
Memorandum: Proposed Initiatives for PhD Programming

From: The Nicholas PhD Advocacy Council (NPAC)

April 25th, 2016

To Dean Townsend, NSOE Division Chairs, and Staff:

The Nicholas PhD Advocacy Council (NPAC) has spent its inaugural year, 2015-16, working to improve the NSOE PhD experience in ways concordant with the school's vision of an interdisciplinary, collaborative, scholarly community. As part of this effort, NPAC is pleased to present three student-developed initiatives that aim to deepen the integration of NSOE programs, campuses, and disciplines. This memorandum presents descriptions of those initiatives, their estimated costs, and supporting data, and requests your consideration for their support.

In summary, our proposals are arranged around a theme of *integration*: campus integration, disciplinary integration, and program integration. We believe continued and increased integration on these levels is at the core of NSOE's PhD programming success.

To inform the design of these proposals, we consulted with our fellow PhD students - the constituents of NPAC. Detailed surveys were conducted in fall of 2015 and spring of 2016, first identifying broad priorities, and then specific programming opportunities.

NPAC recognizes that new plans face competition for limited resources, particularly in the current budget climate. For this reason, our proposals include measures which do not require funding (beyond time costs), and some measures which have relatively low costs. Our proposals would attempt to leverage existing resources to deliver high impact at low additional outlay. In addition to new initiatives, we would like to request continued funding for established programs that support the goals of NSOE PhD programming.

Elements of the proposed initiatives may be summarized as follows:

1. **Campus integration:** To increase connectivity between the Durham and Marine Lab campuses, NPAC proposes:
 - a. A webpage (net ID required) with information of travelling staff, students and faculty, to facilitate carpooling,
 - b. Increasing the telepresence of seminars/courses as resources allow, and;
 - c. Expanding the current UPE-Marine Lab symposium to include all NSOE PhD programs.
2. **Disciplinary integration:** To increase connectivity between PhD students in different disciplines (and often, in different programs), NPAC proposes:
 - 2.1. A series of small grants (initially totaling \$3000/academic year) allocated to projects that are (1) PhD student-led, (2) have a cross-disciplinary focus, (3) are not directly thesis-related, and (4) (preferably) include students from multiple NSOE PhD programs.

- 2.2. Continued funding for the Graduate Afternoon Seminar and related inter-disciplinary social events. This weekly seminar and happy hour provides a venue for NSOE PhD students to share their work with peers across disciplines, and the social hour following the seminar is one of the only weekly events to bring together students from across programs. Seminar organizers also plan a larger gathering once per semester that facilitates greater social integration of students at the Durham and Marine Lab campuses.
- 2.3. Continued funding for an NSOE PhD student orientation. After two years without an orientation, NPAC implemented an orientation for all new PhD students in fall of 2015. Participants reported that the program helped acquaint them both with NSOE procedures and with their peers within and across programs.
3. **Program integration:** To increase connections between MEM and PhD students, NPAC proposes a formal collaboration and mentoring program where PhD students collaborate with MEMs on group masters projects. We believe MEMs would gain access to technical skills and advisory resources (potentially reducing pressure on faculty), while PhDs would gain experience in mentorship and applying academic research skills to real-world problems.

NPAC appreciates having the opportunity to present these proposed initiatives. In the following pages we provide full details, with estimated costs and supporting data.

We look forward to collaborating with faculty, staff and students to develop and refine these proposals, and we hope to see them make a positive contribution to NSOE life.

Prepared by the 2015-16 NPAC Leadership:

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On behalf of the incoming 2016-17 NPAC leadership, and NSOE PhD students. For more information, please contact incoming NPAC Co-Chairs [Emily Pechar](#) and [Lydia Greene](#), and/or incoming NPAC Treasurers [Joanna Blaszcak](#) and [John Gardner](#).

NPAC 2016-2017 Budget Proposal

We estimate that the initiatives outlined in this document can be successfully undertaken for \$6050. Two initiatives, Duke Campus Connectivity, and the Nic-VIC Program, do not have direct costs, but would require modest investment of administrative staff time (supported by volunteer students). Two more initiatives, the Graduate Afternoon Seminar and the New Student Orientation, would require funding similar to that spent on these items in 2015-16. The Cross-Disciplinary Small Grants is the only item that represents a new funding item relative to 2015-16 expenditure.

	Funds Requested	More Information (page):
Initiative 1: Duke Campus Connectivity	\$0	4
Initiative 2.1: Graduate Afternoon Seminar	\$1,750	5
Initiative 2.2: New Student Orientation	\$1,300	6
Initiative 2.3: Cross-Disciplinary Small Grants*	\$3,000	7
Initiative 3: The Nic-VIC Program	\$0	8
Total Amount Requested:	\$6,050	

** Represents new funding request relative to 2015-16*

Initiative 1: Duke Campus Connectivity

Abstract: The overarching goal of this initiative is to increase connectivity of ideas, people, and education between the Durham and Marine Lab (ML) campuses. Based on student surveys and additional research, we have outlined three recommendations to this end. These recommendations are achievable in the short term with immediate and long-term benefits. They include providing logistical information for individuals traveling between campuses on Nicholas School websites, increasing telepresence of seminars/courses, and supporting an all Nicholas School graduate symposium.

Motivation: Survey data¹ indicates that 88% of respondents from both campuses indicated that increased connectivity is slightly to extremely important, whereas 100% of ML students believe increased connectivity is very to extremely important. ML respondents ranked the following as the 1st or 2nd most important initiatives to increase interaction: (1) increased telepresence of seminars/courses (88%), (2) assistance with organizing transportation/logistics between campuses (56%), and (3) organizing joint social/professional events (28%). Adding respondents from the Durham campus reordered the importance to 1) organizing joint social/professional events (62%), (2) increased telepresence of seminars/courses (56%), and (3) assistance with organizing transportation/logistics between campuses (52%). 58% of DML respondents travel to and from Durham at a frequency of once a month or more. Additional comments stressed a desire for more faculty interaction between campuses, organized car-pooling/couch surfing, and joint symposia.

Specific Proposals:

1. Nicholas School Symposium: Expanding the joint UPE-ML symposium to all NSOE graduate students and continuing to alternate locations between the ML and Durham campuses. This will require buy-in and funding from all NSOE PhD programs.
2. Online Information: Adding a page to the NSOE website titled “campus connections”, that provides information about where to park² on each campus, accommodation options, and ride sharing. On this website, students from both campuses would be able to opt in to a list serve/spreadsheet for sharing rides and accommodations when traveling to the other campus.
3. Telepresence for seminars/courses: All weekly NSOE seminars (EOS, TOX, UPE, ML, UPEP, EOS) should include an option for telepresence between campuses. When seminar organizers send out emails, a line could be included stating “If interested in attending this seminar remotely, please contact to organize telepresence”. This small change will help students on both campuses connect to visiting scholars and professors. Additionally, if telepresence is requested by two or more students for a given course, attempts should be made to meet this request by either campus.

Budget: Increased connectivity can be achieved without new direct costs, except for contributions from NSOE PhD programs for the expanded symposium. Some staff and student time (indirect costs) is likely required.

¹ NPAC PhD Student Survey, March, 2016, 97 responses.

² In addition to providing information, there is a desire among ML students for additional parking options in Durham. Although day-parking passes are currently available, they are not always sufficient in number.

Initiative 2.1: Graduate Afternoon Seminar (GAS)

Abstract: The Graduate Afternoon Seminar (GAS) is a unique PhD student-run event that actively seeks to bridge disciplines and programs, thereby furthering the School's mission of integrating the disciplinary diversity of students within the school. The weekly seminar, which has convened regularly for the past decade, consists of a 15-20 minute PhD student presentation and questions, followed by opportunity for social interaction on Friday afternoons.

Motivation: This seminar series provides PhD students from across NSOE with the opportunity to practice presenting their research, and to receive feedback from their peers. Currently, this seminar is the only formal weekly opportunity for PhD students from all disciplines within NSOE to interact in both a social and a collaborative intellectual atmosphere.

Budget: We request **\$1,750** to sustain the regular activities of GAS in the next academic year. This amounts to less than \$5 per PhD student per semester. These funds will cover costs associated with providing refreshments and a selection of snacks that draw students from all divisions of the School and accommodate those with different dietary needs.

We will use \$1500 of the budget for snacks and non-alcoholic refreshments at the seminar and associated events (see below). The remaining \$250 is a one-off contribution that will function as a revolving fund to purchase beer for the seminar; the full amount will be recouped each semester by students purchasing beer at each weekly meeting. We request this additional funding as a way to provide funds up front for the organizers to use. In previous years, organizers have used their own money to buy beer for the seminar series; however, going forward we would like to avoid this financial burden on the individuals who are already volunteering their time to organize the seminar series.

In addition to supporting weekly seminars, these funds would support two additional social events per semester: First, a pre-break pizza party/poster session, at which we will provide the opportunity for students to present their research in a different format from the normal weekly seminars. In the past, this event has drawn a larger attendance of PhD students than weekly seminars. Second, we propose to hold a mid-semester student-faculty mixer to provide graduate students opportunity to interact with Nicholas School faculty with whom they do not usually associate.

Benefits and Outcomes:

GAS is attended by approximately 12-20 PhD students each week. While GAS reaches students in all stages of the PhD program, it is attended most regularly by early career PhDs, and is important in giving new students a holistic and complete sense of the research and mission that make NSOE's academic programs exceptional.

Initiative 2.2: New Student Orientation

Abstract: A core goal of NPAC is integrating students across disciplines and creating a cohesive NSOE PhD community. To this end, last year we successfully organized an integrated PhD orientation that brought together new students from all divisions to welcome them into the NSOE community, provide them with important academic and administrative information before starting school (e.g. what to expect as a TA), build social and professional networks across the disciplines, and provide them with institutional knowledge about graduate student life. NPAC sees an integrated orientation program as a vital part of the PhD experience at Duke, and would like to make this a permanent component of our programming.

Motivation: We received overwhelmingly positive feedback from both incoming and current students, faculty, and administrators about the benefits of orientation last year. We strongly believe that holding an orientation for all new students not only improves students' readiness for graduate school, but also creates a more cohesive student body across the disciplines. This important service can be provided to students for a modest amount of funding that can make a big difference for incoming students.

Budget: We request funding of \$1300. The orientation will be composed of a full day of events during the week prior to the start of classes, which includes a happy hour where faculty, staff and current students can meet the new students, as well as the annual Forest Party, a cook out in the Duke Forest that is open to all Nicholas PhDs and faculty.

Itemized Budget - Total amount requested: \$1300

- Coffee/breakfast: \$50
- Lunch: \$7.99/person x 35= \$280 (includes new students and volunteers)
- Miscellaneous: \$20 (napkins, plates, cups, non-alcoholic beverages etc.)
- Happy hour snack food: \$150
- Happy hour drinks: \$300 (beer and wine for 60-65 people, approx. 125+ drinks)
- Forest Party: \$500

Benefits and Outcomes:

- Create a welcoming atmosphere for new students, and provide a space for them to build social and professional networks early in their time at NSOE;
- Streamline the information given to new students to ensure all incoming PhDs have access to the same resources and are prepared to successfully start graduate school;
- Provide an opportunity for informal mentorship among more senior graduate students and new students, and facilitate the sharing of institutional knowledge from current students about their experience;
- Assist incoming students with the less academic, but vitally important, aspects of orientation like student life, adjusting to life in Durham, and managing a work-life balance; and,
- Create an administrative structure for other campus programs to reach new students; for example, different student resources on campus like Library Services can use the orientation event to share information with incoming students.

Initiative 2.3: Cross-Disciplinary Small Grants

Abstract: We propose to establish a series of small, cross-disciplinary grants for NSOE PhD students designed to foster collaborative engagement on current environmental issues among students in different disciplines. Grants will be available to support both traditional research projects, as well as non-traditional outreach projects (e.g. educational outreach, performance art, photography or video projects etc.). Specifically, these grants would provide \$250, \$500, or \$1,000 to support a cross-disciplinary project conducted by two or more PhD students, at least one of whom must be enrolled in a NSOE PhD program. The proposed funds would be used within a one-year period to develop a novel project that is not directly part of the students' dissertation research (although they certainly can lead to new research avenues that will be incorporated into dissertation projects). These funds can function to cover the expenses of an entire project or can act as seed money for collecting pilot data in preparation for applying for larger grants.

Motivation: Despite the specific cross-disciplinary goals of the NSOE and Duke University more generally, there is currently little institutional infrastructure to financially support PhD student-to-student collaborative work. Whereas faculty-student collaborations are inherent to the PhD process, students gain considerably less experience working within peer-to-peer collaborations, a format that will be vital to their future careers. Enterprising NSOE PhD students have already demonstrated the enormous benefits that are gained from interdisciplinary, peer-to-peer collaborative efforts, including enhanced publications and the development of more meaningful networks in interdisciplinary subject areas. Similarly, there is significant enthusiasm for an opportunity such as this among students, especially those early in their PhD careers. In the spring 2016 NPAC survey of PhD students, three quarters of students reported being likely to apply for an interdisciplinary research grant, with over two thirds specifically interested in the outreach grant.

Budget:

- \$1,500/semester (Fall and Spring) = **\$3,000/year**
- This funding will be split among 2-6 small projects per semester, ranging from \$250-\$1000 per project
- Depending on the popularity of the grants, both the project grant cap (\$1,000) and/or the overall budget for the grants may be increased over time.

Outcomes: The outcomes for the Interdisciplinary PhD Grants can take many forms, but must include some type of 'product' that disseminates information, including publication in academic journals, book chapters, conference presentations, larger grant applications, performances, etc. Additionally, grantees will be expected to reflect on the cross-disciplinary experience and describe what they have learned by working in a peer-to-peer research or outreach process.

Initiative 3: Nicholas Vertical Integration and Collaboration (Nic-VIC) Program

Abstract: Nicholas Vertical Integration and Collaboration (Nic-VIC) is a proposed mentorship program connecting PhD students and MEM students through MEM Master's Projects (MPs). Through these new connections, we hope to leverage the unique interdisciplinary atmosphere in NSOE, using collaboration and mentorship to bridge gaps between basic and applied environmental research.

Motivation: Our motivation to initiate the Nic-VIC program comes directly from student goals. PhD students in the School are eager for opportunities to gain mentorship skills and to broaden the impacts of their research by applying it to real-world problems; a recent survey³ found that 72.3% of respondents were interested in participating in a formalized mentorship program with MEMs, with the top two desired outcomes of such a program being mentorship experience and research applications. The majority (68.5%) of students who expressed an interest in this opportunity would be willing to commit 2-4 hours per week toward this effort, showing willingness to invest time into collaboration throughout the academic year.

We envision Nic-VIC to be a mutually beneficial exchange. MEMs will gain access to additional technical and analytical experience, knowledge bases, and advisory resources, and have additional opportunities to publish their MP research. We believe this could provide a useful complement to faculty advisors' input. PhDs will gain experience in mentorship, and in making their basic research skills relevant to real-world problems and projects, including work with the NGO and corporate clients that MEMs frequently serve through their MPs. Both MEMs and PhD students will have increased opportunities to form new connections with community members and organizations within and outside of academia.

Budget: We do not request funding for the upcoming fiscal year. Some staff and student time (indirect costs) is likely required. In future years, Nic-VIC will provide formal mentoring workshops, which may require funding for supplies and speakers.

Expected outcomes: We expect that participation in the Nic-VIC program will lead to the following for PhD students:

- mentor support workshops
- formal recognition of mentorship experience
- expansion of knowledge base through participation in applied or management-based projects
- white paper or peer-reviewed publications

In addition to benefits for PhD students, MEMs have access to:

- additional analytical and research resources
- experience collaborating with students in different programs
- additional feedback on written documents
- publication opportunities

³ NPAC PhD Student Survey, March, 2016, 97 responses.

Appendix A: Initiative 2.3 Details

Requirements

1. The projects must be conducted by two or more PhD students, at least one of whom must be an NSOE-affiliated PhD student.
2. At least two of the students must work primarily in different disciplines, although it is not required that they are enrolled in different programs
 - a. i.e. Two members of the UPEP program can apply together, as long as one concentrates in economics and the other concentrates in political science
3. Each application must be co-written by all involved students, and must outline: (1) how the project represents cross-disciplinary research, (2) how the project is unique from each students' PhD research, (3) the expected outcomes of the project, and (4) the role for each student within the project.
4. The funds must be used within one year of receipt
5. All awardees must submit a finished "product" as the outcome of the award, including (but not limited to) publication in academic journals, book chapters, conference presentations, performances, etc. If the product is not complete by the end of the year, a short progress report should be submitted with expected completion date.
6. All awardees must also write a 2-part summary at the end of their award year. Part 1 will include information on the project, the process, and the outcomes, and can take the form of a 'traditional' progress report. Part 2 will involve completing a standardized survey with open-ended questions allowing students to describe their experiences working within the peer-to-peer collaborative process (as opposed to faculty-student process). The reports may be summarized and published on the NPAC and NSOE websites.
7. There will be a limit of one grant per project, but students may apply for the grant multiple times throughout their time at Duke to cover distinct projects.

Application Process & Timeline

- Funding begins fall 2016
- One NPAC member will be assigned to oversee the grant process for the year
- Grant availability will be advertised through *nic-phd* list serve at beginning of each (fall/spring) semester by NPAC representative
- Applications due within the first month of the fall and spring semesters
 - September 15th
 - January 31st
- NPAC representative forms a committee of three NPAC members to review applications with an overseeing faculty member to approve the committee's decisions
- Funds awarded to successful applicants within two weeks of application deadline
- Summary report completed by grantees within one year of award date