

# **PROPOSAL FOR AN INTERDISCIPLINARY PROGRAM IN DISASTER SCIENCE AND MANAGEMENT**

**January 25, 2009**

## **1 Mission Statement/ Description/ Executive Summary**

---

The proposed Disaster Science and Management (DISA) program is an interdisciplinary graduate course of study offering master's and doctoral degrees. The programs cover the theories, research methodologies, and policies informing efforts focused on emergency preparedness, mitigation, management, and response.

The objective of the proposed programs is to educate Disaster Science and Management professionals, researchers, and educators at the graduate level. The programs include a core curriculum, electives, research opportunities and internships.

The program builds on the unique strengths and international reputation of the Disaster Research Center (DRC) and other related programs and research at the University of Delaware. Ongoing research includes vulnerability and resiliency of social and physical systems, social and public policies for disaster reduction, and analysis and management of infrastructure systems.

The program will involve faculty from all colleges at the University of Delaware and foster sustained partnerships with federal, state, and regional agencies, such as the Federal Emergency Management Agency (FEMA) and Delaware Emergency Management Agency (DEMA) to support student research and internships.

## **2 Market Assessment**

---

### ***2.1 Context***

---

#### ***2.1.1 Compatibility with the University of Delaware Mission***

The program is consistent with the central mission of the University of Delaware to cultivate both learning and the free exchange of ideas. By providing a targeted academic program in an area of national importance, and a well-structured responsive program tied to opportunities for research funding, the program addresses three of the four academic priorities in the area of graduate education:

- successful students
- high-quality, affordable programs
- superior research and service

More relevant is the fact that the program is consistent with the University's strategic plan "Path to Prominence."

#### ***2.1.2 Description of the Planning Process***

This proposal was developed by the Committee for a Graduate Program in Disaster Science and Management, a group of thirteen faculty representing all colleges at the University of Delaware. The committee was chaired by Sue McNeil (Civil and

Environmental Engineering and Director of the Disaster Research Center) and the members are Burt Abrams (Economics), Benigno Aguirre (Sociology and DRC), James Corbett (Marine and Earth Studies), Tracy DeLiberty (Geography), Russell Dynes (DRC), Debra Hess Norris (Art Conservation), Joann Nigg (Sociology and DRC), Havidan Rodriguez (Provost's Office and DRC), Rick Sylves (Political Science), Jeff Raffel (CHEP), Eric Rise (Criminal Justice), Tom Sims (Agriculture and Natural Resources), and Jim Richards (Health Sciences). The committee met regularly between 2006 and 2008 to develop an outline for a new program. Meetings included an analysis of strengths, weaknesses, opportunities, and threats (SWOT) related to disaster studies and a careful review of relevant existing courses and alternate administrative structures. Committee members examined existing graduate programs in disaster studies nationally, met with potential employers and prospective students, and conducted a full-day work session to develop the draft program policy statement.

Draft copies of the proposal were circulated to interested faculty, administrators, and external experts, and two lunch-time meetings were held with faculty and administrators from potential cooperating departments and centers in April 2007. Comments and suggestions were gathered and incorporated into the final proposal. We also met with graduate students at the Disaster Research Center, the 2007 NSF REU students at the DRC, the Sociology and Criminal Justice faculty, and the School of Urban Affairs and Public Policy (SUAPP) faculty. In addition, we presented a poster at the Annual Natural Hazards Workshop in Boulder, Colorado. During the fall 2008 semester discussions were also held with the College of Human Services, Education and Policy ad hoc Methods Committee and the proposal revised to include existing rather than new methods classes.

The MS and PhD programs in Biomechanics and Movement Science served as an interdepartmental prototype. This program places emphasis on the plan of study and selecting an advisor at the application stage. We have also placed emphasis on the plan of study and the need for the student to have an advisor to be admitted to the program.

### ***2.1.3 Impact on Other University Programs***

Impact on other university programs will be minimal. There are three programs with graduate students currently working in areas related to disasters: 1) Sociology and Criminal Justice, 2) Environmental and Energy Policy, and 3) Civil and Environmental Engineering.

Other programs that could be perceived as impacted by the proposed program are Marine Policy, Business Administration, Political Science, and Urban Affairs and Public Policy. Only the Program in Environmental and Energy Policy explicitly has a concentration in disasters – specifically Disasters and Public Policy.

In each case, these programs are discipline specific. For example, students interested in disasters and sociology will still enroll in the graduate program in Sociology and Criminal Justice. The existing programs attract students interested in the discipline who

have an interest in disasters. In contrast, the proposed program is aimed at students who wish to focus on disasters and **not** on a specific discipline.

#### ***2.1.4 Utilization of Existing Resources***

The proposed program builds on relevant courses and ongoing research at the University of Delaware. The core courses include four existing courses: one from Political Science (POSC656 The Politics of Disaster), two from Education (EDUC665 Elementary Statistics, and EDUC850 Qualitative Research in Education), and one from Urban Affairs and Public Policy (UAPP819 Management Decision Making). Professor Sylves from Political Science who currently teaches POSC656 has started the UD On-Line Fellows Program to add a distance learning component to POSC656 Politics and Disaster. Numerous electives have been identified from among the existing graduate course offerings (These courses are listed in the Program Policy Statement). These courses are also electives in other departments, and enrollment will not place an undue burden on the instructors or departments.

#### ***2.2 Student Demand and Targeted Student Populations***

---

Students may enroll full-time or part-time. However, the PhD program has a residency requirement of two full continuous semesters. Entry to the PhD program also requires a master's degree.

#### ***2.3 Transferability***

---

We are not anticipating many transfer students. As admission to the program requires the commitment of an advisor, transfers will be reviewed on a case-by-case basis.

#### ***2.4 Graduate / Professional Program Access***

---

Not applicable

#### ***2.5 Demand and Employment Factors***

---

Graduates will be sought by state and local agencies, as well as consulting firms and academic institutions. Representatives of government organizations interviewed indicated that they have a need for graduates of programs such as ours. An informal review of online job opportunities revealed numerous opportunities that could outstrip our resources to support and advise students. Examples of positions available in October 2007 include the following:

##### **Academic Positions**

- Purdue University – Department of Building Construction Management
- SUNY Albany – Department of Public Administration & Policy
- University of Wisconsin-Green Bay – Department of Public and Environmental Affairs
- Texas A&M – Corpus Christi - Public Administration
- University of Colorado, Boulder – Natural Hazards Center (Program Manager)

- Louisiana State University – Stephenson Disaster Management Institute (SDMI), E. J. Ourso College of Business (2 Postdoctoral Researchers, 1 or more Assistant/Associate/Full Professor)
- Missouri State University – Department of Political Science
- Shaw University – Emergency Management

#### **Public Sector**

- San Francisco Bay Area Super Urban Area Security Initiative – Regional Planner Positions
- City and Country of Denver – Emergency Management Coordinator
- City of Chicago – Project Manager (Office of Emergency Management & Communications) – Local Preparedness Initiatives and Exercises, and Project Manager-Regional Planning (Office of Emergency Management & Communications)
- North Central Texas Council of Governments – Interns
- Maryland Department of Health & Mental Hygiene – Director, Office of Emergency Preparedness and Response
- Medical & Health Research Association of New York City (MHRA) – Training Coordinator
- The Congressional Research Service – Analyst in American National Government
- FEMA - Civil Engineers, and Insurance Program Specialist

#### **NGOs**

- Red Cross of Greater New York (Senior Coordinator, Mass Care & Sheltering, and Assistant Director, Drills & Exercises)

#### **Consultants**

- Booz Allen – Emergency Management Subject Matter Expert
- ICF – Emergency Management Exercise Planning Specialist

### ***2.6 Regional/State/ National Factors***

---

While related efforts are ongoing at institutions throughout the U.S., our proposed program is unique in its focus and in its integration of education and research. Department of Homeland Security Centers, such as the Center for the Study of Preparedness and Catastrophic Event Response (PACER) at The Johns Hopkins University and the Center for Risk and Economic Analysis of Terrorism Events at the University of Southern California, focus on research and have only peripheral involvement in education. On the other hand, the NSF-funded Earthquake Engineering Research Centers (MCEER, PEER, etc.) and the Natural Hazards Center at University of Colorado at Boulder emphasize particular types of disasters and are not degree granting programs while they do have an educational component. The FEMA Emergency Management Institute (EMI) in Emmitsburg, Maryland, promotes college-based emergency management education for future emergency managers and other interested personnel. EMI also provide a list of academic programs (<http://training.fema.gov/EMIWeb/edu/collegelist/>). While we believe there are no programs comparable to the proposed program, we include a short list to illustrate some of the differences:

- Master of Public Administration with a concentration in Emergency Management, University of North Texas (36-42 hours, no thesis) <http://www.padm.unt.edu/mpa/index.php/current/degree>
- Master's of Science in Emergency Management, Millersville University (30 credit hours, no thesis) <http://www.millersville.edu/~msem/curriculum.php>
- Ph.D. in Urban and Regional Science (URSC) and **Master of Urban Planning (MUP)** (48 credit hours with thesis) with a concentration in Hazard Planning and Emergency Management offered by the Department of Landscape Architecture and Urban Planning at Texas A&M <http://archone.tamu.edu/hrrc/Education/>
- MS (45 credit hours including a thesis) and PhD degrees in Emergency Management are offered in the Department of Sociology, Anthropology and Emergency Management at North Dakota State University <http://www.ndsu.edu/instruct/kulmer/socanth/graduate/index.htm>
- Disaster Science and Management at Louisiana State University offers a graduate minor <http://dsm.lsu.edu/graduate-minor.htm>
- MS in Fire and Emergency Management, Political Science Department, Oklahoma State University, <http://polsci.okstate.edu/graduate/femp/> (39 credit hours including practicum)

---

## ***2.7 Accrediting / Professional Mandates***

Not applicable

---

## ***2.8 Other Strengths***

The proposed program builds on the broad base of interdisciplinary research conducted by the Disaster Research Center, the over 660 field studies taken by the DRC, the interest indicated by more than 42 faculty from six different colleges who contributed to lunch-time discussions about the program and indicated their interest in participating in the program, and the national and international reputation of the University of Delaware for work related to disasters.

---

## **3 Enrollments, Admissions and Financial Aid**

---

### ***3.1 Enrollment Limitations/ Criteria***

The number of students accepted each year will depend upon the funding available, faculty research, and faculty resources for advising. This will be balanced against the need to ensure a cohort of students that form a critical mass. The cohort forms the core population for the required classes and facilitates the student-centered management of the program. Table 1 presents enrollment projections based on the anticipated resources, interest in the program, and the concept of developing a cohort of students. Table 2 shows similar projections for the maximum number of students we believe we can accommodate and the minimum number of students needed to have a viable program.

### ***3.2 Admission Requirements/ Criteria***

---

Admissions decisions will be made by the Program Committee of the Disaster Science and Management Program. Students will be admitted to the program based on enrollment availability, identification of an appropriate and committed advisor, and their ability to meet the following minimum recommended entrance requirements.

**Table 1. Enrollment Projections – Realistic Case**

<b>Program</b>	<b>Fall 2009</b>	<b>Fall 2010</b>	<b>Fall 2011</b>	<b>Fall 2012</b>	<b>Fall 2013</b>
MS Yr 1 Professional	5	10	15	20	20
MS Yr 2 Professional		5	10	15	20
MS Yr 1 Research	5	5	5	5	5
MS Yr 2 Research		5	5	5	5
<b>Total MS</b>	<b>10</b>	<b>25</b>	<b>35</b>	<b>45</b>	<b>50</b>
PhD Yr 1	2	2	2	2	2
PhD Yr 2		2	2	2	2
PhD Yr 3			2	2	2
PhD Yr 4				2	2
<b>Total PhD</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>8</b>
<b>Total Students</b>	<b>12</b>	<b>29</b>	<b>41</b>	<b>53</b>	<b>58</b>
Number of Graduates	0	10	15	22	27

**Table 2. Maximum and Minimum Enrollment Projections**

	<b>Program</b>	<b>Fall 2009</b>	<b>Fall 2010</b>	<b>Fall 2011</b>	<b>Fall 2012</b>	<b>Fall 2013</b>
Minimum Number of Students	MS Yr 1 Professional	3	3	3	3	3
	MS Yr 2 Professional		3	3	3	3
	MS Yr 1 Research	3	3	3	3	3
	MS Yr 2 Research		3	3	3	3
	<b>Total MS</b>	<b>6</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>
	PhD Yr 1	1	1	1	1	1
	PhD Yr 2		1	1	1	1
	PhD Yr 3			1	1	1
	PhD Yr 4				1	1
	<b>Total PhD</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4</b>
	<b>Total Students</b>	<b>7</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>16</b>
Number of Graduates	0	6	6	7	7	
Maximum Number of Students	<b>Program</b>	<b>Fall 2009</b>	<b>Fall 2010</b>	<b>Fall 2011</b>	<b>Fall 2012</b>	<b>Fall 2013</b>
	MS Yr 1 Professional	10	15	20	30	40
	MS Yr 2 Professional		10	15	20	30
	MS Yr 1 Research	10	10	10	10	10
	MS Yr 2 Research		10	10	10	10
	<b>Total MS</b>	<b>20</b>	<b>45</b>	<b>55</b>	<b>70</b>	<b>90</b>
	PhD Yr 1	4	4	4	4	4
	PhD Yr 2		4	4	4	4
	PhD Yr 3			4	4	4
	PhD Yr 4				4	4
	<b>Total PhD</b>	<b>4</b>	<b>8</b>	<b>12</b>	<b>16</b>	<b>16</b>
<b>Total Students</b>	<b>24</b>	<b>53</b>	<b>67</b>	<b>86</b>	<b>106</b>	
Number of Graduates	0	20	25	34	44	

Applicants to the MS program must have

- A baccalaureate degree from an accredited college or university.
- A recommended GRE score of 1050 on math and verbal sections combined
- An undergraduate GPA of 3.0 or higher
- A written statement of goals and objectives (the personal statement) that clearly identifies the applicant's research and curriculum interests and explains how admission to the program will facilitate his or her professional objectives.

Applicants to the PhD Program must have

- An MS or equivalent degree from an accredited college or university.
- A recommended GRE score of 1050 on math and verbal sections combined
- A graduate GPA of 3.5 or higher.
- A written statement of goals and objectives (the personal statement) that clearly identifies the applicant's research and curriculum interests and explains how admission to the program will facilitate his or her professional objectives.

All students are also expected to demonstrate competence in oral and written communication. Knowledge of mathematics and statistics is strongly encouraged. All admitted students will have an advisor.

### ***3.3 Transfer Policy***

---

Not applicable

### ***3.4 Retention Policy***

---

Not applicable

### ***3.5 Student Expenses and Financial Aid***

---

#### ***3.5.1 Extraordinary Expenses***

No extraordinary expenses are anticipated.

#### ***3.5.2 Sources of Financial Support***

Students in the professional master's track are expected to be self-supporting although some scholarship support will be provided to seed the program. Student loans will be available through the usual channels. More importantly, we will work with employers and government agencies to encourage them to provide tuition for their employees. A limited number of scholarships or tuition remissions should be available when the program is launched to help market the program.

We anticipate supporting most students in the research track on graduate research assistantships provided by external grants through the faculty advisors. Students will also be encouraged to compete for University and external fellowships. We also believe that a limited number of international students will be attracted to the program with their own funding. Part-time students will provide their own funding.



## 4 Curriculum Specifics

---

### 4.1 Degrees Awarded

---

- Master of Science in Disaster Science and Management
- Doctor of Philosophy in Disaster Science and Management

### 4.2 Curriculum

---

The **Master of Science in Disaster Science and Management (non-thesis option)** requires 30 credits including 24 credits of graduate level coursework, 4 semesters of seminar (2 semesters at 1 credit per semester and 2 semesters as a listener), and 4 credits of practicum. The 24 credits of coursework for the **Master of Science in Disaster Science and Management** are specified in the student's plan of study and must include the following:

*Three core courses (9 credits):*

DISA 650 – Introduction to Disasters/Historical Aspects of Disasters

POSC 656 – The Politics of Disaster/Public Policy Aspects of Disasters

DISA 651 – International Aspects of Disasters/Development/Comparative Analysis

*Research/Methods/Analysis Course (3 credits):*

EDUC 665 – Elementary Statistics, or

EDUC 850 – Qualitative Research in Education

(or if appropriate UAPP 815 Public Management Statistics, or UAPP 808 Qualitative Methods for Program Evaluation)

*Public Policy and Organizational Decision-Making (3 credits):*

UAPP 819 – Management Decision Making for Public and Non-Profit Sectors (3 credits), or

MAST 663 – Decision Tools for Policy Analysis (3 credits)

*Seminars (2 credits):*

DISA 680 - Disaster Science and Management Seminar (1 credit)

Taken four semesters – two semesters for credit, two semesters as a listener,

*Internship (4 credits):*

DISA 867- Practicum

A one credit course in the spring semester is followed by a 3 credit summer internship. Students could do internships with DEMA, FEMA, other DHS Offices, United Nations, USAID, etc. Study abroad is also strongly encouraged.

*Elective Courses (9 credits).*

The **Master of Science in Disaster Science and Management (thesis option)** requires 30 credits including 24 credits of graduate level coursework, 4 semesters of seminar (2 semesters at 1 credit per semester and 2 semesters as a listener), 1 credit of practicum, and 6 credits of thesis. The 24 credits of coursework for the **Master of Science in Disaster Science and Management** are specified in the student's plan of study and must include the following:

*Three core courses (9 credits):*

DISA 650 – Introduction to Disasters/Historical Aspects of Disasters

POSC 656 – The Politics of Disaster/Public Policy Aspects of Disasters  
 DISA 651 – International Aspects of Disasters/Development/Comparative Analysis  
*Research/Methods/Analysis Courses (6 credits):*  
 EDUC 665 – Elementary Statistics (or if appropriate UAPP815 Public Management Statistics)  
 EDUC 850 – Qualitative Research in Education (or if appropriate UAPP 808 Qualitative Methods for Program Evaluation)  
*Public Policy and Organizational Decision-Making (3 credits):*  
 UAPP 819 – Management Decision Making for Public and Non-Profit Sectors (3 credits), or  
 MAST 663 – Decision Tools for Policy Analysis (3 credits)  
*Seminars (2 credits):*  
 DISA 680 - Disaster Science and Management Seminar (1 credit)  
 Taken four semesters – two semesters for credit, two semesters as a listener,  
*Internship (1 credit):*  
 DISA 867- Practicum  
 Spring course is followed by the summer internship (no credit). Students could do internships with DEMA, FEMA, other DHS Offices, United Nations, USAID, etc. The practicum can also be substituted by a research project at DRC. Study abroad is also strongly encouraged.  
*Thesis (6 credits)*  
*Elective Courses (3 credits).*

The **Doctor of Philosophy in Disaster Science and Management** requires 42 credits of graduate-level coursework beyond the master's degree including 9 credits of dissertation. Students are expected to choose a thematic area such as one of the following:

- Organizations, management, and leadership – focus on management and leadership in all phases of a disaster. Includes knowledge of institutional structures and tools to support decision making.
- Built and natural environment, and society – focus on the interfaces among the three infrastructures (built, natural and social) with an emphasis on the opportunities to control, influence, accommodate, and understand changes and needs during and after catastrophic events.
- Vulnerability and resilience – focus on how systems are impacted by and respond to catastrophic events. Includes how systems can be modified or adapted to reduce vulnerability and improve resilience.
- Policy and planning – focus on response to disasters including continuity of operations.
- Simulation and modeling – focus on decision support tools and the modeling of impacts to support disaster planning, mitigation, response, and recovery.
- Health systems leadership: public health disaster planning and response – focus on the role of health professionals and systems in planning for and responding to disasters.

The 42 credits of coursework for the **Doctor of Science in Disaster Science and Management** are specified in the individual planned program of study, and must include the following:

*Courses from a thematic area listed above (at least 9 credits)*

*Research methods (qualitative or quantitative) (at least 6 credits):*

EDUC 665 – Elementary Statistics

EDUC 850 – Qualitative Research in Education (or UAPP 808 Qualitative Methods for Program Evaluation)

ECON877 - Advanced Benefit-Cost Analysis

MAST664 - Decision Tools for Policy Analysis

ORES601 - Survey Operations Research I

ORES602 - Survey Operations Research II

ORES603 - Simulation Modeling and Analysis

ORES801 - Optimization Models and Methods

ORES802 - Operations Research Applications

POSC816 - Advanced Social Research for Political Science

SOCI607 – Data Collection and Analysis

STAT800 - Estimation and Statistical Inference I

UAPP 815 – Public Management Statistics

UAPP816 – Advanced Social Statistics

UAPP 827 - Program and Project Analysis (cost-benefit analysis).

*PhD Dissertation in the thematic area (9 Credits)*

*Seminar (3 credits)*

Students must register for and attend three semesters of seminar (DISA 680).

Students are expected to participate in seminar as a listener for other semesters that they are on campus.

*Electives (15 credits)*

Electives are intended to enhance and broaden a student's scholarly involvement in the program. Students in the doctoral degree program are allowed to take a maximum of 6 credits of independent study (DISA 866) and a maximum of 9 credits of research (DISA 868). However, the combined number of credits from research and independent study courses may not exceed 12.

### ***4.3 Sample Curriculum***

---

A sample program of study for the Master's of Science in Disaster Science and Management (non-thesis option) full-time is shown in Table 3.

An alternative plan of student for Master of Science in Disaster Science and Management (non-thesis option) completed in one year is shown in Table 4.

A sample program of study for the Master's of Science is shown in Table 5.

A sample plan of study for a student entering the MS and PhD programs directly from an undergraduate program is shown in Table 6.

**Table 3. Plan of Study for MS (non-thesis option).**

Fall – Year 1	Spring – Year 1	Summer
DISA 650 Introduction to Disasters (3) EDUC 850 – Qualitative Research in Education (3) Elective I (3) DISA 680 Seminar (1)	POSC 656 The Politics of Disaster (3) DISA 651 Int. Aspects of Disasters (3) DISA 867 Practicum (1) DISA 680 Seminar (1)	DISA 867 Practicum (3)
Fall Year 2	Spring – Year 2	
UAPP 819 – Management Decision Making (3) Elective II (3) Elective III (3) DISA 680 Seminar (L)		

L = Listener, Total 30 credits

**Table 4. One-Year Plan of Study for MS (non-thesis option)**

Fall	Spring	Summer
DISA 650 Introduction to Disasters (3) EDUC 850 – Qualitative Research in Education (3) Elective I (3) DISA 680 Seminar (1) UAPP 819 – Management Decision Making (3)	POSC 656 The Politics of Disaster (3) DISA 651 Int. Aspects of Disasters (3) DISA 867 Practicum (1) DISA 680 Seminar (1) Elective II (3) Elective III (3)	DISA 867 Practicum (3)

L = Listener, Total 30 credits

**Table 5. Plan of Study for MS (Thesis Option)**

Fall – Year 1	Spring – Year 1	Summer
DISA 650 Introduction to Disasters (3) EDUC 850 – Qualitative Research in Education (3) Elective I (3) DISA 680 Seminar (1)	POSC 656 The Politics of Disaster (3) EDUC 665 – Elementary Statistics (3) DISA 867 Practicum (1) DISA 680 Seminar (1)	UNIV 554 Internship
Fall Year 2	Spring – Year 2	
UAPP 819 – Management Decision Making (3) DISA 869 Thesis (3) DISA 680 Seminar (L)	DISA 651 Int. Aspects of Disasters (3) DISA 869 Thesis (3) DISA 680 Seminar (L)	

L = Listener  
Total 30 credits

**Table 6. MS and PhD Plan of Study**

Year	Fall	Spring	Summer
1	DISA 650 Introduction to Disasters (3) EDUC 850 – Qualitative Research in Education (3) Elective (3) DISA 680 Seminar (1)	POSC 656 The Politics of Disaster (3) DISA 651 Int. Aspects of Disasters (3) EDUC 665 – Elementary Statistics (3) DISA 867 Practicum (1) DISA 680 Seminar (1)	UNIV 554 Internship
2	UAPP 819 Decision Making (3) DISA 869 Thesis (3) DISA 680 Seminar (L)	Elective (3) DISA 869 Thesis (3) DISA 680 Seminar (L)	Qualifier UNIV 554 Internship
3	Specialization 1 (3) Research Methods III (3) DISA 680 Seminar (1)	Specialization 2 (3) Research Methods IV (3) DISA 680 Seminar (1)	
4	Elective IV (3) Research 1 (3) DISA 680 Seminar (1)	Elective V (3) Research 2 (3) DISA 680 Seminar (L)	
5	Research 3 (3) Thesis (3) DISA 680 Seminar (L)	Thesis (6) DISA 680 Seminar (L)	

## 5 Resources Available

### 5.1 Learning Resources

The MS program will be supported by excellent print and electronic resources available for the study of disasters through the Morris Library and the E.L. Quarantelli Resource Collection housed at the Disaster Research Center. A letter from the Director of Libraries verifying support is included in Appendix D.

The E. L. Quarantelli Resource Collection at the Disaster Research Center (DRC) serves as a repository for materials relating to the field of disaster research produced by a wide range of institutions and researchers. The Center's collection contains the world's oldest and most complete set of documents on the social and behavioral aspects of disasters. One of the Collection's unique strengths is its highly specialized content, which includes significant unpublished papers, conference presentations, older government reports, and declassified information. The Collection now numbers more than 55,000 items and is open to both interested researchers and agencies involved in emergency management and related areas. The Center also produces its own book, monograph, and report series, copies of which can be found in the Collection. These, combined with copies of preliminary papers and articles produced by DRC staff members, total over 850 publications generated by the DRC. The Resource Collection has one full-time Resource Collection Coordinator and the support of an undergraduate student for 12–15 hours per

week. Funding for personnel and material support for the Collection comes entirely from gifts.

### ***5.2 Faculty/ Administrative Resources***

---

The program will reside in the College of Human Resources, Education and Public Policy (CHEP) in the School of Urban Affairs and Public Policy (SUAPP). The SUAPP faculty have voted on the program and a letter from the director is included in Appendix B indicating unanimous support for the program assuming appropriate resources.

The program will be administered by a Program Director, a Program Committee, and other committees (seminar and PhD qualifier). The Program Director will be a faculty member appointed by the Dean of the College where the program resides. The Program Committee is modeled after the Program Committee in Biomechanics and Movement Science (BIOMS). The Program Committee will be selected from among the faculty affiliated with the program. Faculty who have indicated that they are interested in being affiliated with the program are listed in Appendix F.

### ***5.3 External Funding***

---

The Disaster Research Center currently supports nine research assistants from Sociology on externally research projects. It is anticipated that many of these funding lines will continue to support the current graduate students from Sociology and, where appropriate, new graduate students in Sociology. However, DRC faculty along with colleagues in Civil and Environmental Engineering are actively pursuing research funding in interdisciplinary areas. In addition, the University Transportation Center at the University of Delaware (UDUTC) focuses on *resiliency of transportation corridors* and currently supports one student working on disasters. It is likely that the UDUTC will be able to fund at least one student each year. Other sources of funding include resources that faculty from other programs bring to the program, self-funded international students, and external fellowships.

## **6 Resources Required**

---

---

### ***6.1 Learning Resources***

---

No new learning resources are needed to implement the proposed program.

### ***6.2 Faculty/Administrative Resources***

---

While the proposed program involves an enthusiastic group of existing faculty, these faculty have responsibilities in their home departments. Therefore, we are requesting 5 FTEs on the following basis:

- Program Director – 0.4 FTE
- Program Committee – 0.6 FTE (6 members at 0.1 FTE each on the basis of administered workload)
- New Courses – 2.0 FTEs (assuming between 5 and 7 new courses)
- Advising PhD and MS students and guiding dissertations and theses – 2.0 FTE

Faculty recruiting will require active collaboration with departments that are interested in supporting the proposed program and are willing to explore joint appointments,

synergistic relationships, and opportunities to leverage existing resources. We seek faculty hires in areas that are consistent with the thematic areas and the teaching needs of the proposed graduate program. Suggested areas as they relate to disasters include the following:

- Emergency management (for example, preparedness, response and recovery)
- Economics, finance and business
- International aspects of disasters
- Evacuation, supply chain management and logistics, or systems engineering
- Spatial analysis and geographic information systems
- Public health or epidemiology.

An International Advisory Board will be assembled to provide advice to the program. The Board will meet annually.

An administrative assistant is also required to support the program. The administrative assistant's responsibilities will include

- Processing graduate student applications including application review and admissions
- Completing graduate research assistant appointments
- Scheduling visits of graduate applicants
- Helping with graduate student recruitment
- Helping to identify internships
- Assisting with student placement
- General program administration including
  - Matching students to internships
  - Scheduling and providing logistics support for meetings of the program committee, the seminar meeting, the PhD Qualifier Committee, the International Advisory Board, and thesis and dissertation defenses.

We will also need resources for graduate recruiting, including website development, minimal support for campus visits for prospective graduate students, travel support for recruiting graduate students at conferences, and administrative supplies.

### ***6.3 Budgeting Needs:***

---

In addition to the faculty and administrative resources, initial resources are needed to attract, recruit, and support graduate students. Eventually, it is anticipated that most graduate assistantships and fellowships will come from external research contracts and grants and from internal and external competitive graduate fellowship programs. As the program becomes more established, we expect that participating faculty will have developed new research initiatives. We also plan to work with development to find scholarship and fellowship funding that will be available to the professional students. Table 7 lays out a plan for funding research assistants and providing limited scholarship opportunities for professional students. As the table indicates, we are requesting four research assistantships to initiate the program in the first year and then seven research assistantships in the second year. In subsequent years, due to external funding increases we expect the commitment from the university to diminish.\

**Table 7. Potential Research Assistant Funding Plan**

	Number of students	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
MS (Thesis Option) and PhD	Total Students	7	14	16	18	18
	Funding Sources					
	DRC	1	3	5	7	8
	UTC	1	1	1	1	1
	Other Sources	1	3	5	7	9
	Total funds	3	7	11	15	18
	Gap	4	7	5	3	0
MS (Non_thesis Option)	Total Students	5	15	25	35	40
	Scholarships	2	3	2	1	0

## **7 Implementation Plan and Evaluation**

---

### ***7.1 Implementation***

Once the graduate program is approved by the various University committees and the Faculty Senate and resources have been identified, a Program Committee will be assembled, and applications will be solicited for the 2009-2010 academic year. We have already received several informal inquiries.

### ***7.2 Evaluation Plan***

The normal University of Delaware process will be to give the new program temporary status. Review for permanent approval will be scheduled for five years after the startup of the program. The review procedure for the program will follow standard UD review protocol for M.S. programs. The proposed International Advisory Board will also provide feedback and advice on recruiting, retaining, and placing students; new sources of research funding; and interactions with other organizations.



## **Appendices**

---

A. *Accreditation Plan*

Not applicable

B. *Letters of Collaborative Agreement*

College of Agriculture and Natural Resources

College of Business Administration

College of Marine and Earth Studies

Department of Business Administration

Department of Civil and Environmental Engineering

Department of Sociology and Criminal Justice

Professional and Continuing Studies

School of Nursing

University Libraries



OFFICE OF ACADEMIC  
PROGRAMS AND RESEARCH

113 Townsend Hall  
University of Delaware  
Newark, Delaware 19716-2103  
Ph: 302/831-2501  
Fax: 302/831-6758

October 25, 2007

TO: Dr. Sue McNeil  
Department of Civil and Environmental Engineering  
Director, University of Delaware Disaster Research Center

FROM: Dr. Tom Sims   
Associate Dean, College of Agriculture and Natural Resources

SUBJECT: Proposed Graduate Program in Disaster Science and Management

The College of Agriculture and Natural Resources wishes to express its strong support for the proposed new inter-disciplinary graduate program in Disaster Science and Management. We believe the program is well-constructed and offers an exciting opportunity for faculty and students in our college to collaborate with others at the University of Delaware on research and teaching in an area of worldwide critical importance. Our faculty expertise in the agricultural and environmental sciences is highly relevant to understanding and managing natural and human-induced disasters and we look forward to participating actively in this program in the future.

Thank you.

cc: Dean Robin Morgan, College of Agriculture and Natural Resources  
CANR Department Chairs



ALFRED LERNER COLLEGE OF BUSINESS AND ECONOMICS

OFFICE OF THE DEAN

303 Alfred Lerner Hall  
University of Delaware  
Newark, Delaware 19716-2701  
Ph: 302/831-2551  
Fax: 302/831-6750  
www.lerner.udel.edu

TO: Sue McNeil  
FROM: Bobby Gempesaw *Bobby Gempesaw*  
DATE: November 11, 2008  
RE: Proposed Graduate Program in Disaster Science & Management

On behalf of the Lerner College of Business and Economics, I write to support the proposed graduate program in Disaster Science and Management.

This proposed interdisciplinary degree program builds on the work of the Disaster Research Center and provides an opportunity to engage faculty from other departments and colleges in disaster research and education. We look forward to having students from the program in our courses in the Lerner College of Business and Economics.



October 18, 2007

MEMORANDUM

TO: Sue McNeil, Professor  
FROM: Nancy M. Targett, Dean *Nancy M. Targett*  
SUBJECT: Proposed Graduate Program

On behalf of the College of Marine and Earth Studies, I write to support the proposed graduate program in Disaster Science and Management.

Such a program is timely, and, it is my belief that the well regarded, multi-disciplinary Disaster Research Program is an excellent host for it. Faculty from the College of Marine and Earth Studies can be expected to make significant contributions by advising students who are interested the broad science and policy aspects of coastal resiliency and vulnerability.

You have my strong support as you move forward with this well-thought-out degree program.

**Sue McNeil**

---

**From:** Andrews, Rick [andrews@lerner.udel.edu]  
**Sent:** Monday, October 29, 2007 11:50 AM  
**To:** Sue McNeil  
**Subject:** Graduate Program in Disaster Science and Management

October 29, 2007

Professor Sue McNeill  
Department of Civil and Environmental Engineering  
360D Dupont Hall

Dear Professor McNeill:

I would like to voice my support for the proposed Graduate Program in Disaster Science and Management.

At present two of our graduate courses, BUAD 870 (Understanding People in Organizations) and BUAD 880 (Marketing Management) would lend themselves nicely to the program, are offered frequently and have seats available for graduate students in the proposed program. BUAD 837 (Decision Support and Expert Systems for Business), provides another possible course, but it has not been offered in quite some time.

I look forward to working with you in the future. Please let me know if you have questions about other BUAD courses that could possibly be used in the program. Best wishes in getting the new program approved.

Rick Andrews

---

*Dr. Rick L. Andrews  
Professor of Marketing and Department Chair  
Department of Business Administration  
Lerner College of Business & Economics  
University of Delaware  
Newark, DE 19716  
Phone: (302) 831-1190  
Fax: (302) 831-4196  
Website: <http://www.buec.udel.edu/andrews/>*



COLLEGE OF ENGINEERING

DEPARTMENT OF  
CIVIL & ENVIRONMENTAL  
ENGINEERING

301 DuPont Hall  
University of Delaware  
Newark, Delaware 19716-3120  
Ph: 302/831-2442  
Fax: 302/831-3640

October 5, 2007

TO: Sue McNeil, Professor

FROM: Harry W. Shenton III, Chair

SUBJECT: Proposed Graduate Program

A handwritten signature in black ink, appearing to read "H. Shenton III", written over the "FROM:" line.

This memo is to convey the support of the Department of Civil and Environmental Engineering for the proposed graduate program in Disaster Science and Management.


The theme of the proposed interdisciplinary program is timely, given the repercussions of recent disasters both in the U.S. and in other countries throughout the world. We believe that faculty from our department can make a significant contribution advising students who are interested in the themes of (1) the natural and built environment and (2) resiliency and vulnerability and who have backgrounds in one of the civil engineering disciplines.

We look forward to further development of the program.



October 30, 2007

To: Sue McNeil, Director  
Disaster Research Center

From: Ronet Bachman, Chair   
Department of Sociology and Criminal Justice

Re: Proposed Graduate Program in Disaster Science and Management

Prior to the Fall of 2006, the Disaster Research Center (DRC) was housed within the Department of Sociology and Criminal Justice. Currently, there are four of our faculty members who are still affiliated with the DRC, which is now located within the College of Arts and Sciences, including Havidan Rodriguez, currently serving as the Vice Provost for Academic Programs and International Programs, Joanne Nigg, Benigno Aguirre, and Tricia Wachtendorf. This letter delineates the Department of Sociology and Criminal Justice concerns about the proposed Disaster Science and Management (DSM) graduate program.

Within the Sociology major, students have the option of obtaining a concentration in Emergency and Environmental Management. Currently, there are fewer than 15 students who are registered for this concentration, compared to approximately 35 in the Law and Society concentration, 35 in the Social Welfare concentration, and 25 in the Health Administration concentration (Note: Sociology majors do not have to enroll in a concentration so these totals do not equal the total number of our majors). In our Sociology Ph.D. program, students also have the opportunity to take a comprehensive examination in the "Collective Behavior/Disaster Studies" area under which courses in the Sociology of Disasters are required. Since 1999, only 9 students have taken this exam.

The Department has been and continues to be very supportive of the faculty members who are affiliated with the DRC. Annually, they are allowed to share a one-course buyout at a rate that is, on average, lower than the typical 12.5% that other faculty must obtain

for a course reduction. We also allow them to teach disaster-related courses on a regular basis, much more frequently than the demand from our undergraduate and graduate programs require. In fact, in the past, most of these graduate seminars have typically not had more than 3 or 4 Sociology students enrolled. As such, we believe we are already significantly contributing to the mission of the DRC.

Of course, we also get a great deal in return including the funding of a mean number of 5 of our graduate students annually in the past 5 years. These students get a wealth of research experience that would not ordinarily be available to them. The Department also receives its share (14%) of the indirect funds obtained from grants awarded to our faculty members affiliated with the DRC. In 2006, this was approximately \$9,000. This year, the Department will acquire the full 28% of the F&A to recover a portion of a typical 12.5% buy-out for a DRC affiliated faculty member.

The sample Ph.D. curriculum plan includes a course titled "Introduction to Disasters" (DISA 650), which sounds very much like at least 1 of our courses. In addition, the plan calls for at least 4 other courses that are either not specified or are electives within the curriculum. From an administrative standpoint, there have been no additional faculty members hired to meet these demands. As such, I am concerned that the faculty affiliated with our department will be called upon to teach these required courses. While we are certainly willing to enroll students from the new DSM program into disaster-related Sociology courses when they are offered, we would not be able to increase the frequency with which they are currently taught nor would we be able to release Sociology faculty affiliated with the Center from teaching core courses in the department. This would have a significant negative impact on meeting our other curriculum needs at both the undergraduate and graduate levels.

In sum, we will enthusiastically welcome DSM students to our courses when they are offered, but we simply cannot increase the quantity of disaster-related courses, nor the frequency with which they are taught. In a presentation on the DSM program made to the Department by Sue McNeil on October 3, we were told that the new curriculum would not require additional resources from the department in the form of either 1) committing Sociology faculty affiliated with the Center to teach courses nor in 2) asking the department to hire additional Sociology faculty in the disaster field. As such, if additional faculty members are not hired to meet the DSM course requirements, I do not see how the DSM graduate program can possibly go forward.





DIVISION OF PROFESSIONAL  
AND CONTINUING STUDIES  
OFFICE OF THE ASSISTANT PROVOST

214-215 Clayton Hall  
University of Delaware  
Newark, Delaware 19716-7410  
Ph: 302/831-2795  
Fax: 302/831-1077

June 4, 2008

Sue McNeil, Ph.D., PE  
Professor, Department of Civil and Environmental Engineering  
Director, Disaster Research Center  
Director, University Transportation Center  
University of Delaware  
Newark, DE 19716

Dear Sue:

This letter is in support of the proposed graduate program in disaster science and management. Professional and Continuing Studies, through UD Online, will work with you and the program as requested to offer courses through distance learning. Services we could provide include registration assistance, instructional design, and course delivery via the Internet or other distance learning approaches.

We are excited about supporting this innovative and dynamic program.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim".

James K. Broomall, D.Ed.  
Assistant Provost

JKB/jwc



SCHOOL OF NURSING

McDowell Hall  
University of Delaware  
Newark, Delaware 19716-3710  
Ph: 302/831-1253  
Fax: 302/831-2382  
E-mail: ud-nursing@udel.edu

31 October 2007

Dr. Sue McNeil  
Director, Disaster Research Center  
360D DuPont Hall  
University of Delaware  
Newark, DE 19716

Dear Dr. McNeil,

It is with a great deal of pleasure that I write in support of the Doctor of Philosophy (PhD) program in Disaster Management that is being proposed by the University Of Delaware. The multiplicity of disasters that have occurred in the past several years is mute testimony to the overwhelming need for such a program. One need only consider the effects of the attacks that occurred on 9-1-1, hurricane Katrina, the California Fires of 2007, etc to see that such a program would benefit our nation.

The University Of Delaware is renowned for its leadership in the area of disaster research. Its legacy stems from the fact that in 1963 a Disaster Research Center was founded at Ohio State University as the first social science center in the world to be devoted to the study of disasters. In 1985 that Center moved to the University of Delaware where it has grown in stature and productivity. Researchers at the Center have conducted studies of hurricanes, floods, earthquakes, tornadoes, hazardous chemical incidents and plane crashes. Staff have conducted some 600 studies since the Center's inception. Hence the level of expertise that has grown to national and international prominence has propelled the University of Delaware into its pre-eminent position as the world's resource for disaster studies.

Given its rich history and its world renowned Disaster Research Center the PhD in Disaster Management seems a logical progression for interdisciplinary study. The School of Nursing supports, without reservation, this proposed PhD in Disaster Management. If you need additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Kenneth P. Miller".

Kenneth P. Miller, PhD., RN, CFNP, FAAN  
Director, School of Nursing  
University of Delaware



UNIVERSITY OF  
DELAWARE LIBRARY  
OFFICE OF THE DIRECTOR

University of Delaware  
Newark, Delaware 19717-5267  
Phone: 302/831-2231  
Fax: 302/831-1046  
Library Web: <http://www.lib.udel.edu>

October 26, 2007

MEMORANDUM

To: Susan McNeil  
Director  
Disaster Research Center

From: Susan Brynteson   
The May Morris Director of Libraries

I am responding to your request to supply information about the capability of the University of Delaware Library to support the proposed Interdisciplinary Graduate Program in Disaster Science and Management.

The University of Delaware Library is well able to support the proposed new program up to and including at the doctoral level. Enclosed is a description of collections, resources and services available.

I would be pleased to respond to any questions.

SB/nb  
Enclosure

c: Erin Daix, Associate Librarian, Reference Department



UNIVERSITY OF  
DELAWARE LIBRARY  
OFFICE OF THE DIRECTOR

University of Delaware  
Newark, Delaware 19717-5267  
Phone: 302/831-2231  
Fax: 302/831-1046  
Library Web: <http://www.lib.udel.edu>

October 26, 2007

Report on Library Services and Collections in Support of an  
Interdisciplinary Graduate Program in Disaster Science and Management

General Description

The University of Delaware Library includes the Hugh M. Morris Library, where the main collection is housed, and three branch libraries located on the Newark campus--the Agriculture Library, the Chemistry Library, and the Physics Library--and a fourth branch library, the Marine Studies Library, located in Lewes, Delaware. The Library collections parallel the University's academic interests and support all disciplines. In addition to collections which directly support Disaster Science and Management, the Library has strong collections in other areas that relate to the Disaster Science and Management, such as: Civil Engineering; Communication; Computer and Information Sciences; Economics; Environmental Studies; Geography; Geology; Health Sciences; History; Natural Resource Management; Operations Research; Political Science and International Relations; Psychology; Sociology; Statistics; and Urban Affairs and Public Policy.

Books, periodicals, microforms, government publications, computer databases and other electronic resources, maps, manuscripts, and media provide a major academic resource for the University of Delaware, the surrounding community, the state of Delaware, and the nation. Library staff members provide a wide range of services, including reference assistance, circulation, interlibrary loan, instructional programs, multimedia design, and assistance to the visually impaired.

The University of Delaware Library is a U.S. depository library and a U.S. patent depository library and contains a complete file of every patent the U.S. Office of Patents and Trademarks has issued.

The online catalog, DELCAT, provides access to millions of items by author, title, subject, and keyword.

Library collections include over 2,700,000 volumes and are broad-based and comprehensive.

The University of Delaware Library is a member of the Association of Research Libraries, OCLC, the Center for Research Libraries, PALINET, CIRLA (The Chesapeake Information and Research Library Alliance), NERL (NorthEast Research Libraries), and Portico.

### Specific Support for Disaster Science and Management

A professional librarian, Erin Daix, Associate Librarian in the Reference Department, serves as liaison to the faculty in the Disaster Research Center. Suggestions for purchases received by the Library for materials related to the Disaster Research Center are directed to Ms. Daix, who also regularly consults faculty about priorities and the direction the collections should take. Ms. Daix is also available for instruction in the use of the Library for students and faculty.

Ms. Daix maintains a subject Web site for Disaster Studies which can be accessed from the Library Web [www.lib.udel.edu](http://www.lib.udel.edu) by clicking on "Subject Guides A to Z" or directly by the URL <http://www2.lib.udel.edu/obj/disasters/>. In addition to electronic resources, it contains detailed descriptions of selected primary resources including printed collections; visual material; and manuscripts and archival materials.

Support for the Disaster Research Center is supplemented by funds used to purchase materials in the related areas noted previously as well as funds for the purchase of electronic resources.

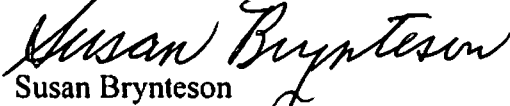
In early 2005, the University of Delaware Library officially launched the University of Delaware Library Institutional Repository after a pilot during fall 2004 with five participating University of Delaware departments and research centers. During this pilot and after a series of discussions concerning the Disaster Research Center Resource Collection and with the goal of providing online access to materials in the Disaster Research Center collection, the Library digitized more than 30,000 pages of technical reports and non-copyrighted documents from the University of Delaware Disaster Research Center for incorporation into the University of Delaware Library Institutional Repository. The Disaster Research Center materials are now available electronically on a worldwide no-fee basis. The Institutional Repository which uses DSpace open source software now contains more than 65 collections from more than 25 participating departments and research centers. Collections include technical reports, prostatic tissue array images, Excel data files of 18th century tax records, and electronic books. The inclusion of the Disaster Research Center documents in the Institutional Repository was a major factor in contributing to the success on campus of the Institutional Repository.  
See: <http://dspace.udel.edu:8080/dspace/handle/19716/35/>

The Library subscribes to many print journals and electronic journals which support the Disaster Research Center. A list of electronic journals by subject is available from the Library Web by clicking on "Electronic Journals" at the top of the main page.  
See: <http://www.lib.udel.edu/>.

In addition to various reference sources in print, the Library also makes available several multidisciplinary electronic databases and subject databases which would support the work of students and faculty in Disaster Science and Management, including: [ABI/INFORM](#); [Academic OneFile](#); [AccessUN](#); [AccuNet/AP Multimedia Archive](#); [AGRICOLA](#); [America: History and](#)

Life; Aquatic Sciences Set; Biological Abstracts; Biological and Agricultural Index Plus; Expanded Academic ASAP Plus; Business Source Premier; CINAHL; Compendex; Computer Database; CQ Researcher Plus; EconLit; EIU Country Profiles; EIU Country Reports; Environmental Sciences and Pollution Management; Expanded Academic ASAP; GEOBASE; GeoRef; Health Reference Center Academic; Historical Abstracts; New York Times; Homeland Security Digital Library; Knovel; LexisNexis Academic, and additional LexisNexis databases; MEDLINE; Opposing Viewpoints; PAIS International; Population Index; ProQuest Dissertations and Theses, PsycINFO; Public Administration Abstracts; PubMed; Readers' Guide Retrospective; Sociological Abstracts; STAT-USA; TOXNET; Urban Studies Abstracts; ViewsWire; Web of Science; and World News Connection. Many of these databases incorporate the Library's major linking service, Article Express, for electronic access to the full text of journal articles. Additional databases that support the Disaster Research Center are available from the databases section of the Disaster Studies Subject Guide.  
See: <<http://www2.lib.udel.edu/subj/disasters/db.htm/>>.

The Library also has a strong collection of videotapes and films which cover a wide range of subjects including Disaster Studies. The video collection is heavily used; is increasing in size; and there has been much consultation about it by Francis Poole, Librarian and Head of the Instructional Media Collection Department, with faculty in all areas.

  
Susan Brynteson  
The May Morris Director of Libraries

C. *Transfer/Retention Policy*

Not Applicable

D. *Letters of Approval from Contributing Departments and Centers*

Department of Political Science and International Studies

School of Education

School of Urban Affairs and Public Policy (courses)

School of Urban Affairs and Public Policy (program approval)

Disaster Research Center core faculty



DEPARTMENT OF  
POLITICAL SCIENCE AND  
INTERNATIONAL RELATIONS

University of Delaware  
Newark, Delaware 19716-2574  
Ph: 302/831-2355  
Fax: 302/831-4452

October 25, 2007

Sue McNeil  
Director  
Disaster Research Center  
University of Delaware

Dear Sue,

With this letter I would like to state the support of the Department of Political Science and International Relations for an Interdisciplinary Graduate Program in Disaster Science and Management (DSAM). We understand that the program will offer both the MA and PhD degrees. Initially, the program will recruit an estimated four to six students per year with an ultimate goal of about 15 new students per year.

The main contribution of the Department of Political Science and International Relations will be our course POSC 656 (The Politics of Disaster), taught by Professor Rick Sylves, which will serve as one of the core courses for the program. Professor Sylves typically teaches the course once each year (co-taught with POSC 456) and will be delighted to include the DSAM students in his class.

We look forward to working with you on this new and exciting program.

Sincerely,

A handwritten signature in cursive script that reads "Gretchen".

Gretchen Bauer

Professor and Chair






COLLEGE OF HUMAN SERVICES, EDUCATION & PUBLIC POLICY

SCHOOL OF EDUCATION

Willard Hall  
University of Delaware  
Newark, Delaware 19716-2922  
Ph: 302/831-2573  
Fax: 302/831-4110

January 14, 2009

TO: Sue McNeill, Professor and Director  
Disaster Research Center

FROM: Kathleen Minke, Acting Director   
School of Education

RE: Proposed degree in Disaster Science and Management

I am writing to convey the support of the School of Education for the proposed graduate program in Disaster Science and Management. We are pleased to welcome students from this program into two of our graduate level research and statistics courses, EDUC 665 and EDUC 850. Please note that only one section of EDUC 850 will be appropriate for these students; it is the section taken by Ed.D. students and does not have a co-requisite. The faculty members teaching these courses agree that the courses should be open to the students in the proposed degree program.

We look forward to collaborating with faculty in this innovative interdisciplinary program.



SCHOOL OF URBAN AFFAIRS  
AND PUBLIC POLICY

Graham Hall  
University of Delaware  
Newark, Delaware 19716-7310  
Ph: 302/831-1687  
Fax: 302/831-3587  
E-mail: SUAPP@UDEL.EDU  
Internet: www.udel.edu/suapp

October 25, 2007

TO: Sue McNeil, Professor and Director  
Disaster Research Center

FROM: *Maria Aristigueta*  
Maria Aristigueta, Director  
School of Urban Affairs and Public Policy

SUBJECT: Proposed Graduate Program Support

This memo is to convey the support of the School of Urban Affairs and Public Policy for the proposed graduate program in Disaster Science and Management.

This proposed interdisciplinary program certainly has a place in graduate education, and the need for professionals in this area is obvious given the recent disasters both in the U.S. and other countries throughout the world.

We feel that faculty from the School of Urban Affairs and Public Policy can make a significant contribution in helping students obtain the knowledge and skills needed to complete this interdisciplinary program. The School also supports having UAPP 819 – Management Decision Making – included in the core program for Master's students.

We look forward to further development of the program and collaboration between our disciplines.



SCHOOL OF URBAN AFFAIRS  
AND PUBLIC POLICY

Graham Hall  
University of Delaware  
Newark, Delaware 19716-7310  
Ph: 302/831-1687  
Fax: 302/831-3296  
E-mail: SUAPP@UDEL.EDU  
Internet: www.udel.edu/suapp

To: Sue Mc Neil, Director, Disaster Research Center  
From: *Maria Aristigueta*  
Maria Aristigueta, Director, School of Urban Affairs & Public Policy  
Re: Proposed Master of Science in Disaster Science and Management  
Date: January 13, 2009

I am writing to state the strong support of the SUAPP faculty for the Master of Science degree in Disaster Science and Management as described in the proposal. The faculty as a whole has reviewed the proposal and voted unanimously to serve as the academic home for the degree program. The faculty is also in favor of the changes to utilizing methods courses already available through programs in CHEP. The program will serve as a nice complement to our MPA and MA degrees, and the students graduating from the proposed Public Policy and existing Leadership undergraduate programs might well be interested in pursuing the MS Disaster Science and Management.

The proposed interdisciplinary program is timely, given the repercussions of recent disasters both in the U.S. and in countries throughout the world. We believe that faculty from our department can make a significant contribution advising students who are interested in the science and management of disasters.

We are particularly supportive of this program because of the opportunity it provides to collaborate with the Center for Disaster Research other units. The integrative model of teaching, research, and service is paramount to the mission of the School.

Thank you for the opportunity to collaborate and serve as the academic home for this exciting program. We look forward to participating in its success.



Disaster Research Center  
Newark, Delaware 19716-2581  
Ph: 302/831-6618  
Fax: 302/831-2091  
www.udel.edu/DRC

Director  
Sue McNeil  
Core Faculty  
Benigno E. Aguirre  
Rachel A. Davidson  
Earl (Rusty) Lee, II  
Joanne M. Nigg  
Havidán Rodríguez  
Tricia Wachtendorf  
Founding Directors  
Russell R. Dynes  
E.L. Quarantelli

November 14, 2008

Faculty Senate

Graduate Program Committee

The core faculty of the Disaster Research Center (DRC) enthusiastically support the proposed interdisciplinary graduate program in Disaster Science and Management. Four core faculty, Benigno Aguirre, Sue McNeil (chair) Joanne Nigg and Havidán Rodríguez, have participated in the committee that developed the program. The proposed program formalizes the interdisciplinary graduate education that has been occurring at DRC, responds to the growing demands for professionals and academicians in this field, and is consistent with the DRC's commitment to interdisciplinary and multidisciplinary research.

Of course, the involvement of the DRC core faculty in the proposed program is subject to negotiation of new or redistributed resources as each core faculty member has ongoing teaching and research commitments. We see our involvement in the proposed program through four mechanisms:

- Teaching – The proposed new courses could be taught by several of our core faculty. Our existing courses also serve as electives.
- Advising – We anticipate serving as academic advisors as well as thesis and dissertation advisors and committee members for the graduate students in the program.
- Graduate student support – Some of our ongoing and proposed research projects will provide support for graduate students in the program.
- Administration – The governance structure outlined in the proposal uses faculty committees to administer the program. We envisage playing active roles on these committees.

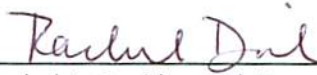
The proposed program complements our existing education programs and research activities, meets the needs for faculty and professionals in this rapidly growing area, builds on the foundation DRC has as the premier social science research center in disasters and emergency management, and reinforces our commitment to the transition to an interdisciplinary center. We look forward to being a part of this exciting new opportunity.

DRC Core Faculty



---

Benigno E. Aguirre, Ph.D.  
Professor, Sociology and Criminal Justice  
Core Faculty, Disaster Research Center



---

Rachel A. Davidson, Ph.D.  
Associate Professor, Civil and Environmental Engineering  
Core Faculty, Disaster Research Center



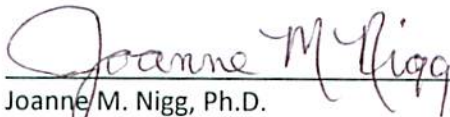
---

Earl Lee, Ph.D.  
Assistant Professor, Civil and Environmental Engineering  
Core Faculty, Disaster Research Center



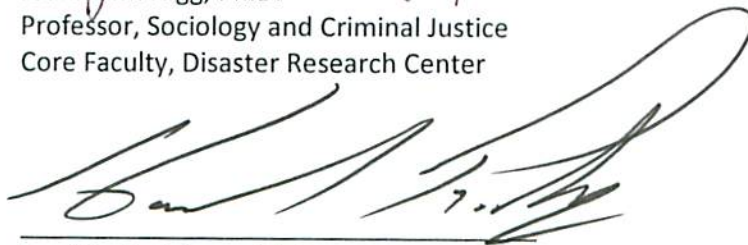
---

Sue McNeil, Ph.D., P.E.  
Director, Disaster Research Center  
Professor, Civil and Environmental Engineering



---

Joanne M. Nigg, Ph.D.  
Professor, Sociology and Criminal Justice  
Core Faculty, Disaster Research Center



---

Havidán Rodríguez, Ph.D.  
Vice-Provost for Academic Affairs & International Programs  
Professor, Sociology and Criminal Justice  
Core Faculty, Disaster Research Center



---

Tricia Wachtendorf, Ph.D.  
Assistant Professor, Sociology and Criminal Justice  
Associate Director, Disaster Research Center

*E. Selected Sample Curricula*

*F. Potential Affiliated Faculty*

<b>Department</b>	<b>Faculty member</b>	<b>Rank</b>
Animal and Food Sciences	Jack Gelb	Professor
Animal and Food Sciences	Kali Kniel	Assistant Professor
Anthropology	Carla Guerron-Montero	Assistant Professor
Anthropology	Karen Rosenberg	Professor
Anthropology	Patricia Sloane-White	Professor
Art Conservation	Debbie Norris	Professor
Bioresources Engineering	Eric Benson	Assistant Professor
Bioresources Engineering	Shreeram Inamdar	Assistant Professor
Bioresources Engineering	William Ritter	Professor
CADSR	Ed Ratledge	Associate Professor
Center for Disability Studies	Michael Gamel-McCormick	Professor
Center for Energy and Environmental Policy	John Byrne	Professor
Civil Engineering	Nii Attoh-Okine	Associate Professor
Civil Engineering	Rachel Davidson	Associate Professor
Civil Engineering	Earl (Rusty) Lee	Assistant Professor
Civil Engineering	Sue McNeil	Professor
Communications	Elizabeth Perse	Professor
Economics	Burt Abrams	Professor
English	Deborah Alvarez	Assistant Professor
Entomology & Wildlife Ecology	Doug Tallamy	Professor
Entomology & Wildlife Ecology	Jack Gingrich	Research Scientist
Food and Resource Economics	John MacKenzie	Associate Professor
Food and Resource Economics	Josh Duke	Associate Professor
Food and Resource Economics	Titus Awokuse	Associate Professor
Food and Resource Economics	Tom Ilvento	Professor
Geography	Tracy DeLiberty	Associate Professor
Geography	Karen Tomic	Supplemental Faculty
Geography	Dan Leathers	Professor
Health Sciences	Jim Richards	Professor
History	Arwen Palmer Mohun	Associate Professor
HRIM	Fred DeMicco	Professor
IFS	Barbara Settles	Professor
Marine Policy	James Corbett	Associate Professor
Marine Studies and Earth Sciences	Nancy Targett	Professor
Nursing	Bethany Hall-Long	Associate Professor
Plant and Soil Sciences	Donald Sparks	Professor
Plant and Soil Sciences	Eric Wommack	Associate Professor
Plant and Soil Sciences	Jeff Fuhrmann	Professor

Plant and Soil Sciences	Tom Sims	Professor
Plant and Soil Sciences	Yan Jin	Professor
Political Science	Dan Green	Associate Professor
Political Science	Muqtedar Khan	Associate Professor
Political Science	Stuart Kaufman	Professor
Political Science	Rick Sylves	Professor
Sociology	Eric Rise	Professor
Sociology/DRC	Benigno Aguirre	Professor
Sociology/DRC	Joanne Nigg	Professor
Sociology/DRC	Havidan Rodriguez	Professor
Sociology/DRC	Tricia Wachtendorf	Assistant Professor
Urban Affairs	Young-Doo Wang	Professor
Urban Planning	David Ames	Professor
Urban Affairs	Jeff Raffel	Professor

All faculty listed have PhDs and are full-time regular faculty.