September 2019



PROGRAM ASSESSMENT PLAN

Section II. Curriculum Mapping:

Across the top of the matrix, list courses and other requirements for the program. Order the requirements from left to right in rough chronological/developmental sequence and add a standard description of your program requirements. Down the side, list program student learning outcomes associated with goals. Using the **Map Key** below, indicate the degree to which an outcome will be taught and assessed in relevant courses and by other program requirements. Use "*" to identify the best assessable moments in the curriculum.

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Student Learning Outcomes (Competencies) by Goal: Statements of observable, measurable results of the educational experience, linked to program goals (Section I), that specify what a student is expected to know or be able to do throughout a program; these must be detailed and meaningful enough to guide decisions in program planning, improvement, pedagogy, and practice.		BPS 206 (required)	BPS 312	BPS 314	BPS 316									
Goal 1	Identify and evaluate sources of evidence-based information to make informed decisions related to therapeutics and cannabis production	I	R	Е										
Goal 2	Design reliable and safe cannabis products within the framework of an existing regulatory environment	I	R		R, E									
Goal 3	Apply knowledge of the bioactivity of cannabis to effectively assess treatment options to support and advise clients and healthcare providers	I		R, E										

^{*}Add/delete lines as necessary

Updated September 2019 2



PROGRAM ASSESSMENT PLAN

[A timeline for assessment is not needed: At this time, certificates are not included in the institutional timeline for program-level assessment.]

Section III. Assessment Timeline: Indicate when and how student learning will be assessed based on learning outcome statements and expectations. Refer to the curriculum map to propose an assessment timeline in which the program will plan to assess student learning outcomes. Specify a 6-year plan for assessment to represent 3 two-year reporting periods:

- Assessment Reporting Period 1: the first academic year in which the program would plan to assess at least one outcome.
- Assessment Reporting Period 2: follows two years later, with plans defined for assessing another outcome(s).
- Assessment Reporting Period 3: follows two years later, with plans defined for assessing additional outcome(s).

All goal areas should be assessed by at least one outcome within the 6-year plan.

	Student Learning Outcome(s)	Course(s) and Other Program Requirements	Assessment Evidence of Student Learning	Assessment Method of Student Learning
Academic Years	WHICH outcome(s) will you examine in each period (use number(s) from curriculum map, e.g. 1.1)?	WHERE will you look for evidence of student learning (i.e., what course(s)/program requirements)? Designate for each outcome.	WHAT direct/indirect student work or other evidence of student learning will you examine in order to generate conclusions and recommendations? Designate for each requirement.	HOW will you look at the evidence; what means and process will you use to evaluate student learning (e.g., rubric, analysis of test scores, etc.)? Designate for each evidence
Assessment				source.
Reporting Period 1				
Report Due May				
20 <u>XX</u> *				
Assessment				
Reporting Period 2				
Report Due May				
20 <u>XX</u>				
Assessment				
Reporting Period 3				
Report Due May 20XX				

^{*} Initial reporting year is established by the program and will depend on the anticipated timeframe for program implementation.

Updated September 2019 3

THE UNIVERSITY OF RHODE ISLAND

NEW CERTIFICATE ASSESSMENT PLAN REVIEW

Date SLOAA review: 3/5/2020 Date LOOC* review: 3/9/2020

*(LOOC Chair and review

Academic Program/Degree: Cannabis Studies Certificate (undergraduate)

College: College of Pharmacy

Date New Program Assessment Plan Submitted: March 2020

Faculty Member(s) Submitting Plan Proposal: Navindra Seeram, Stephanie Forschner-Dancause

Strengths:

SLOAA:

- The Assessment Plan details the knowledge and skills students will acquire as they earn this undergraduate certificate which was designed in the online environment and supports flexible course-taking.
- The one required initial course lays the foundation for strong information literacy skills going forward to support continued learning as this industry grows.
- A research project threads across all courses allowing students to apply skills and knowledge while building an integrated framework for understanding best practice in cannabis therapeutics and production through real-world application.

LOOC:

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- The program includes one clear goal and three measurable outcomes all of which are introduced in the foundations course.
- The map, goals, and outcomes are all clearly defined.
- The single projects woven into three courses leads well to the capstone experience and demonstrates real world skills.
- As the first of its kind program in the United States, this program is innovative and important; it may become a model for other programs.

Suggestions for improvement:

SLOAA: Program responded to recommendations for minor revisions during consultation.

LOOC: The committee recommends rewording the outcomes so that they do not suggest a level of competency that would be difficult to attain given only 12 credits.

- For example, in outcome two, "creating reliable and safe products..." might be reworded specifically to the task at hand, such as "creating an artifact cannabis product..."
- In outcome three, "develop treatment options to support and advise clients, healthcare providers...." This type of behavior seems too close to the role of medical doctors.

Issue(s) of note:

SLOAA: Consider an "overlay" requirement (bridge the learning knowledge and skills) at the completion of courses and the research project to promote (and capture) the students' ability to articulate their comprehensive knowledge, skills and understanding of cannabis production and therapeutics.

е

LOOC: Clarify whether or not Stephanie Forschner-Dancause will be teaching any of the program's courses. The wording seems contradictory, since earlier in the proposal, it is stated that only professors who hold PhD degrees will teach the Cannabis Studies courses; later, the proposal states that Ms. Forschner-Dancause will develop and deliver course content.

Assessment Plan Designation:								
1 X	2	3						
The Assessment Plan is ready for implementation.	The Assessment Plan can be implemented after minor revisions, as indicated, and does not require further review.	The Assessment Plan requires revisions, and should be submitted for further review after revisions, by date:						

		Program Information			Rev	viewer Rating	s & Comments
		Information box complete	Yes	Incomplete	Suggestion	ns:	
			Effic	cacy of Plan D	escription & Co	ontent	Suggestions for improvement
		Criteria	Less Developed	Developing	Well Developed	Not addressed	
P	1.	Program goals					
A	a.	Broad statements of program learning goals	_	_			
T	b.	Limited in number (ideally 2-5)	_	_	_	_	
I							
	2.	Learning outcomes/competencies					
	a.	Linked to goals (numbered 1.1 etc.)		_			
P	b.	Each goal is represented by at least one outcome	-	-	-	-	
Α	c.	Statements are observable/measurable					
R T	d.	Directed at what students will know or be able to do	-	-	_	-	
II	e.	Reasonable number (ideally 1-3 per goal)	-	_	_	_	
	3.	Curriculum Map					
	a.	Program requirements are listed, developmentally when possible	-	-	_	_	

b.	Outcomes are linked to appropriate	_	_	_	_	
	requirements					

At th	meline for assessment is N/A: his time, certificates are not included in the itutional timeline for program-level essment.]			Re	viewer Rat	ings & Comments		
	Cuitouio	Effi	cacy of Plan De	escription & Co	ntent	Suggestions for improvement		
	Criteria	Less Well Not Developing Developed addressed				[A timeline for assessment is N/A: Atthis time, certificates are not included in the institutional timeline for program-level assessment.]		
	4. Assessment Timeline (3-year plan)							
	a. Assessment Reporting Period 1 is thoroughly presented	_		_	_			
	b. Assessment Reporting Periods 2 and 3 are presented	-	-	-	-			
	c. All goals are represented by at least one outcome somewhere in the 3 reporting periods	-	—	_	-			
P A	d. Requirements are clearly stated and connected to outcomes (from Curriculum Map)	-		-	-			
R T	e. Evidence is stated for each designated outcome	_		_	_			
Ш	f. Selection of evidence takes advantage of existing indicators	-	-	-	_			
	g. Evidence is stated in enough detail to guide assessment activities	-	-	-	-			
	h. Evidence is feasible for collection within the timeline	_	-	-	_			
	Methods for quantifying evidence are stated for each designated outcome	_	-	-				
	j. Methods are appropriate for evidence	_	_	_	-			





BUDGET AND FINANCIAL PLANNING

Adams House, 85 Upper College Road, Kingston, RI 02881 USA

p: 401.874.2509

web.url.edu/budget

DATE: March 18, 2020

TO: Margaret Benz

Coordinator, Faculty Senate

FROM: Linda Barrett

Director, Budget and Financial Planning

SUBJECT: Proposal f,' an online Undergraduate Certificate in Cannabis Studies

As requested in an email from Patricia Murray, Business Manager in the College of Pharmacy, dated March 9, 2020, the Budget and Financial Planning Office has reviewed the budget related to the proposal for an online Undergraduate Certificate in Cannabis Studies.

The Budget and Financial Planning Office, including communication with the Vice Provost of Faculty Affairs, concurs that the Undergraduate Certificate in Cannabis Studies will have a small positive net revenue impact on the Fund 106 budget as it has been presented.

However, communication with Enrollment Services indicates that as we approach a significant number of students in online programs, additional support staff will be needed in that department.

Please let us know if you require any further information.

cc: Donald DeHayes Cheryl Hinkson

Dean Libutti Colleen Robillard
Matt Bodah Anne Veeger
Paul Larrat Denise Gorenski

Navindra Seeram Stephanie Forschner-Dancause

Nasser ZawiaJoanne LawrenceJohn HumphreyKelly SlocumDiane GoldsmithDeborah MessnerBrenton DeBoefPatricia Murray

Jill Firtell

Office/OudgetImpactStatements/UndergradCertinon!ineInCannabtsstudies/BudgetfmpactStatementletter.final

ACADEMIC PROGRAM BUDGET FORM

Use this form for programs that can be pursued on a full-time basis, part-time basis, or through a combination of full-time and part-time attend Bage. 1 of 3

Choose one:

Full-time x

Part-time Combination of full- and part-time

REVENUE ESTIMATES									
	Yea	ar 1	Yea	ar 2	Yea	ar 3	Yea	ar 4	
	202	21	20	22	20	23	20)24	
Tuition: In-State	\$	0	\$	0	\$	0	\$	50	
Tuition: Out-State			,					-	
Tuition: Regional									
Mandatory fees per student	\$	0	\$	0	\$	0	\$	50	
FTE # of New Students: In-State	()	()	()	()	
FTE # of New Students: Out-State									
#ofIn-State FTE students transferring									
in from the institution's existing									
programs									
# of Out-State FTE students									
transferringin from the institution's									
existing programs									
Tuition: One Rate	\$6,	456	\$6,	636	\$6,	636	\$6.	636	
	72,		+=,		4 -,		+- ,		
					_	_			
# of New Students	5		7			8	_	00	
TUITION AND FEES	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	
First Year Students	revenue	existing programs	revenue	cxisting programs	revenue	existing programs	revenue	CXISTING Programs	
In-State tuition	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Out-of-State tuition	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Regional tuition	\$0.00	ψ0.00	\$0.00	ψ0.00	ψ0.00	\	ψ0.00	\$0.00	
Mandatory fees	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
One-Rate Tuition	\$322,800.00	ψ0.00	\$481,110.00	ψ0.00	\$580,650.00	\$0.00	\$597,240.00	ψ0.00	
Second Year Students	\$022,000.00		\$101,110.00		4000,000.00		\$007,210.00		
In-State tuition			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Out-of-State tuition			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Regional tuition			ψ0.00	ψ0.00	ψ0.00	ψ0.00	ψ0.00	ψ0.00	
Mandatory fees			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
One-Rate Tuition			\$0.00	ψ0.00	\$0.00	ψ0.00	\$0.00	ψ0.00	
Third Year Students			\$0.00		ψ0.00		ψ0.00		
In-State tuition					\$0.00	\$0.00	\$0.00	\$0.00	
Out-of-State tuition					\$0.00	\$0.00	\$0.00	\$0.00	
Regional tuition					ψ0.00	\$0.00	ψ0.00	\$0.00	
Mandatory fees					\$0.00	\$0.00	\$0.00	\$0.00	
One-Rate Tuition					\$0.00	\$0.00	\$0.00	ψ0.00	
Fourth Year Students					ψ0.00		ψ0.00		
In-State tuition							\$0.00	\$0.00	
Out-of-State tuition							\$0.00	\$0.00	
Regional tuition							71.11	71.00	
Mandatory fees							\$0.00	\$0.00	
One-Rate Tuition							\$0.00	\$5.00	
Total Tuition and Fees	\$322,800.00	\$0.00	\$481,110.00	\$0.00	\$580,650.00	\$0.00	\$597,240.00	\$0.00	
	,	73122	, 101, 11011	73.55	7000,000	¥3.33	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	72.22	
GRANTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
CONTRACTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
OTHER (Specify)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Total Grants, Contracts, Other	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	****				A		A-		
TOTAL	\$322,800.00	\$0.00	\$481,110.00	\$0.00	\$580,650.00	\$0.00	\$597,240.00	\$0.00	

NOTE: All of the above figures are estimates based on projections made by the institution submitting the proposal.

ACADEMIC PROGRAM BUDGET FORM

Use this form for programs that can be pursued on a full-time basis, part-time basis, or through a combination of full-time and part-time attend?age.2 of 3

EXPENDITURE ESTIMATES								
	Year	1	Year	· 2	Year	. 3	Yea	r 4
	2021	l_	202	2022		3	2024	
	Additional resources required for program	Expenditures from current resources	Additional resources required for program	Expenditures from current resources	Additional resources required for program	Expenditures from current resources	Additional resources required for program	Expenditures from current resources
PERSONNEL SERVICES	, •	resources	. •	resources	. •	resources	. •	163001663
Administrators	\$6,000.00		\$6,000.00		\$6,000.00		\$6,000.00	
Faculty	\$39,499.00		\$40,684.00		\$41,904.00		\$43,161.00	
Support Staff	\$3,882.00		\$3,999.00		\$4,119.00		\$4,242.00	
Others								
Fringe Benefits %	\$2,679.00		\$2,759.00		\$2,842.00		\$2,927.00	
Total Personnel	\$52,060.00	\$0.00	\$53,442.00	\$0.00	\$54,865.00	\$0.00	\$56,330.00	\$0.00
OPERATING EXPENSES								
Instructional Resources	\$0.00							
Other (specify)	\$0.00							
Other (specify)	Ψ0.00							
Total Operating Expenses	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CAPITAL								
Facilities								
Equipment								
Other								
Total Capital	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NET STUDENT ASSISTANCE								
Assistantships	\$30,153.00		\$31,359.00		\$32,614.00		\$33,918.00	
Fellowships								
Stipends/Scholarships	\$27,595.00		\$28,342.00		\$28,370.00		\$28,370.00	
Total Student Assistance	\$57,748.00	\$0.00	\$59,701.00	\$0.00	\$60,984.00	\$0.00	\$62,288.00	\$0.00
TOTAL EXPENDITURES	\$109,808.00	\$0.00	\$113,143.00	\$0.00	\$115,849.00	\$0.00	\$118,618.00	\$0.00

NOTE: All of the above figures are estimates based on projections made by the institution submitting the proposal.

ACADEMIC PROGRAM BUDGET FORM

Use this form for programs that can be pursued on a full-time basis, part-time basis, or through a combination of full-time and part-time attendance. Page 3 of 3

	Year 1	Year 2	Year 3	Year 4
BUDGET SUMMARY OF COMBIN	2021 NED EXISTING AND NEW P	2022 ROGRAM	2023	2024
	LES EXIGNICATES NEW	NO OTO IIII		
Total Revenue	\$322,800.00	\$481,110.00	\$580,650.00	\$597,240.00
Total Expenses	\$109,808.00	\$113,143.00	\$115,849.00	\$118,618.00
Excess/Defeciency	\$212,992.00	\$367,967.00	\$464,801.00	\$478,622.00
BUDGET SUMMARY OF EXISTIN	IG PROGRAM ONLY			
Total Revenue	\$0.00	\$0.00	\$0.00	\$0.00
Total Expenses	\$0.00	\$0.00	\$0.00	\$0.00
Excess/Defeciency	\$0.00	\$0.00	\$0.00	\$0.00
BUDGET SUMMARY OF NEW PR	ROGRAM ONLY			
Total of Newly Generated				
Revenue	\$322,800.00	\$481,110.00	\$580,650.00	\$597,240.00
Total of Additional Resources				
Required for Program	\$109,808.00	\$113,143.00	\$115,849.00	\$118,618.00
Excess/Deficiency	\$212,992.00	\$367,967.00	\$464,801.00	\$478,622.00

NOTE: All of the above figures are estimates based on projections made by the institution submitting the proposal.

	Budget Justification																		
	•																		
NOTE: NOT	: Instructional design, QM review,	Provide Detail		expenses as repo	orted on your														
		Fall (4at)		l Year 2021 Summer	Year 1 Total	Fall (2nd)	Spring	Year 2022 Summer	Year 2 Total	Fall (3rd)		Year 2023 Summer	Year 3 Total	Fall (4th)	Fiscal Spring	Year 2024 Summer	Year 4 Total		
Porconnol E	xpense Details	Fall (1st)	Spring	Summer	rear 1 lotai	Faii (2nd)	Spring	Summer	rear 2 i otai	Faii (3rd)	Spring	Summer	rear 3 lotal	Fall (4th)	Spring	Summer	rear 4 lotal	Assume 39	inorogoofo
reisoillei L	Part-time Faculty	3,133		2,933	6.066	3,227	-	3,021	6,248	3,324		3,112	6,435	3,424		3,205	6,628	Saleh Allab	
	Part-time Faculty fringe	3,133		2,355	0,000	- 5,221	-		- 0,240				- 0,433		-		0,020	Jaiell Allab	abidi (Lectu
	Part-time Faculty	1,567	1,567	3,133	6,267	1,613	1,614	3,227	6,454	1,662	1,662	3,324	6,648	1,712	1,712	3,424	6,848	Matt Bertin	(Acet Prof)
	Part-time Faculty fringe	1,507	1,507	3,100	0,207	- 1,013	1,014	-		- 1,002	1,002		- 0,040	- 1,712	- 1,712		0,040	Watt Dertii	(101)
	Part-time Faculty	1.567	3.133	2.000	6.700	1.614	3.227	2.060	6.901	1.662	3.324	2.122	7.108	1,712	3,424	2.185	7.321	Navindra (ull Prof\3 c
	Part-time Faculty fringe	1,007	0,100	2,000	0,700	- 1,014	0,227	2,000		1,002	0,024	2,122	- 1,100	1,712	0,424	2,100	7,021	reavillata (i	uni ioijoo
	Part-time Faculty	6,767	7,833	5,867	20,467	6,970	8,067	6,043	21,080	7,179	8,309	6,224	21,713	7,394	8,559	6,411	22,364	Stephanie [Dancause (I
	Part-time Faculty fringe	0,101	1,000	0,001	20,101	-	-	-	21,000		-	0,22 1		- 1,001	-		-	Otopilarii o i	Janoadoo (E
	Faculty summer salary (# wks)			6.000	6,000	- 1		6,000	6,000	-	-	6.000	6.000		-	6.000	6,000	Stephanie I	Dancause 6.
	Part-time Faculty			5,000	-	-	-	-	-	-	_	-		-	-	-	-		
	Part-time Faculty fringe				-	-	-	-	-	-	_	-	-	-	-	-	-		
	Other (insert lines as needed)	11,488	11,488	7,177	30,153	11,948	11,948	7,464	31,359	12,425	12,425	7,763	32,614	12,922	12,922	8,073	33,918	TA Academ	ic Yr 20,000
	Administrative Support salary (#%)	3,882	.,	.,	3,882	3,999	-	-	3,999	4,119	-	-	4,119	4,242	-	-	4,242	Bus Mgr., e	
	Administrative Support fringe (#%)	2,679			2,679	2,759	-		2,759	2,842		-	2,842	2,927		-	2,927		,
Subtotal Per	sonnel Expenses	31,082	24,021	27,110	82,213	32,129	24,856	27,815	84,801	33,213	25,721	28,544	87,478	34,333	26,617	29,298	90,249		
Itemized Inst	ructional Resources Expenses																		
1					-				-				-				-		
2					-				-	-			-	-			-		
3					-				-				-				-		
- 4					-	l			-				-				-		
6					-	1			-				-				-		
Subtotal Inst	ructional Resources Expenses								-					_					
- Castotal IIIo	adional Roodalood Expenses					i													
Other Opera	ing Expenses																		
1	Tuition TA Out of State	13,798	13,798		27,595	14,171	14,171		28,342	14185	14185		28,370	14,185	14,185		28,370	TA Out of S	State Tuition
3					-				-	-			-	-			-		
					-				-	-			-	-			-		
4					-				-	-			-	-			-		
5					-	-			-	-			-	-			-		
7					-	+			-				-				-		
8					-				-	_			-	_			-		
9					-				-				-				-		
10					-	1			-								-		
					-				-				-				-		
Subtotal Oth	er Operating Expenses	13,798	13,798	•	27,595	14,171	14,171		28,342	14,185	14,185	-	28,370	14,185	14,185	-	28,370		
Total Annua	Expenses	44,880	37,818	27,110	109,808	46,300	39,027	27,815	113,143	47,398	39,906	28,544	115,848	48,518	40,802	29,298	118,619		
	The courses will be tought as suads = 1 him	ovieting Calls	o of Dharma	profossers and l	acturore														
	The courses will be taught as overload by	 																	
	A level 1 Graduate Assistantship will be engaged to provide assistance with classes A fiscal person will be identified to help with the business functions of the Program					 										 			
		Lanc Dagine		10g.am															
	Student Enrollment	Student Enrollment Projection																	
	Otavent Emoninent	- OJECH	V11																
	Familiar and according to		anatic · ·	de in alconter 4 1	abaldar '- N		aniforth Di	ada lel '	Commosticut	ad Mair -		L							
	Enrollment numbers are estimates ba	ased on conv	ersations wit	in industry stak	enolders in Nev	w ⊨ngland, sp	pecifically Rh	node Island,	Connecticut, ar	nd Maine.									
	In addition a source of the state of		NI. 11	Minking III			0 - 4 - 4 - 1	41- C		00:-11:	in al Di								
	In addition, a small regional state sch			ı Mıchigan Univ	ersity, saw enr	oliment of 230) students in	tne first two	years of their	B.S. In Medic	inal Plant								
	Chemistry which has a primary focus	on cannabis	cnemistry.													 			
																1			
																İ			