

# University of North Carolina at Chapel Hill

## Certificate Program Application Form

*Please use this application form as a guide for your Certificate Program proposal.*

**Name of Proposed Certificate Program:** Impact Evaluation (GCIE)

**Sponsoring Academic Unit:** Public Policy (CAS) and Maternal and Child Health (GSGPH)

**Administering Unit, if different:** Carolina Population Center

**Primary Contact Name:** Barbara Entwisle (Faculty); Ryan McCord (Project Manager)

**Address and CB #:** 8120

**Phone Number:** 919-962-6125 (Entwisle) **Email:** entwisle@unc.edu

**First Term the Certificate Would be Offered:** Spring 2019

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### **1. Describe the Certificate Program and provide a statement of educational objectives.**

The aim of the Graduate Certificate in Impact Evaluation (CGIE) is to provide Ph.D. level training in **quantitative impact evaluation** to graduate students across a range of social science and public health departments. Impact evaluation is a specific approach to monitoring and evaluating the performance of public policies, and programs and projects implemented by government, non-governmental organizations, and the private sector. The GCIE complements other UNC-CH graduate certificates in qualitative studies and participatory research methods. Learning objectives include:

- Learning how to design, implement and evaluate impact evaluation research by:
  - Understanding the fundamental principles of causal inference
  - Understanding the intuition underlying, and differences between, experimental, quasi-experimental and non-experimental study designs based on their potential to ensure highest internal and external validity
  - Articulate a theory of change that explains the causal pathways between implementation of interventions and observed outcomes
- Develop advanced skills in quantitative social science research methods necessary to carry out rigorous impact evaluation studies including:
  - Longitudinal data analysis (e.g., panel data analysis; time series analysis); linear regression is typically a pre-requisite for these courses
  - Application of geographic information systems (GIS) to impact evaluation research
- A practicum that allows students to gain hands on experience in the design and implementation of an impact evaluation study

***Completed and approved applications should be submitted to:***  
Stephanie Schmitt, Associate Dean for Academics, [sschmitt@email.unc.edu](mailto:sschmitt@email.unc.edu)

*Updated: July 20, 2010*

**2. Include a statement about the need for such a Certificate Program, and specifically why there is a need to offer this Certificate at UNC-Chapel Hill. Is the Certificate offered at other universities or community colleges?**

Impact evaluation is a critical skill for researchers working in a wide range of fields. It is an interdisciplinary field drawing heavily on research designs from the public health and medical fields, and from the domain of applied economics. The University of North Carolina at Chapel Hill has tremendous capacity in this area, both through faculty in the Department of Maternal and Child Health many of whom are engaged in Measure Evaluation, and in the Department of Public Policy, where several faculty conduct impact evaluation research in the areas of international development, education, social, and environmental policy. Impact evaluation is both a cutting-edge research approach and a highly marketable skill for graduate students. UNC-Chapel Hill is uniquely placed to provide a Graduate Certificate in Impact Evaluation due to the high level of capacity for training in this area. Our search for other graduate programs in the US that offer certificate programs in impact evaluation turned up a Masters level on-line program offered by American University. Several universities offer courses on the topic of monitoring and evaluation or program evaluation, and some offer certificates in these areas. Most are through professional schools with offerings at the Masters rather than Ph.D. level. We believe that the GCIE will be unique to UNC-CH and can be marketed to prospective Ph.D. students in several departments.

**3. Describe the demographics of the target student population for the Certificate Program. Double click each box that applies and describe the intended audience.**

- Undergraduate Students
- Graduate Students
- Professional Students: \_\_\_\_\_
- Degree-seeking, Matriculated Students
- Non-Degree-Seeking Students

The intended audience for the GCIE is Ph.D. students in the College of Arts and Sciences (primarily the quantitative social sciences including but not limited to City and Regional Planning, the Curriculum for Environment and Ecology, Economics, Geography, Public Policy, and Sociology), and the Gillings School of Global Public Health (primarily Maternal and Child Health, Epidemiology, Health Policy and Management, and Environmental Sciences and Engineering). Masters students (e.g., those in UNC-CH MPA, MSW, MPH, and MCRP) with the right quantitative background may also participate in the GCIE, subject to review by the Advisory Committee.

**4. Why is the Certificate Program necessary beyond offering the program as a minor, supporting area, or specialization/concentration/track?**

Impact evaluation is a skill that spans many disciplines. As such it is not suitable for situation in a single department. Further, because of anticipated strong interest from students in both CAS and GSGPH it is logically structured as a Certificate Program rather than a minor, supporting area, or specialization.

**5. Provide specific courses and other requirements for the Certificate Program. Separate listings of courses may be included with the proposal. At least 6 of 9 credits must be additive to the requirements of the student's home department.**

*1 course (3 credits) in longitudinal quantitative data analysis*  
PLCY 882 (Advanced Panel Data Methodology for Public Policy) OR  
SOC 718 (Longitudinal and multilevel data analysis) OR  
BIOS 667 (Applied Longitudinal Data Analysis) OR  
Or equivalent (at discretion of GEIC Director)\*

*2 courses from the list below (3 credits each for total of 6 credits) on Impact Evaluation*  
MHCH 862 (Maternal and Child Health Program Evaluation)  
PLCY/PLAN 801 (Design of Policy Oriented Research)  
GEOG 544 (GIS in Impact Evaluation)  
Or equivalent, e.g. SOC 707, BIOS 664, PLAN 800 (at discretion of GEIC Director)\*

#### *Practicum in Impact Evaluation*

On the approval of the GCIE Director, student will engage in some component of a quantitative impact evaluation study. Students must submit a 3-page proposal to the GEIC Director outlining the details of their impact evaluation practicum. A faculty mentor with substantive knowledge of quantitative impact evaluation must be identified and agree (in writing) to serve in this role.

The 3-page practicum proposal should include the following: a problem statement; a brief review of key literature; articulation of a research questions and testable hypotheses; gaps filled in the literature, substantively and methodologically; description of the impact evaluation study design; description of the study area and intervention to be studied; data to be collected; threats to both internal and external validity; a project timeline; and a description of how the work will be funded.

Following completion of the practicum, with the approval of the faculty mentor, the student should submit a 3-page final report to the GEIC Director describing the evaluation undertaken, findings, and lessons learned. Included in the final report should be a discussion of any departures from original plans, the reasons for these departures, and consequences for internal and external validity.

**6. Provide a statement on the relationship of the Certificate Program to degree programs within the unit(s). To what extent will requirements for the Certificate overlap with requirements for bachelor's, master's or doctoral degrees? Confirm how course credit transfer policies will be applied to students.**

We expect to draw PhD students from several departments in the College of Arts and Sciences and the Gillings School of Global Public Health. The number of additional courses the GEIC will require over and above typical department PhD requirements will depend on department. For example, PhD students in Public Policy and in Sociology will be required to take two additional courses (6 or more credit hours) and fulfil the requirements of the practicum whereas PhD students in Geography and in Maternal and Child Health will be required to take up to 3 additional courses and the practicum. Students will be aware that at most one course (3.5 credit hours) will be allowed to count toward both their certificate and degree credentials. If necessary, and with the agreement and supervision of the faculty mentor and the approval of the relevant graduate program, the student can incorporate the research practicum into a for-credit individual seminar.

**7. Will the Certificate Program be offered jointly with another university? If yes, describe the relationship with the joint unit.**

No, at this time the GCIE will only be offered at UNC-Chapel Hill.

**8. Will the Certificate Program be offered on campus, as a distance education program, or a combination? Describe any distance education components in detail.**

The GCIE will be offered on campus. There is no plan to include distance education.

**9. Describe the admissions criteria and process in detail. Differentiate between processes for degree-seeking students and non-degree-seeking students, where applicable. Include information about residency for tuition purposes as needed.**

There is currently no provision for non-degree seeking students to take the GCIE.

**10. Provide a three-year, semester-by-semester projection of enrollments and course offerings.**

Projected enrollment: Year 1 – 6 students; Year 2 – 6 students; Year 3 – 6 students

**Summary of GEIC Expected Enrollments by Course**

	Longitudinal Analysis		Impact Evaluation			
	PLCY 882	SOCI 718	PLCY/PLAN 801	MHCH 862	GEOG 544	
Spring 2019		3		4		
Fall 2019	3		4		4	
Spring 2020		3		4		
Fall 2020	3		4		4	
Spring 2021		3		4		
Fall 2020	3		4		4	
Spring 2021		3		4		

**11. Provide a three-year projection of the Certificate Program’s financial plan. Include the impact on campus resources, such as classrooms and instructional faculty/personnel. Also include plans for tuition and billing, if separate from standard rates across schools.**

We expect that the GCIE Program will be relatively small. The Certificate will be required of all PhD students in the NSF-funded EPPSA (Energy Poverty PIRE in Southern Africa) program. Three started in Fall 2018; three more will join in Fall 2019. The GCIE will be open to other PhD students as well, and it is difficult to anticipate how many this will be. For the sake of argument, we are proposing three more each year, for a total of six per year.

Students in the GCIE Program may fulfil the course requirements of the program in many ways. The enrollment chart above assumes that equal numbers choose each alternative. As shown, there is the possibility of three or four additional students in each of the identified courses. According to enrollment data for 2018, PLCY/PLAN 801, PLCY 882 and SOCI 718 were well

below their caps, with room for additional students. MHCH 862 was at its cap, but the instructor of this course intends to increase the cap by five to accommodate more students in the future (email from Gustavo Angeles dated August 27, 2018). Course requirements of the GCIE thus have little if any impact on campus resources.

The Practicum in Impact Evaluation requires a faculty mentor. For students in the EPPSA Program, we expect that the practicum will align with their dissertation research, and thus already part of the “advising package” they will receive. For others, we anticipate that the practicum will align with their work as research assistants on funded projects, again with minimal additional impact on faculty time. But for still others, the practicum may not align with dissertation or project work. Even in these instances, we expect that the practicum will benefit the faculty in some way (feeding into project reports and papers they are writing) and thus not too much of a burden (and if it is, they can say no).

**12. List all faculty members who will be responsible for planning and participating in the Certificate Program. Programs are encouraged to provide advising for students through the identification of one faculty member as the director of the Certificate.**

Administratively, the GCIE program will be based at the Carolina Population Center. Barbara Entwisle, Professor of Sociology and CPC Training Director, will serve as the Director of the GCIE and will provide advising services to students interested in pursuing the Graduate Certificate. As Director, Dr. Entwisle will also be responsible for approving GCIE practicum plans and reviewing final reports. The Departments of Public Policy and of Maternal and Child Health are the academic units that will sponsor the program. Ashu Handa and Gustavo Angeles, respectively, will assume primary responsibility for the GCIE within each of these departments. Michael Emch will represent the interests of Geography. Each department offering courses relevant to the Certificate Program will have representation on the GCIE Advisory Board.

**GCIE Advisory Board**

Sociology – Barbara Entwisle\*

Public Policy – Ashu Handa

Geography – Michael Emch

Maternal and Child Health – Gustavo Angeles

\*Director of Certificate Program

**13. Describe the evaluation plans for the Certificate Program.**

The Graduate Certificate in Impact Evaluation is being developed in part to support a commitment to train advanced graduate students in impact evaluation as part of an NSF Partners in International Research and Engagement (PIRE) grant, the Energy Poverty PIRE in Southern Africa (EPPSA). As part of that project we will conduct a formative assessment of impact in year 3 of the grant (2020). Participation in the GEIC will be an integral indicator in the formative assessment. Further, the team undertaking the formative assessment will interview students who have participated in GCIE to assess its “value-added” to the EPPSA program. With respect to the GCIE, including but not limited to EPPSA, upon completion of the Certificate, each student will respond to a brief survey asking them to identify two strengths and two weaknesses of the Certificate Program from their perspective. This information will be used by the GCIE Director to make improvements to the program. In the longer term, we will assess the relevance of the

GCIE to job placement by tracking PhD completion and subsequent career trajectories (in the short run) of those completing the Certificate.

**14. Appropriate letters of support should be included with the proposal. All units sponsoring and participating in a Certificate Program should approve the proposal and provide support letters, including letters from units supporting the Certificate through resources (e.g., faculty time, course slots). Approval letters from the home school should accompany the proposal submitted to the Graduate School for final approval.**

Letter from Public Policy  
Letter from Geography  
Letter from Sociology  
Letter from City and Regional Planning  
Letter from CAS

Letter from MCH  
Letter from GSGPH



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**DANIEL P. GITTERMAN, PH.D.**  
DUNCAN MACRAE '09 & REBECCA KYLE MACRAE  
PROFESSOR OF PUBLIC POLICY

danielg@email.unc.edu  
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THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
COLLEGE OF ARTS AND SCIENCES  
Public Policy  
Abernethy Hall | Room 202B | Campus Box 3435  
131 South Columbia Street | Chapel Hill, NC 27599-3435  
publicpolicy.unc.edu

September 18, 2018

Barbara Entwisle  
Director of the Graduate Certificate in Impact Evaluation  
Kenan Distinguished Professor in Sociology  
University of North Carolina Chapel Hill  
[entwisle@unc.edu](mailto:entwisle@unc.edu)

Dear Professor Entwisle:

The Department of Public Policy is pleased to offer its support for the proposed Graduate Certificate in Impact Evaluation. Impact evaluation is central to research conducted by department faculty in the areas of international development, education, social, and environmental policy. The certificate will formalize training in impact evaluation and signal a highly marketable skill for our graduate students.

Specifically, department support of the Graduate Certificate program will involve three components. First, two of our advanced graduate seminars meet course requirements of the program: PLCY/PLAN 801 (Design of Policy Research) and PLCY 882 (Advanced Panel Data Methodology for Public Policy). The Graduate Certificate program will add three or four additional students to these courses—at most, given that students interested in impact evaluation would enroll anyway. We can accommodate these students. Second, depending on interests and needs, our faculty may supervise the practicum in impact evaluation that is a required part of the program. We view this type of advising as part of the faculty role in our department. Third, there will be some additional administrative cost of providing an academic home for the Certificate Program, but we understand that you, as Director, will bear most of that burden (e.g., reviewing and approving proposed programs and practicums, tracking student progress, developing reports, etc.).

We see substantial value in the proposed Graduate Certificate in Impact Evaluation and stand ready to support your request for approval by the Deans' office.

Yours,

Daniel P. Gitterman, Ph.D.

Chair, Public Policy  
*Duncan MacRae '09 and Rebecca Kyle MacRae* Professor of Public Policy



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THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
COLLEGE OF ARTS AND SCIENCES  
Department of City and Regional Planning

☎ 919-962-4781 | 📠 919-962-5206

New East Building | Campus Box 3140  
223 East Cameron Avenue | Chapel Hill, NC 27599-3140  
[planning.unc.edu](http://planning.unc.edu)

September 19, 2018

Prof. Barbara Entwistle  
Department of Sociology  
UNC Chapel Hill  
Via email

Dear Barbara:

The Department of City and Regional Planning is pleased to offer support for the proposed Graduate Certificate in Impact Evaluation. Specifically, department support of the Graduate Certificate program will involve two components. First, one of our graduate seminars meets course requirements of the program: PLCY/PLAN 801 (Design of Policy Oriented Research). Second, depending on interests and needs, our faculty may supervise the practicum in impact evaluation that is a required part of the program. We view this type of advising as part of the faculty role in our department.

We see substantial value in the proposed Graduate Certificate in Impact Evaluation, which will formalize training in impact evaluation and signal a highly marketable skill for our graduate students. We support your request for approval by the Deans' office.

Sincerely,

A handwritten signature in black ink that reads "Noreen McDonald".

Noreen McDonald, PhD  
Chair, City and Regional Planning  
Thomas Willis Lambeth Distinguished Professor





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

Department of Geography  
205 Carolina Hall  
CAMPUS BOX 3220  
CHAPEL HILL, NC 27599-3220

September 25, 2018

Dear Professor Entwisle,

The Department of Geography is pleased to offer its support for the proposed Graduate Certificate in Impact Evaluation. Specifically, department support of the Graduate Certificate program will involve two components. First, one of our graduate seminars meets course requirements of the program: GEOG 554 (GIS in Impact Evaluation). This course was created specifically to serve the needs of the Certificate. Second, depending on interests and needs, our faculty may supervise the practicum in impact evaluation that is a required part of the program. We view this type of advising as part of the faculty role in our department.

We see substantial value in the proposed Graduate Certificate in Impact Evaluation, which will formalize training in impact evaluation and signal a highly marketable skill for our graduate students. We support your request for approval by the Deans' office.

Sincerely,

A handwritten signature in cursive script, appearing to read "E Olson".

Professor Elizabeth Olson  
Chair, Department of Geography  
UNC-Chapel Hill  
[eaolson@email.unc.edu](mailto:eaolson@email.unc.edu)  
cell: 919.200.5650



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Department of Sociology

☎ 919-962-1007 | ☎ 919-962-7568

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102 Emerson Drive | Chapel Hill, NC 27599-3210  
sociology.unc.edu

September 19, 2018

Dear Professor Entwisle:

The Department of Sociology is pleased to offer its support for the proposed Graduate Certificate in Impact Evaluation. Specifically, department support of the Graduate Certificate program will involve two components. First, one of our advanced graduate seminars meets course requirements of the program: SOCI 718 (Longitudinal and Multilevel Data Analysis). The Graduate Certificate program will add three or four additional students to this course—we can accommodate these students. Second, depending on interests and needs, our faculty may supervise the practicum in impact evaluation that is a required part of the program. We view this type of advising as part of the faculty role in our department.

We see substantial value in the proposed Graduate Certificate in Impact Evaluation, which will formalize training in impact evaluation and signal a highly marketable skill for our graduate students. We support your request for approval by the Deans' office.

Yours,

**Kenneth T. Andrews**

*Matthew Mason Distinguished Professor and Chair, Department of Sociology*