

#### THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

### CURRICULUM IN ENVIRONMENT AND ECOLOGY

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7 November 2016

Abigail Panter, Senior Associate Dean Undergraduate Education UNC College of Arts & Sciences Campus Box 3504 3018 Steele Building Chapel Hill, NC 27599-3100

Dear Dean Panter:

The Curriculum in Environment and Ecology (ENEC) is pleased to support this proposal for a dual degree BA or BS - MPA with the School of Government (SOG). The proposed dual degree would facilitate the progression of our BA or BS students in the environmental program into a Masters in Public Administration. We have negotiated a path with SOG faculty that will allow flexibility for our students as undergraduates while also fulfilling their prerequisites for entering graduate school in SOG. ENEC students pursuing a BA or BS degree would have the option to work closely with advisors in SOG and ENEC to take the necessary courses through an informal selection of critical courses. ENEC students would be asked to apply conditionally for this program before their junior year so that time remains to take the courses needed for entry to graduate school in SOGs. This step would place them with a program advisor in SOG so that course schedules could be guided.

The benefits of this proposed dual degree program are threefold: (1) environmental fields are inherently interdisciplinary and we see this program as an important mechanism to enhance our undergraduate experience; (2) the emphasis on environmental finance and leadership training is increasing at UNC as evidenced by student interest in combining their environmental background with business, economics, and public policy has grown; (3) student demand is increasing for courses and programs that enhance their job marketability while still providing a quality liberal arts education. It is critical that we train environmental students knowledgeable about importance of climate change, sea level rise, droughts, fracking, food scarcity, genetically modified food, and other critical issues facing the US and world. We also need these well-trained scientists to be conversant in how you translate that information to practical solutions in the policy and finance realms.

We currently have dual degrees between our undergraduate program (ENEC) and two other professional schools (SILS, MEJO). Both of these dual degrees have been successful at recruiting top flight first year students to Carolina, to broadening the scope of student engagement in the professional schools, and increased awareness among students about the need for post-graduate degrees. To be quite honest, we are following the students in the development of the dual degrees. It is not the other way around. Our students have shown us what they are interested in doing and how they wish to use their degrees and we are attempting to open the doors through clear pathways. Over 30 students a year are advised in the ENEC-MEJO program and the recent (fall 2016) start to the ENEC-SILS program has seen about 10 students seek advising.

This proposed dual degree offers our BA or BS-seeking environmental students the opportunity to begin their studies in the professional setting of the School of Government while still undergraduates.

Sincerely,

Jer Cal

Jaye E. Cable Chair, Curriculum in Environment and Ecology University of North Carolina-Chapel Hill



THE UNIVERSITY of North Carolina at Chapel Hill

OFFICE OF THE DEAN

205 SOUTH BUILDING CAMPUS BOX 3100 CHAPEL HILL, NC 27599-3100 T 919.962.1165 F 919.962.2408 college.unc.edu

November 3, 2016

Abigail Panter, Senior Associate Dean Undergraduate Education UNC College of Arts and Sciences Campus Box 3504 3018 Steele Building Chapel Hill, NC 27599

Dear Dean Panter,

I am writing to you to endorse the proposal for the dual degree BA-BS/MPA program with the School of Government. The program, which represents a partnership between the School of Government and the College's Curriculum in Environment and Ecology (CEE), with support from Honors Carolina, will allow BA students in Environmental Studies and BS students in Environmental Science to progress directly into a Master of Public Administration.

As Senior Associate Dean for the Natural Sciences I am pleased to support this program, which would be an excellent parallel program for the BA and BS students in CEE. Similar to the current CEE/JOMC collaboration with their BS/MSIS dual degree program, this BA-BS/MPA involves degrees from two distinct disciplines. The inherent interdisciplinary nature of environmental fields makes this program beneficial to our undergraduate students, allowing them to gain a thorough knowledge of environmental issues and apply their natural and physical science understanding in real world decision-making and leadership scenarios. At the same time, the program not only responds to student demand but also makes our graduates more marketable by integrating their environmental and public administration backgrounds to meet the growing demand in the environmental management area of the public sector.

Please do not hesitate to contact me should you have any questions or require further information.

Sincerely,

J. Christopher Clemens Senior Associate Dean for Natural Sciences Jaroslav Folda Distinguished Professor of Physics and Astronomy

cc: College of Arts and Sciences Administrative Board



THE UNIVERSITY of North Carolina at Chapel Hill

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TO:	Academic Policy Committee of The Graduate School			
FROM:	Mike Smith, Dean of the School of Government			
DATE:	October 31, 2016			
RE:	Proposed Dual-Degree Program			

I am writing in support of the proposed dual-degree program between the Curriculum for Environment and Ecology and the School of Government, providing students with a more direct path to graduate from UNC with either a Bachelor of Arts in Environmental Studies or a Bachelor of Science in Environmental Science and a Master of Public Administration (MPA).

I support the proposed dual-degree program for two reasons. First, this program has the potential to increase our ability to recruit more UNC undergraduates into the MPA program, allowing students to take MPA electives during their final year of undergraduate study and allowing them to transfer up to 13.5 hours into our graduate program. We are constantly looking for strategies to increase our ability to recruit more UNC undergraduates into our MPA program given the population of undergraduate students who understand public service and who are academically qualified.

Second, this program has the potential to impact the MPA program's mission of preparing public service leaders, where our alumni actually become leaders and key decision-makers within their respective organizations and communities. This program will help us graduate more students who can embrace leadership opportunities that require environmental and administrative backgrounds to confront the growing complexities of environmental issues within all levels of government and nonprofit organizations.

Finally, I would like to note that our ability to recruit and graduate high-quality students in this proposed dual-degree program is in alignment with the mission of our Environmental Finance Center and the mission of the School of Government.

## The Dual Degree: Bachelor Degree in Environmental Studies or Environmental Science and Master of Public Administration

This proposed dual-degree program is between the Curriculum in Environment and Ecology (CEE) and the School of Government, with support from Honors Carolina. Unlike dual bachelor/master degree programs where both degrees are conferred from the same academic unit, this proposed dual-degree program would involve degrees from two distinct disciplines. They are a Bachelor of Arts (BA) in Environmental Studies or a Bachelor of Science (BS) in Environmental Science from the Curriculum in Environmental and Ecology and a Master of Public Administration (MPA) from the School of Government. While this joint venture is specifically designed to recruit more students into the on-campus format of the MPA program, the dual-degree program is available to students who plan on pursing the MPA degree through the on-campus or online format.

This proposed dual-degree program will be marketed as a unique differentiator to attract exceptional applicants to Carolina. Additionally, this program also is designed to retain high-achieving Carolina undergraduate students and entice them to pursue a graduate degree at Carolina. The dual-degree between Environmental Studies or Environmental Science and Public Administration offers students the opportunity to gain thorough knowledge of environmental issues as well as the necessary leadership skills to become leaders in environmentally focused public organizations. The program is designed to prepare students for careers in a variety of institutions, including governmental agencies; nonprofit and advocacy groups; and research organizations.

The program will provide an opportunity for expanded research and professional work experience while at Carolina. Students will be able to design their schedules in a manner which will provide greater opportunity for taking specialized electives or carrying out supplemental research. Alternatively, the MPA will provide UNC graduates with a unique advantage when entering the job market or applying for doctoral programs in Environmental Studies or Science, Public Administration, or another field.

Faculty members in the Curriculum in Environment and Ecology and the School of Government have observed a growing need for students and practitioners with leadership potential who can guide environmental programs and services at every level of government and in organizations that support the public interest. For this reason, faculty members and staff have developed several innovative programs to meet this demand:

• As part of their studies, students are encouraged to examine global environmental issues through programs abroad. The UNC Study Abroad Office operates a network of field sites in places such as the Galapagos and Thailand as well as a number of North Carolina-based field sites, using UNC courses offered through the Curriculum in Environment and Ecology. Students participating in these field sites are required to complete a research project or internship; students planning to complete this dual-degree will be encouraged to gain experience with organizations that apply administrative skills in the environmental sector.

These internships could be with environmental nonprofits, advocacy groups, or foundations, among others.

- The Outer Banks Field Site (OBXFS) provides students with a strong grounding in applied policy and ecology and first-hand experience integrating diverse academic and community perspectives to issues of immediate relevance. OBXFS participants complete internships with local, state, and government agencies, including planning departments, US Fish and Wildlife Service, and the National Park Service, or with environmental non-profit organizations or researchers at the UNC Coastal Studies Institute. The capstone research provides an invaluable introduction to conducting policy-relevant research and reporting that information both verbally and in writing to a diverse audience of stakeholders and decision makers. The OBXFS program will serve students interested in pursuing an MPA, providing unique opportunities to work in public and NGO settings and to gain hands-on experience in approaching problems from multiple disciplinary lenses economics, law and policy, sociology, and ecology.
- A graduate-level Applied Environmental Finance course is currently offered at the School of Government, which has drawn students from Environmental Studies, Environmental Science, Political Science, and Urban Planning. In 2015, the MPA program opened the course to undergraduates. Students from the CEE program were among undergraduates enrolled in the course.
- The Environmental Finance Center recruits both undergraduate and graduate research assistants to contribute to project administration, research, technical assistance, and financial modeling for real-world environmental programs locally and nationally. Internships with the EFC give students an opportunity to use knowledge acquired in class to propose solutions to modern environmental problems, including natural resource depletion, environmental health services, clean water, climate change, and infrastructure needs.

In advising meetings associated with annual registration and career planning, Environment and Ecology faculty members have already identified several students who are interested in pursuing this proposed dual-degree program. These students are currently majoring in Environmental Studies or Environmental Science and are looking to the future and how they might use their science backgrounds to benefit the public sector. Some of these students have shown their own initiative by pursuing the Applied Environmental Finance course as well as research positions on campus.

If approved, both academic units plan on marketing this opportunity to students through a web page dedicated to the program. The program would be prominently featured on the Environmental Studies, Environmental Science, and MPA websites with a link to the dedicated dual-degree program website. Further, Honors Carolina intends to promote the dual-degree program to top-tier undergraduate applicants as a reason to select UNC-CH as their preferred choice.

# Procedure

Ensuring successful completion of this dual degree program will require a few minor deviations from the procedures for several existing UNC-CH dual degree programs. Because the degrees in this program will be conferred from two different entities, there is limited overlap of coursework between the two degrees. In accordance with university policy, the same coursework used to satisfy requirements for the BA in Environmental Studies or BS in Environmental Science cannot be used towards the graduate degree in public administration. We anticipate that the advantages of this proposed dual-degree will be enjoyed by students who have entered UNC with many AP credits and complete the BA or the BS degree requirements with time to spare for exploring additional electives. These students often have the flexibility to spend part of their senior year taking graduate level courses, not to exceed 30 percent of the master's degree credits that could be transferred into a graduate program or 13.5 credit hours for this proposed dual-degree program because the MPA program's curriculum is based on 45 credit hours. However, our proposed program transcends campus disciplinary silos and offers students an uncommon opportunity to take courses with long-term benefits in job training and professional development.

*Inquiry and advising:* Because strong advising will be central to successful completion of both programs, we will name specific dual-degree program advisors in the Curriculum in Environment and Ecology. Undergraduate students who are interested in the dual-degree program will speak to undergraduate faculty advisors no later than the beginning of their third year in order to plan their program of study and be sure that they will be able to meet the requirements of the MPA program. It is strongly recommended that students intending to complete this dual-degree program meet with their advisors once per semester until their admission to the graduate level. Program advisors have already been identified and are highly committed to supporting applicants throughout this process. Ideally we would identify and recruit students in the second semester of the sophomore year or first semester of the junior year.

*Application:* Applications to the MPA program will follow the normal processes already in place. Undergraduates apply to the on campus format of the MPA program, for example, during their senior year, concurrent with The Graduate School's application deadline for fall admission. Students who apply to the online format of the MPA program will have more flexibility given that students are accepted into the program four times per year. The Curriculum for Environment and Ecology will work in concert with the MPA program to develop a conditional pre-admission process that allows students to begin taking MPA courses in their 4th year. At present, the Graduate School does not have a mechanism for conditional admission in the Apply Yourself process. Therefore, students will apply for conditional pre-admission does not guarantee admission to Graduate School, but it does allow us to maintain an enrollment count for the program each year and manage the program size. The MPA program will not deviate from its annual admissions process for its on campus format or its online format.

Students will officially apply in the fall of their senior year, following the traditional application procedures of the UNC Graduate School to be considered for admission to the MPA program. The GRE is not required for conditional pre-admission but is required for official admission to the MPA program. At the formal graduate application stage, students must meet all admissions

requirements of the UNC Graduate School and the UNC School of Government MPA program.

# **Course requirements**

Graduates of the dual program must meet all course requirements of the BA or BS and MPA programs.

The diverse offerings of this dual-degree program include courses at the baccalaureate level and the post-baccalaureate level. Concentrations for environmental majors at the baccalaureate level are "Environmental Behavior and Decision-making," "Energy and Sustainability," "Population, Environment, and Development," "Water and Climate," and "Ecology and Society."

- Students in this dual-degree program will acquire theoretical grounding in science and public administration by completing the following requirements: 120 semester credit hours at the baccalaureate level, which will conform to the requirements for a BA or BS from the College of Arts and Sciences and 45 semester credit hours for the MPA degree.
- Typically students will begin taking courses at the MPA level in their fourth year in college. While they are still officially in the baccalaureate program, they may take up to four or five post-baccalaureate-level courses (13.5 maximum credit hours) that will subsequently be transferred to the MPA program, as long as they take enough courses in addition to these graduate level courses to meet the BA or BS graduation requirement. Hence, by the end of their fourth year, some students will have taken as many as 133.5 credit hours, 13.5 of which will be at the graduate level and do not count toward the BA or BS degree requirements. Appropriate MPA courses for early completion include, but are not limited to:
  - PUBA 722 Federal Policies and Institutions
  - PUBA 730 Governmental and Not-for-Profit Accounting and Reporting
  - PUBA 734 Community Revitalization Methods
  - PUBA 735 Community Revitalization Applied
  - PUBA 740 Decision Analysis
  - PUBA 751 City and County Management
  - PUBA 768 Mediation Skills for Public Organizations
  - PUBA 769 Facilitation Skills for Public Sector Managers
  - PUBA 778 Intergovernmental Relations
  - PUBA 787 Applied Environmental Finance

The following table provides a sample program for an undergraduate study to follow. The student would take one MPA elective (3 credit hours) during the fall semester of his or her senior year to help determine interest in the dual-degree program. The student would then apply to the MPA program, along with taking two MPA electives (6 credit hours) during the spring semester of his or her senior year. As shown in the table, the student would only have to take the MPA portfolio course (1.5 credit hours) during the spring semester of the second year. This would allow the student to purse a job in January rather than in April, where the student has the option of taking the MPA portfolio course on campus or online.

# Sample program\*

	Fall Semester	Credits	Spring Semester	Credits	Credits Completed
AP Credits	Math 231 English language History	9	(credits from AP contingent on appropriate AP score)		
Year 1	English 105 ENEC 201 Spanish 105 BIOL 101/101L LFIT	15	Econ 101 STOR 155 Spanish 203 US Div/Phil	12	123
Year 2	ENEC 202 Literary VPA Chem 101/101L	14	Chem 102/102L BIOL 201 World before 1750 Concentration Elective	16	
Summer	Study Abroad - eg Galapagos Summer Research				
Year 3	N Atlantic World Beyond N Atlantic ENEC 307 concentration Elective - skills course	15	ENEC 698 Concentration Concentration Elective Elective	15	
Year 4	Elective Elective PUBA elective Elective - skills course	12	Elective Concentration PUBA elective PUBA elective	12	
Year 5 MPA	PUBA 709 - Inst. & Values PUBA 719 - Anal & Eval I PUBA 721 - Prof Comm PUBA 760 - Law for Public Admin	12	PUBA 710 - Org. Theory PUBA 720 - Anal & Eval II PUBA 723 - HR Mgmt PUBA 31 - Public Fin Mgmt	12	45
Summer	required MPA profession				
Year 6	PUBA 745 - PWE (1.5) PUBA 711 - Leadership PUBA elective (6)	10.5	PUBA 746 - MPA portfolio	1.5	

\*Ideally students will take introductory courses like BIOL 201 by the end of their second year.

Semester by Semester MPA Outline UNC Institute for the Environment Field Sites

## **Additional MPA graduation requirements**

In addition to completing a minimum of 45 semester hours of credit, students are required to complete a paid, 12 week, full-time internship with a public organization. Finally, students will complete a portfolio during the final semester of study, including a comprehensive oral exam. (More information)

# Conclusion

The opportunity of this dual-degree program between the Curriculum in Environment and Ecology (CEE) and the School of Government comes at an important time in the life of the university. Students are increasingly seeking degrees that will supplement their skill sets. A program that allows students to integrate their environmental and public administration backgrounds will meet the growing demand in the environmental management area of the public sector.

The primary goal of this dual-degree program is to transform the next generation of young scientists so that they are able to apply their natural and physical science understanding to real world decision-making and leadership in the public sector. This proposed dual-degree aligns with the university's focus on equipping faculty to better translate and communicate their research and engaged scholarship to a variety of constituencies. The joint BA in Environmental Studies or BS in Environmental Science from the Curriculum in Environment and Ecology and the MPA from the School of Government broadens UNC's ability to recruit top undergraduate students to the University through innovative educational models.