

Green Ribbon Schools Application
Rhode Island College
600 Mount Pleasant Avenue
Providence, RI 02908

Website: www.ric.edu **Facebook page:** <https://www.facebook.com/rhodeislandcollege>

President: Dr. Frank Sánchez Phone: 401-456-8101 email: fsanchez@ric.edu

Lead Applicant: James C. Murphy Phone: 401-456-8799 email: jmurphy2@ric.edu

The Rhode Island College community is dedicated to enhancing the environment of those that learn and work on our campus now and in the future. To that end, we are committed to environmentally friendly practices. Under the leadership of President Frank Sánchez, Rhode Island College is implementing many new initiatives that will decrease its carbon footprint and enhance our sustainability efforts.

Rhode Island College's first green and sustainability efforts date back to the last decades of the 20th century, however the growth and diversity of Rhode Island College's current programming are a result of a more recent campus-wide effort to make Rhode Island College a model campus for sustainable practices and programs.

Significant accomplishments include establishment of the Rhode Island College Green Team in 2009 and development of many green and cost-saving initiatives by campus offices and divisions related to waste reduction, recycling, energy efficiency, green cleaning, and sustainable planting. Environmental Studies and Sustainability programs have been developed for those entering the workforce to both undergraduate and post graduate study. These programs include Green Business Practices, Urban and Community Farming, the Sustainable Communities Initiative, Green Business Forum.

Rhode Island College's strength is in its commitment to exploring sustainability options with on- and off-campus partners. The addition of a sustainability coordinator, James C. Murphy, in 2012 has accelerated campus and community initiatives. While many challenges still exist, Rhode Island College is well on its way to becoming a sustainable campus and community partner in building a sustainable future.

Post-Secondary Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

College or University Certifications

The signature of college or university President (or equivalent) on the next page certifies that each of the statements below concerning the institution's eligibility and compliance with the following requirements is true and correct to the best of their knowledge.

1. The college or university has been evaluated and selected from among institutions within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
2. The college or university is providing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a compliance review.
3. OCR has not issued a violation letter of findings to the college or university concluding that the nominated college or university has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
4. The U.S. Department of Justice does not have a pending suit alleging that the college or university has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
5. There are no findings by Federal Student Aid of violations in respect to the administration of Title IV student aid funds.
6. The college or university is in good standing with its regional or national accreditor.
7. The college or university meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education Green Ribbon Schools Postsecondary 2015-2018

Public 4-Year Public 2-Year Private Non-Profit

Name of President/Chancellor: Dr. Frank Sanchez

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official College or University Name: Rhode Island College

(As it should appear on an award)

College or University Street

Mailing Address: 600 Mount Pleasant Ave. Providence, RI 02908

(If address is P.O. Box, also include street address.)

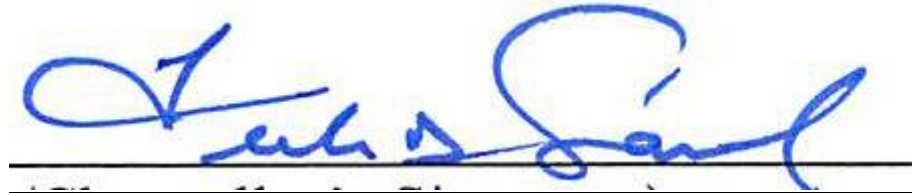
County: IPEDS Number*: 217420

Telephone: 401-456-8101 Fax: 401-456-8287

Web site/URL: www.ric.edu E-mail: fsanchez@ric.edu

*Integrated Postsecondary Education Data System

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.



Date: 1/25/2017

(President's/Chancellor's Signature)

Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the college or university's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The college or university has been evaluated and selected from among institutions within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
2. The college or university meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: Office of the Post-Secondary Commissioner

Name of Nominating Authority: Dr. Jim Purcell

(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

~~I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.~~



(Nominating Authority's Signature)

Date: 1/25/2017

(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent summary that describes how your college or university is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars and their underlying Elements. Then, include concrete

examples for work in every Pillar and Element. Only institutions that document progress in every Pillar and Element can be considered for this award.

SUBMISSION

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: March 31, 2018

Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

Pillar I: Reduce environmental impact and cost:

Element 1 A: Reduced or eliminated greenhouse gas (GHG) emissions

Rhode Island College is serviced by a central heating plant which utilizes both light oil and natural gas. The college prefers cleaner burning natural gas but is presently on an interruptible tariff. The college eliminated the use of heavy number 6 oil in 2009 for number 2 oil when oil use is necessary. This plant provides steam which is utilized for heat, hot water and in some building's steam absorption chillers for air conditioning. In association with the RI Office of Energy Resources through a program in 2014 the college, insulated boilers and pipes in buildings to minimize heat loss thereby burning less fuel. The college has increased its condensate return to an 87% return rate as a result of replacing condensate lines throughout the campus which uses less make up and consumes less fuel.

Buildings on campus are continuously being improved to incorporate more efficiency in lighting, heating and cooling with operation and design. All new construction, additions, or remodeling must comply with the State of RI mandate of LEED certification.

Rhode Island College has also contracted AMERESCO an energy performance contractor to implement fuel and electrical efficiencies across the campus that will guarantee an annual dollar savings over the next fifteen years. This project includes \$7.5 million in energy, electrical and water conservation measures.

In 2016 Rhode Island College started a LED lighting project where the goal is to have LEDs in all interior and exterior, decrease annual electrical consumption by 2.8 million kilowatt hours which will realize an annual savings of \$420,000. To date all of the lighting in the dormitories have been switched out to LEDs which will recognize a savings of 517,308 kilowatt hours. The financing of this project will be accomplished through almost \$700,000.00 in incentives from National Grid and on bill financing using the electricity cost savings to pay for the project. The project will pay for itself in less than four years.

Element 1 B: Improved water quality, efficiency, and conservation

As stated in Element 1 A, the college is using less water as a result of improving the condensate return to the central steam plant. From January of 2011 to January 2014 RIC has saved 370,170 gallons of raw water make up. The college is replacing faucets, toilets and shower heads with fixtures that use less water. AMERESCO is also implementing water conservation measures in the campus residence halls.

Rhode Island College utilizes Genesan cleaning products which is Green Seal Certified and a USDA certified bio based product. The use of these products eliminates hazardous toxins discharged into the campus wastewater system.

The college grounds crew regularly plants native plants that survive on rainfall rather than irrigation. The irrigated areas on campus are limited and used only in the prolonged absence of rain. Native ground cover is also being used to replace grass to minimize the use of water.

Alex and Ani Hall, Rhode Island College's newly renovated and expanded 52,600-square-foot art center, includes new state-of-the-art studios, classrooms, offices, computer labs, presentation areas and outdoor work courts. The extensive renovation of the college's art facility includes the replacement of much of the original 1958 building with a new structure designed specifically for studio art and art education. The water used in the ceramics and photography labs enters into a closed water system which is captured. The contaminated water is trucked off campus and remediated of its contaminants by a contractor, Triumvirate Environmental, without ever entering into the campus waste water stream.

Element 1 C: Reduced Waste Production

Rhode Island College is constantly pursuing the goal of increased recycling and waste minimization. Each year Rhode Island College graduates don caps and gowns that are made from recycled plastic water bottles. This apparel is then collected after graduation to be repurposed a second time into carpeting. The college has also worked with RI Resource Recovery at graduation in order to provide the necessary recycling bins to accommodate the crowd of eight thousand at commencement.

The college decreased the amount of trash from its roll off dumpsters by 55 tons from 2015 to 2016. This was done in large part by utilizing Goodwill Industries of Rhode Island. Goodwill has helped the college divert tens of thousands of pounds from the landfill by collecting our e-waste, used batteries and printer cartridges, as well as used clothing. Besides coming to campus throughout the year for scheduled pick-ups, Goodwill participates in Earth Week events in the spring, and the end of the year dormitory move outs.

Since May of 2014 the college has installed twelve water bottle filling stations in the Student Union, Donovan Dining Center, Fogarty Life Science, Physical Plant and Roberts Hall. Collectively they have eliminated over 80,000 plastic water bottles from entering our trash stream. The college also plans install these stations throughout the campus in any new construction or remodeling project going forward.

As Adams Library is taking books and journals that have been digitized off its shelves, Rhode Island College is working with North Star Recycling to find a useful purpose for this material.

These materials are brought to North Star where they are pulverized and repurposed into home insulation. To date Rhode Island College has diverted over 75 tons of materials from the landfill that originated from Adams Library.

In May of 2015 Gaige Hall, one of the college's most used classroom buildings, went off line for a major renovation. Gaige Hall was the first of a two building project on the campus paid for through bonds approved by Rhode Island voters. The building will be back online in the fall of 2017. During the renovation project 170.08 tons out of 187.85 tons of construction waste was diverted from the landfill. This amounted to a 90.5 % diversion rate. This was accomplished by offering out classroom furniture to other state agencies or schools in the state. Any and all scrap metal that could be salvaged was put out to bid and sold to metal recyclers. Finally the building contractors waste management plan had assurances and verifications for construction waste to be remanufactured. In the fall of 2017 Craig Lee Hall will go offline as the second of the two building project which holds LEED as the standard.

Element 1 D: Use of alternative transportation

The college has the Keefe Transportation Center on the campus which offers students access to public transportation via the Rhode Island Public Transit Authority (RIPTA). The RIPTA bus service offers students, faculty and staff a transportation option to over 50 points throughout the state. Zipcar is also available at the transportation center, offering students, faculty and staff the option of renting a car for short periods of time. The center also has an electric vehicle charging station where EV owners can charge their vehicles for up to four hours. There is a second EV station at the Physical Plant on campus which is part of the Charge Point System which has a mobile device application making it available to the general public. Students, faculty and staff are also given the opportunity to travel across campus in a shuttle that can be tracked utilizing a mobile app.

Pillar II: Improve the health and wellness of students and staff.

Element 2 A: Intergraded campus environmental health program

The Facilities and Operations Department, which is located in the Physical Plant on the Rhode Island College campus, oversees the all of the buildings and grounds. The department handles the maintenance of the buildings, endeavors to maintain a safe, healthy learning and working environment. Outside air is brought into all of the buildings and air filters are changed out as determined by best practice standards. The most frequented buildings on campus have the necessary carbon dioxide and radon sensors to detect changes in the air quality. Each building on the campus has custodial personnel to monitor any buildup of moisture and take the necessary mitigation steps before mold or mildew has a chance to develop. As stated in

Element 1 B the custodial crew utilizes the non-toxic, Green Seal Certified Genesan cleaning agents in all of the buildings on campus.

Element 2B:

Rhode Island College places the health and wellness of its students, faculty and staff as a primary goal. The college offers multiple services, programs, activities and supports that promote sound health and wellness practices. The college also takes a holistic approach to addressing physical, social and mental health. These elements form the health triangle, which when balanced, indicate total well-being.

While Student Affairs is the umbrella division for most programming associated with health and wellness, Rhode Island College's five schools (School of Nursing, Feinstein School of Education and Human Development, School of Social Work, Faculty of Arts and Sciences and School of Management), the Office of Human Resources, and very significantly, the Office of the President, have strong efforts in this area.

The following include, but are not limited to, health-related initiatives within Student Affairs:

- Health Services - treating students with a holistic approach emphasizing prevention, risk reduction and education to assist in making life-long healthy choices.
 - Physical exams (including sports, annual, and pre-employment exams)
 - Management of acute illnesses and injuries
 - Women's health care
 - Lab services
 - Mental health referral and collaboration with the Rhode Island College Counseling Center
 - PPD skin testing for student teachers and nursing students
 - Referral and coordination with specialty medical resources
 - Smoking cessation services

- Counseling Center - helping students fully to develop their intellectual, emotional, and social potential and to alleviate the distress and conflicts which may interfere with that development.
 - Individual counseling and short-term psychotherapy for personal, career, and educational problems
 - Group workshops and programs
 - Vocational interest and personality testing
 - Substance abuse evaluation,
 - Crisis intervention
 - Self-help resources
 - Stress management laboratory
 - Referrals to appropriate services in the community

- Health Promotion - providing information on how to live a healthy lifestyle and encourage making positive behavior choices. Its mission is to be a resource for education and information that will help students to make life enhancing choices so that they will be successful throughout their college experience

- Intercollegiate Athletics - participating in NCAA Division III, known as Anchormen and Anchorwomen.
 - 350 student athletes who play in 21 varsity sports
 - Outdoor facilities: baseball complex, softball field, tennis courts, outdoor track, and soccer field
 - Murray Center: 32,000 square-foot competitive wooden floor for varsity programs in basketball, volleyball, gymnastics and wrestling, as well as a fully equipped varsity weight room, athletic medicine area, athletic training area, locker rooms and classrooms.
 - Support services for student athletes include Champs Life Skills Program, the Faculty-Staff All-American Mentoring Team and the Student-Athlete Success Center
 - American Mentoring Team and the Student-Athlete Success Center

- Intramural Sports - comprising an integral part of student life, intramural sports give all students the opportunity to participate in a wide variety of programs and activities. Offerings range from regular league competition (e.g., Flag Football League, Co-Ed Softball League, Co-Ed Volleyball League) to more informal tournament activities and one-day events.

- Recreation/Recreation Center - featuring a \$12 million renovation project that was completed in August, 2012, the Recreation Center provides a state of the art facility for the RIC community. Emphasis is on open recreation, personal fitness, health, and wellness, regardless of age, gender, race, or skill level.
 - Indoor field house
 - Swimming pool
 - Cardiovascular and weight room
 - Dance studio

- College Dining Services (Donovan Dining Center, The Café and The Galley) - offering a wide variety of foods for resident (required meal plan) and commuter students, faculty, staff and visitors. The Director of Foods Services, Arthur Patrie, maintains an open door policy to address student dietary needs, accept feedback and suggestions from students, faculty and staff.
 - Nutrition counseling - the services of a Licensed, Registered Dietitian are available to students wanting information on general nutrition, weight management, food allergies, or specific therapeutic diets. Coordination with Disability Services.
 - Special foods available on a daily basis, including many gluten-free foods, soy milk, lactose free milk, and foods cooked to order

- Signs posted at point-of-sale alerting students to foods containing the eight major food allergens (shellfish, fish, peanuts, tree nuts, soy, wheat, milk, eggs)
 - Calorie and nutrition information available on-line for most food items
 - Food Service Advisory Committee representing each aspect of the college community meets on a monthly basis in the Dining Center. The mission of the Committee is to bring forward the suggestions, concerns, and ideas of the wider college community to the management and staff of College Dining Services. Each participant has the opportunity to participate in discussions regarding problem resolution (food-related), menu planning, festive meals, cost analysis of meals, sanitation and recycling issues, etc.
 - Maintains a daily vegan menu
- Residential Life and Housing - offering a living community that strives to meet students' social needs as well as their academic ones. It supports a community based on individual responsibility, where there is an appreciation of individual differences and a respect for individual rights. It provided opportunities for student interaction, development, and leadership
 - Student Union - is the hub of the college for all the members of the community – students, faculty, staff, administration, alumni, and guests. As the gathering place for the college community, the Student Union provides activities, services, and a value-added component of extended advisement and support outside the classroom.
 - Student Organizations - including many student groups focusing on a healthy lifestyle through physical activities, social events and mental health supports. Many activities take place during the free period, Wednesdays from 12:30-2 p.m., when and no classes are in session. Among these are:
 - Active Minds
 - Advocacy and Beyond Club
 - Ballroom Dance Club
 - Environmental Club
 - HOPE (Helping Others Promote Equality)
 - Ski & Snowboard Club
 - Student Nurses Association
 - Ultimate Frisbee Organization
 - Health education - is also a function of what students are learning in their classrooms, laboratories and community internships/placements. Rhode Island College's five schools each offer majors, minors and course content that emphasize health and wellness. These academic programs contribute to the collective health knowledge and skills of the student body.
- The School of Nursing (SoN) has undergraduate, graduate and specialized certificate programs in nursing. The American Nurses Association defines nursing as the "protection, promotion, and optimization of health and abilities, prevention of illness and injury,

alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations". With this charge and an enrollment of over 400 students, the SoN has a sizeable impact on building a healthy Rhode Island College community. This was most evident in 2010 when the SoN became the first public nursing school in the state to ban tobacco use, a policy developed and supported by nursing students themselves. This policy prohibits smoking or use of tobacco products by students while in uniform or when representing the SoN.

- The Department of Health and Physical Community and Education within the Feinstein School of Education and Human Development (FSEHD) offers nationally accredited degree programs in Health Education and Physical Education that prepare individuals to enter organizations and institutions which offer educational programs in health or physical education and wellness. For example, the B.S. in Community Health and Wellness has five concentration options: Public Health Education, Health and Aging, Recreation and Leisure Studies, Wellness and Movement Studies and Women's Health.
- The School of Social Work (SSW) prepares practitioners in its bachelor, graduate and certificate programs to work with oppressed groups, to alleviate injustice, discrimination and poverty, create social policies and resources that meet basic human needs and enhance the quality of life, and create accessible, responsible, accountable human service programs. Since health disparity is a core topic of study, social work students understand the factors affecting good health.
- The numerous majors offered by the Faculty of Arts and Sciences (FAS) are diverse, but many are health-related. For example, the B.S. in Chemical Dependency/Addiction Studies explores physical, mental and health as it relates to addiction. The B.A. in Dance Performance requires students to be in exceptional physical health. Students in B.A. in Gender and Women's Studies major gain an understanding of and respect for difference in their lives as they encounter issues of gender, age, ability, class, ethnicity, race, religion, sexual orientation, and national origin in the classroom and in their curriculum.
- The School of Management (SoM) offers a B.S. and a minor in Health Care Administration. The program is specifically targeted for those pursuing management positions and/or preparation for graduate education. It represents a unique collaboration between the SoM and the SoN with significant contributions from the FAS and the FSEHD. Students must take several health care and health policy courses through the SoN. For their restricted electives, students are offered choices within gerontology, human resource management, informatics, management foundations, and wellness.

Another program which reaches across areas is the B.S. in Health Sciences. This multidisciplinary degree program involves the FAS, the FSEHD, the SoM and the SoN. All concentrations include a common core of cognate courses in biology, chemistry, health education, math, philosophy, psychology and sociology. The newest concentration within this degree is food safety - the first of its kind in the state. Course content for the food safety

concentration incorporates knowledge of food safety with an understanding of food chemistry and microbiology and a fundamental understanding of food processing and production management.

The Office of Human Resources at Rhode Island College is proactive about health and wellness and often publicizes its participation in two state programs to faculty and staff. The first is Rhode Island’s Rewards for Wellness Program. This is incentive program designed to help individuals adopt and maintain healthy behaviors as a way of life. It aims to increase one’s awareness of his/her own health status and provides the education and resources to help with staying healthy, getting healthy, or living better with an existing illness. Eligible employees can earn up to \$500 in credits towards the cost of their health insurance co-share. The second is a confidential Employee Assistance Program. Counseling and other psychological services are available to treat problems such as stress, personal concerns, couple relationship issue, legal or financial matters substance abuse, parent/child issues.

Pillar III: Provide effective environmental and sustainability education incorporating STEAM, civic skills and green career pathways:

Element 3 A:

Rhode Island College Undergraduate and Graduate degree offerings in Green High Demand High Wage Fields*

Rhode Island College degree programs		High Wage High Demand Green Positions		
CIP	CIP 4D Title	Soc Code	Occupational Title	Annual Openings
0901	Communication and Media Studies.	27-3031	Public Relations Specialists	23
1101	Computer and Information Sciences, General.	15-1133	Software Developers, Systems Software	78.8
1107	Computer Science.	15-1133	Software Developers, Systems Software	78.8
1506	Industrial Production Technologies/Technicians.	17-3023	Electrical and Electronics Engineering Technicians	25.2
5203	Accounting and Related Services.	13-2051	Financial Analysts	51.1
5208	Finance and Financial Management Services.	13-2051	Financial Analysts	51.1

5208	Finance and Financial Management Services.	13-2052	Personal Financial Advisors	54.5
5208	Finance and Financial Management Services.	41-3031	Securities, Commodities, and Financial Services Sales Agents	46
5214	Marketing.	11-2021	Marketing Managers	25.6

Data notations:

120 High Demand-High Wage (HDHW) occupations identified by the RI Office of Postsecondary Commissioners

CIP - SOC correlation performed by RI DLT Labor Market Information Division

Green jobs: National Center for O*NET Development. All Green Economy Sectors. O*NET OnLine. Retrieved December 21, 2016, from <https://www.onetonline.org/find/green?n=0=1>

Green jobs definition (BLS):

Jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources. And/or Jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources.

(<https://www.bls.gov/green/#definition>)

First Year Seminar Courses: All freshman are required to take a First Year Seminar class within their first two semesters. These courses are housed in many different departments such as anthropology, biology, and chemistry all of the courses delve into a sustainability related theme. For example the anthropology course examines issues related to trash; biology examines issues related to air and water quality; and chemistry will examine issues related to food production and safety. Each class is divided into groups where a paper and presentation are produced in a team effort. These classes are designed to teach students how to work together solving current issues related to climate change.

B.A. Environmental Studies: In fall 2015-1016 Rhode Island College launched a new B.A. in Environmental Studies to prepare students to meet some of the greatest challenges facing humanity in the coming decades. This program draws upon coursework in many different fields and is providing students a strong multi-disciplinary, liberal arts foundation with options for specializations and a required experiential capstone or internship. The program is preparing students for careers in a variety of pursuits, such as urban agriculture, natural resources, sustainability, environmental education, and environmental communications as well as for graduate study in fields including public policy and international studies. Careers requiring degrees in the environmental field are among the fastest growing, according to the U.S. Bureau of Labor Statistics. Jobs related to environmental studies are predicted to grow 15 percent in the next 10 years. There are 50 students who have declared Environmental Studies as their major as of this applications submittal.

The Rhode Island College Environmental Studies Program takes an interdisciplinary approach, focusing on how humans interact with their environment and the essential and reciprocal relationship between humans and the natural world while exploring how to move towards a more sustainable future for human and natural systems. Drawing on courses offered in the Biology, Mathematics and the Physical Sciences students learn scientific principles that enable us to make accurate observations, document changes in climate, and to understand the dynamics of Earth system processes. In courses drawn from the Humanities, Social Sciences and Arts students learn about human behavior, cultural variation, and the function of our social, political, and economic institutions as they relate to the natural world.

The Environmental Studies Program was developed to prepare students for careers in a variety of pursuits as well as for graduate study in a variety of fields including public policy, communications and marketing and international studies. Students will be well prepared for careers in:

- Non-profit agencies
- Sustainability
- Natural Resource Management
- Environmental education/interpretation
- Environmental analyst/consultant
- International environmental relations
- Environmental/Social Policy and associated research
- Parks and Outdoor Recreation (ecotourism, environmental enforcement)
- Environmental journalism
- Agriculture and Urban Agriculture

USGBC LEED Lab: In 2016 Rhode Island College in partnership with the U.S. Green Building Council developed a 350 level topics course to be offered in the fall 2017 semester entitled LEED Lab. The course is a multidisciplinary immersion course that utilizes the built environment to educate and prepare students to become green building leaders and sustainability focused citizens. In the course, students assess the performance of existing facilities on campus and choose buildings to facilitate the LEED for Building Operations and Maintenance (LEED O+M) process with the goal of certifying the facility. At the close of the semester, the students are prepared to sit for the LEED AP O+M professional credential exam. This course will be cross-listed in the Environmental Studies Program and the School of Management at Rhode Island College.

USGBC Learning Lab: Rhode Island College is exploring the possibility of introducing the USGBC Learning Lab to the Feinstein School of Education. The Learning Lab is an online platform for K-12 teachers to find a robust selection of sustainability curricula. Learning Lab provides teachers and school leaders with comprehensive, project and STEAM-based curriculum, encouraging student leadership, sustainability literacy and real-world action. By making this tool available to teacher candidates in the Feinstein School of Education, Rhode

Island College will better prepare future educators to access curricula that equips students with the knowledge and skills needed to nurture a more sustainable future.

Element 3B:

- Over the past decade STEAM education at Rhode Island College has gained increased momentum. Responding to labor market indicators that employment will grow in STEAM careers, the college has invested in new academic offerings, research investigations, capital improvement projects and business/ community partnerships that support STEAM education. As a result, greater numbers of RIC students are enrolled in STEAM courses.
- Beyond, establishing several new degree programs, RIC's achievements in STEAM include:
 - Rhode Island STEAM Center at Rhode Island College (STEAM Center): This entity offers programming and physical space dedicated to improving STEAM education across the state through creative initiatives in pre-service and in-service professional development, K-12 student programs, cutting edge technologies and collaborations among educational institutions, government entities, community organizations and the business sector. The STEAM Center's Annual Spring Conference brings all stakeholders together to focus on a topic of interest.
 - RI EPSCoR: This funding to local colleges and universities through a National Science Foundation (NSF) statewide grant award and supported by the RI Science & Technology Advisory Council (STAC) encourages new and innovate science projects and research programs. RIC hosts an internal competition for faculty summer fellowships with its share of EPSCoR funds.
 - Example: Dr. Breea Govenar of the Biology Department samples salt marshes to examine the variation in the species composition as a baseline for beginning a deeper investigation of the effects of climate change on the ecology and trophic relationships of the benthic macro fauna, including different species of snails, ribbed mussels, and fiddler crab.
 - RI-INBRE: This National Institutes of Health (NIH)-funded grant, similar to EPSCoR, has the goal of stimulating innovative biomedical and behavioral scientific research in the state of Rhode Island. Rhode Island College science faculty members apply externally for these funds.
 - Summer Undergraduate Research Fellows (SURF): This is a highly competitive program designed to increase research opportunities for undergraduates. Approximately 30 Rhode Island College students participate Students spend 10 weeks conducting research in laboratories and in the field on topics including Alzheimer's treatment and climate change, while mentored by laboratory faculty.

- S-STEAM: This is a small, but sustainable interdisciplinary community of student scientists. The students who are majoring in biology, chemistry, computer science, mathematics, and/or physics annually form part of a Science, Computing and Mathematics Learning Community. This group takes courses together for their first two years. S-STEAM students are being introduced to research in their freshman year and join a research team as sophomores. As juniors and seniors, participants continue with courses in their respective majors, mentor younger students and help recruit new students, while becoming more deeply involved in their own research. Supplementary activities include organized social activities each semester, STEAM internships, and student travel to conferences
- Renovations of Teaching and Learning Laboratories: These capital projects received several recent grants from the Champlin Foundations totaling over \$1.2 million. These awards helped support the renovations of the Microbiology, Ecology and Human Anatomy Laboratories in the Fogarty Life Science Building and the Physical Science, Organic Chemistry and Biochemistry Laboratories and the Amos Auditorium in the Clarke Science Building.
- Leslie Cameron Greenhouse: This renovation of the RIC greenhouse which is attached to the Clarke Science Building received funding through a bequest from the estate of Leslie Cameron'70. Students and faculty conduct research in ecology and other fields in the greenhouse. The greenhouse is home to a variety of plant life being used for research projects conducted by the Biology Department. The greenhouse is also utilized by K-12 students visiting the Bee Education Center.

Element 3C:

Urban Agriculture: For the past 5 years Rhode Island College has worked closely with the Rhode Island Beekeepers Association in developing the Rhode Island College Bee Education Center, consisting of a 3 hive apiary, a pollinator garden, an outdoor classroom and a WPRI 12 TV weather station. Rhode Island College has hosted RIBA's Beginner Beekeeping Classes for the last 4 years and has averaged 150 students in 2 sections annually. Rhode Island College also hosts the RIBA Intermediate Lab at the Bee Education Center providing students a hands-on experience in hive management using live bees. In 2016 over 600 K-12 students from all over the state came to the Bee Education Center on field trips to learn about the importance of honeybees to agriculture. Rhode Island College and the RI Beekeepers Association have also been in discussion about creating a Master Beekeeping Course that would cover all aspects of commercial beekeeping. All of the courses offered by RI Beekeepers Association are open to the general public as well as Rhode Island College students, faculty and staff.

Campus Garden: In 2016, Casey Doyle an Environmental Studies major started her senior capstone project which was a design build campus garden. The capstone garden has been designed as a French heirloom potager garden behind the Fogarty Life Sciences building at Rhode Island College. The garden is approximately 6500 square feet. Starting from the

center of the garden is the Native American 4 Sisters garden bed consisting of corn, peas, squash and a pollinator flower either Beebalm or Sunflower.

There are streets that shoot off from the center circle with walkways on either side of the beds for ease of access. The walkways will be lined with pea sized gravel and stepping stones. The raised beds will be wattled beds, antique brick and recycled wood. There is a blueberry bush bed in the back, raspberry bush bed on the side and a geodesic dome greenhouse in the back corner. The garden is using organic compost and soil as well as heirloom plants.

The garden has been designed to tell the story of heirloom vegetables, flowers and trees. To inform its visitors that the world of food needs diversity for survival, ancient gardening techniques still survive today and to bring our school community together in unity to care for something that is ours.

The produce and flowers from the garden will be used in Donovan Dining Services. The garden has also been incorporated to the field trips offered by the Bee Education Center.

Rhode Island Environmental Educators Association (RIEEA): RIEEA is a collaborative network of individuals and organizations committed to environmental education. Rhode Island College's Sustainability Coordinator, James C. Murphy, is a RIEEA board member and current Vice President. There are almost 50 RIEEA organizational members that include Rhode Island College, University of RI, Save the Bay, The Audubon Society, and Roger Williams Park Zoo. RIEEA has created a RI Environmental Literacy Plan found here:

http://rieea.org/wp-content/uploads/2013/01/EE_Plan_LowRes1.pdf.

With the resources and funding that have become available, RIEEA and the RI Department of Education (RIDE) are currently engaged in the following phases of the ELP:

- Managing a searchable [resource database](#) of environmental education opportunities;
- Promoting the [Green Ribbon Schools initiative](#) and guiding applicants through the process;
- Offering [professional development opportunities](#) for formal and informal educators;
- Developing guidelines for the *School as a Tool* portion of the Collaborative for High Performance Schools (CHPS) program so that schools receiving [state funds for new buildings or refurbishment projects](#) will have to incorporate high quality environmental education into their curriculum;
- Assessing how to most easily and effectively [evaluate environmental literacy](#).

Providence Sustainability Roundtable: The Providence Sustainability Roundtable is comprised of all of the city's colleges and universities as well as a number of Providence businesses. The group's objective is to bring business and higher education together to share best practices in sustainability, overcome obstacles to sustainability in the city, and participate in ways to lower the city's collective carbon footprint. Active Providence business participants include Textron, G-Tech, Blue Cross Blue Shield and Lifespan to name a few. Also very actively engaged is The City of Providence's Office of Sustainability. This group meets 6 times annually, each time at a different participating college or university.

RI Department of Environmental Management and RI Tree Council: The RIC Environmental Club, RI DEM and the RI Tree Council have collaborated on hosting workshops for landscaping companies covering a wide range of subject matter. Topics have included evasive pest management, efficient and effective pesticide use, and tree trimming near power lines. The RI Tree Council also provides volunteers to the RIC Campus Garden to help support RIC's efforts in promoting urban agriculture.

Rhode Island College has a full time Sustainability Coordinator, James C. Murphy, whose office is part of the Facilities & Operations Department and the Office of Professional Studies and Continuing Education. He serves as the advisor for the Rhode Island College Environmental Club, the campus garden and is on the board of the Rhode Island Environmental Educators Association and the Rhode Island Chapter of the U.S. Green Building Council. Murphy is also a member of the Rhode Island Beekeepers Association and is the resident beekeeper in the Rhode Island College Bee Education Center which houses three beehives, a pollinator garden, WPRI 12 weather station and an outdoor classroom. The Bee Education Center drew over 600 children last year where they learned about honeybees and their relationship to agriculture. He is also the liaison to the Apeiron Institute of Sustainable Living and hosts their Sustainable School Summit on the Rhode Island College campus. The summit draws over 200 teachers, students, administrators and facility personnel for a day long set of workshops and speakers focusing on the sustainability best practices for the states K-12 schools.

RIC Bee Education Center



Campus Garden Site Plan by Senior Casey Doyle



Senior Casey Doyle (left) and members of the Environmental Club plant blueberry and raspberry bushes in the new campus garden. (October 15th 2016)