

Date: 6 APRIL 2013

To: Dr. Anne Kugler
Chair, Faculty Council
John Carroll University

C.C.: Dr. Barbara D'Ambrosia
Chair, Committee on Academic Policies
John Carroll University

Subject: Proposal for New Academic Minor

PROPOSAL FOR THE ACADEMIC MINOR IN CRISIS-MAPPING

Crisis-Mapping:

Crisis mapping uses crowd-sourcing, mobile platforms, and other geospatial technologies and new media to develop resources for policy analysis and practical problem-solving at local, regional, and global scales.

Students in the CM minor will develop the knowledge and skills to identify, define and understand socio-economic, humanitarian, environmental, public health, and other public policy problems at local and global scales, in order to create responsible and sustainable solutions to those problems.

I. CONTEXT and RATIONALE FOR ADDITION OF NEW PROGRAM

Background:

Crisis-mapping is an emergent field of practice and scholarship. Professor Jen Ziemke (PO) is co-founder of the International Network of Crisis Mappers. Under her leadership JCU hosted the first International Conference of Crisis Mappers (ICCM) in Fall 2009.

ICCM has grown larger and more influential since then, and Dr. Ziemke has continued to play a leading role in organizing it. The 2010 ICCM was held in Cambridge, MA and the 2011 meeting was held in Geneva, Switzerland.

JCU was a sponsor of the 2011 Geneva meeting and sent a faculty delegation to the conference to learn more about the crisis-mapping field. The delegation was led by Dr. Jeanne Coleran (CAS Dean) and included Drs. Peggy Finucane (CO/CSSA), Dan Palmer (CS), and Mindy Peden (PO).

As of February 2012, the International Network of Crisis Mappers had over 5,000 members in 162 countries. The Fall 2012 meeting in Washington D.C. brought over 400 participants to the World Bank, the meeting's locale. A small group of JCU students and young alumni assisted Dr. Ziemke at the meeting and faculty attendees included

Drs. Dan Palmer (CS) and Pam Mason (PO). The Fifth Annual ICCM, to be held at the UN International Center in Nairobi, Kenya, is planned for Fall 2013.

JCU student interest in crisis-mapping has grown since the 2009 ICCM, held on the JCU campus, and even more since Dr. Ziemke first began offering "Crisis Mapping, New Media & Politics" (PO 397) in Spring 2011. Student comments on Crisis Mapping course evaluations suggest that the material is relevant and important to them. For example:

- "... interesting topics that I never would have explored otherwise."
- "Lots of opportunities to do hands-on learning."
- "...the most important/relevant class I have had..."
- "There was informative, in-depth discussion."
- "[Dr. Ziemke] is an expert in the field and had new & relevant material to go over in class."
- "I've learned a great deal and learning about the up-and-coming technology was very stimulating."
- "this course explored and explained topics I never would have found on my own."

To date, Dr. Ziemke's PO 397 is the only undergraduate course on crisis mapping offered in the US, and the proposed CM minor is the only undergraduate curriculum that we know of in the US.

In Summer 2011, the College of Arts & Sciences was awarded a grant from the McGregor Fund to support, among other things, establishment of a curriculum centered upon Crisis Mapping and envisioned as a CM minor.

A working group including Professors Jen Ziemke (PO), Dan Palmer (MT/CS), Peggy Finucane (CO/CSSA), Mindy Peden (PO), Rich Clark (SC/PJHR), Pam Mason (PO), Lauren Bowen (AVP Office), Walter Simmons (EC), and Jeanne Colleran (CAS) met approximately monthly between December 2011 and January 2013 to discuss issues related to the prospective CM curriculum. The proposed Academic Minor in Crisis Mapping reflects those and other conversations.

Justification: Why a CM Minor?

An academic minor is a declared secondary field of undergraduate study. According to the "major/minor" system invented at Harvard University in 1910, the minor is subordinate to the major or primary field of undergraduate study. Sometimes there is considerable overlap between the major and minor, sometimes not.

- Some students use the minor to deepen their learning in the academic major.
- Some students use the minor to pursue personal interests.

- Other students may use the minor to provide specific specialization or preparation for employment or postgraduate programs.
- Interdisciplinary minors can provide students with ways to link two or more disciplines.

The CM minor may serve one or more of those purposes for students who choose to declare it. Declaring the minor tells prospective employers, post-graduate program selection committees, and whoever else reads the transcript, about the student's preparation in CM and knowledge and skills developed in the minor.

Contributions to the student experience:

CM is current and topical. The CM curriculum connects knowledge acquisition and skills development both inside and outside the classroom. Through the CM minor, students become producers of knowledge that they can then bring to bear in the solution of real-world problems.

Articulation of ways CM complements existing programs: The minor in Crisis Mapping is open to students in all majors. It can complement the programs of students in any major, in both CAS and the Boler School, through (1) strengthening and integrating student knowledge and skills in spatial analysis and mapping; (2) integrating classroom and field learning through problem-based projects.

Ways in which proposed program strengthens academic mission: JCU inspires individuals to excel in learning, leadership, and service in the region and in the world.

Students in the CM minor will develop the knowledge and skills to identify, define and understand socio-economic, humanitarian, environmental, public health, and other public policy problems at local and global scales, in order to create responsible and sustainable solutions to those problems. The CM minor introduces students to practical ways that their learning can be of service to people in the region and in the world.

Prevalence of program at similar institutions: The proposed CM minor at JCU is an innovative program; the first undergraduate curriculum of its kind in the US.

II. CURRICULAR REQUIREMENTS

For the most part, courses that will comprise the CM minor are already part of the JCU curriculum.

Most minors at JCU are 18-24 credits. The CM minor is a 21-credit course of study:

1. MT 122 (statistics) (3)
2. Geography (3) Currently PO 297 (Special Topics: Political Geography)
3. Introduction to Social Science Methods/research design (3)
4. Geographic Information Systems (GIS) (3)
5. Introduction to Crisis Mapping (3) (PO 397)
6. Cognate course in a discipline not in the student's major (3)
7. Capstone project/internship/field experience in CM (3)

Rationale and Justification of Inclusion of Courses:

- 1. MT 122 (3): Statistics.** This course imparts important skills relevant to data understanding and analysis. It is part of the regular curriculum in MT, counts for Division IV credit in the university core, and is also required or recommended by a number of undergraduate programs.
- 2. Geography (3):** Currently, and on an ongoing basis per Dr. Dwight Hahn, PO Chair, PO 297 (Special Topics: Political Geography) is being taught on a per-course basis by visitor Dr. Jason Davis (Ph.D., Ohio State). "PO 297 is an introduction to political geography and examines material that is critical for spatial analysis. Political geography studies the relationships between power, decision-making, and places. The first half of the class explores some of the basic concepts employed by political geographers, including ideas of Power, Scale, Migration, and Territory. The second half of the course examines different geo-political viewpoints and their genealogies. During the course, students develop skills in observing human territorial behavior and developing maps that convey their (the mapmakers') intentions" (PO 297 syllabus).
- 3. Introduction to Social Science Methods/research design:** CM students need to learn research design skills, including how to isolate research questions; and they must know how to interpret and reason with quantitative data within particular contexts. Through completion of this course, they will achieve those learning goals. Any social sciences research methods course that emphasizes these skills can serve the purposes of this requirement. For purposes of example, such a course has been approved by the Department of Political Science as a required, 200-level course in the PO major and open to all majors. The course will be developed over Spring 2013 and Fall 2014 and will be taught every year, beginning in 2014.
- 4. Geographic Information Systems (GIS) (3):** PO 2XX, A 200-level course to be developed by Dr. Colin Swearingen (PO) during Summer 2013, with a McGregor course development grant. This course will equip undergraduates with mapping skills. It will be taught regularly in the Department of Political Science.
- 5. Introduction to Crisis Mapping (3):** PO 397, "Crisis Mapping, New Media & Politics," Dr. Jen Ziemke. This course has been taught three times since Spring 2011 and will be offered regularly. It will have a permanent course number in the new Undergraduate Bulletin.
- 6. Cognate course in a discipline not in the student's major discipline (3).** This could be a 200-level or 300-level course. For example, a CS major might take African Philosophy (PL 285) to prepare for the Uganda immersion and the CM capstone project. This requirement is meant to deepen students' understanding and connect domains of learning. For another example, a religious studies major or economics major might take the 200-level course being developed under the auspices of the McGregor course development program by Brendan Foreman (MT), "Introduction to Network Analysis in Globalization Studies," to hone analytical skills relevant to CM-related development studies. Cognate courses can be found across the entire JCU curriculum.

- 7. Capstone project/internship/field experience in CM (3):** The capstone is connected with an immersion or other field experience and includes one or more crisis-mapping tasks that fulfill a real, identified need by an external non-profit agency or organization.

Speculative Note: Mapping and data analysis skills are high-demand skills. The field dimension of the CM minor could be entrepreneurially “bumped out” in very interesting ways -- for example, JCU crisis mappers could organize as an n.g.o. that provides crucial spatial information and analysis to local and area non-profits.

Prerequisites and Sequencing of Courses:

No prerequisites to enroll in the minor.

Rough sequence of courses:

- First: statistics, geography, basic methods/research design, and GIS. Statistics is a 100-level course and the others are all envisioned as 200-level courses.
- Next: Crisis Mapping, New Media & Politics. This is a 300-level course.
- Next, the cognate course (this could also be taken at the same time as Crisis Mapping, New Media & Politics) at the 200- or 300-level.
- Last: the capstone project. Until numbers of students enrolled in the minor reaches a critical mass, the capstone project will be administered as an independent study.

Courses in Development/Timetable for Development:

- Dr. Colin Swearingen (PO), Introduction to GIS, McGregor-supported course development project, summer 2013. Course to be taught beginning during AY 2013-2014. Dr. Swearingen will participate in the 2013 CSSA immersion to Honduras in order to develop mapping exercises for students on future Honduras immersion programs.
- Uganda immersion, summer 2013 (CSSA). The 2013 Uganda immersion will run as a pilot program in summer 2013, led by Dr. Ziemke and developed by her in collaboration with Mr. Ted Steiner (CSSA) and crisis-mapping related organizations in Uganda.
- Honduras immersion planning, summer 2013 (CSSA). Dr. Colin Swearingen (PO) will participate in the CSSA Honduras immersion and use the experience to develop an on-going GIS/mapping dimension to the immersion program.

Note: Participation in the Uganda or Honduras immersion can serve as the foundation for the capstone project, but it is likely that a number of CM capstone projects will be local or regional, at least in origin. Local sites/projects have yet to be developed.

Mechanism for approving required cognate courses for the program: The CM Director, with the advice of the CM steering committee, considers petitions to approve the student's cognate course. Advising students in the minor on appropriate cognate courses is an important part of the CM director's CM advising work.

III. ORGANIZATION AND ADMINISTRATION OF THE CRISIS MAPPING MINOR

Core faculty:

- Dr. Jen Ziemke (PO): Crisis Mapping, New Media & Politics (PO 397), plus special topics courses.
- Dr. Dan Palmer (CS): crowdsourcing, other relevant CS courses need course numbers.
- Dr. Colin Swearingen (PO): GIS (PO 2XX).

Additional faculty:

- Dr. Marc Kirschenbaum (MT)
- Dr. Linda Seiter (CS)
- Geographer -- at present, visitor Dr. Jason Davis teaches PO 297, "Introduction to Political Geography." The History Department geography course (HS 271, "World Geography") is a support course for education majors only and is not appropriate for CM.
- Additional faculty and courses in cognate disciplines

Appointment of Director: director appointment process should follow department chair succession process.

Job description for Director: The Director of the CM minor oversees administration of minor. Responsibilities:

- advises and keeps track of students in the minor
- keeps program records and
- administers program assessment
- serves as instructor of record for capstone projects
- supervises the CM budget
- collaborates with colleagues in CSSA, academic departments and programs, and Campus Ministry to develop crisis-mapping dimension to immersion trips
- encourages faculty involvement and faculty development in the Minor and in the evolving CM field
- works with CAS to develop external partnerships
- organizes co-curricular offerings as part of program
- publicizes the program on campus and works with University Advancement to market the minor externally.

Administrative Support: Administrative support for CM will be provided by the Office of Interdisciplinary Programs (OIP), staffed by Ms. Ellen Valentine (evalentine@jcu.edu, oip@jcu.edu, x.6647). In addition, one 10-hour per week student assistant is assigned to OIP.

As of April 9, 2013, Ellen's status has been changed from part-time, 20 hours per week, to full-time on a ten-month basis, with annual hiatus period from mid-May (end of final exam week) to mid-July.

Not including CM, the following programs are supported by OIP: East Asian Studies (major, minor, and co-curriculum); the Program in Peace, Justice & Human Rights (major, minor, and co-curriculum); Women's and Gender Studies (major, minor, and co-curriculum), and the Master's Program in Humanities.

Recommended line of reporting: CM director to CAS Dean

Structure of governance:

Director convenes CM steering committee. CM steering committee to include participating academic department/program faculty representatives, CSSA, and CAS dean/associate dean.

IV. IMPLEMENTATION TIMETABLE

Semester Zero: SP 2013: Crisis Mapping minor proposal complete and submitted to CAP and the UBC. Pam Mason is on the UBC calendar for its April 23rd meeting.

Note: Once it is approved, the CM minor will be ready to implement. Except for the senior capstone, courses required by the proposed minor already are or are currently (summer 2013) being developed as regular course offerings within the College of Arts and Sciences.

1. MT 122 is taught every semester.
2. Political Geography (PO 297) will be taught every year.
3. Introductory social science research design courses are offered in various departments, including psychology, sociology, and political science.
4. At present, Crisis Mapping, New Media & Politics (PO 397) is taught regularly, at least every 3 semesters. Upon approval of the minor, it will likely be offered once a year, depending upon demand.
5. GIS will be taught regularly, probably once every 3 semesters, depending upon demand, beginning AY 2013-14.
6. Cognate courses exist through the CAS curriculum.
7. Until numbers of students enrolled in the minor reaches a critical mass, the capstone project will be administered as an independent study.

Year One: AY 2013-14: Implement the Minor

- all courses except the capstone in place

Year Two: AY 2014-15: Continued implementation of the Minor

- capstone course in place

Year Three: AY 2015-16: Continued implementation of the Minor and Program Review

- full curriculum implemented
- program review in spring 2016 (end of Year Three)

Learning Goals at the Program Level:

1. Develop basic competence in statistics, to be able to interpret and analyze data, and apply statistical methods in practical problem-solving.
2. Through coursework in the minor, comprehend at least one CM tool/technology and be able to explain to others how it works.
3. Become proficient at using this CM tool/technology.
4. Identify problems for which CM problem-solving tools are appropriate and inappropriate.
5. Apply acquired CM knowledge and skills in a new, unrehearsed situation to identify or solve a problem.
6. Synthesize CM-minor knowledge and skills with knowledge and skills developed in the academic major.

Learning Goals at the Course Level: See chart, next page.

Course	MT 122	Political Geography	Research Design	Intro to GIS	Intro to Crisis-Mapping	Cognate Course not in major	Capstone
LG 1: develop basic competence in statistics, be able to interpret and analyze data, and apply statistical methods in practical problem-solving	X		X				
LG 2: through coursework, comprehend one CM tool/technology and be able to explain to others how it works.	X	X		X	X		
LG 3: become proficient at using this (LG 2) CM technology/tool.		X		X	X		
LG 4: identify problems for which CM tools are appropriate/inappropriate Intro to CM	X	X			X	X	X
LG 5: apply acquired CM knowledge and skills in a new, unrehearsed situation to identify or solve a problem.							X
LG 6: synthesize CM-minor knowledge and skills with knowledge and skills developed in the academic major						X	X

Program Evaluation and Review:

Formative and summative program evaluation through analysis of course syllabi; course evaluations; student portfolios; student exit interviews; site visits by qualified external reviewers.

Likely Program Outcomes:

- Emergence of a cohort of students with strong spatial analysis skills, relevant practical experience, and ability to think across disciplines.
- similar emergence of cohort of faculty with strong spatial analysis skills, relevant research and teaching interests, and ability and inclination to think across disciplines.
- We believe that the CM minor will help make our graduates attractive to prospective employers.
- Strengthened ties between the social sciences and MT/CS
- Foregrounding of STEM disciplines in the liberal arts curriculum

Key indicators of program success:

- **Track year over year changes:**
 - number of students enrolled in the minor (institutional data)
 - number of students enrolled in CM-specific courses (institutional data)
 - number of departments offering courses counted for the minor (institutional data)
 - number of faculty offering courses that count for the minor (self-report and institutional data)
- **Course evaluations**
- **Indicators of student success:**
 - self-reported feelings of satisfaction/dissatisfaction with minor (survey, interview)
 - student achievement and participation in relevant activities (self-report; institutional data)
 - track graduates to learn if their employment or further education/training reflects the minor in CM (student self-report; annual survey)

Anticipated number of CM Minors: 10 declarations per year, by the end of the 3-year run-up period, with up to 20 students (juniors and seniors) in the Minor at any given time.

Marketing and Communications Tactics (per John Carfagno)

- John Carroll Magazine cover story, Fall 2012
- Crisis Mapping minor web micro-site (search engine optimized with CM keywords)
- Promotional graphics on JCU homepage, CAS homepage, Political Science homepage
- Crisis Mapping minor brochure

- Social media promotions on JCU Facebook and Twitter pages
- Crisis Mapping promoted in Enrollment materials
- News release/Crisis Mapping media pitch

- Active promotion by JCU Admissions office, for example at the April 6th, 2013 event for accepted students and their families. On-going active participation by Dr Jen Ziemke in Admissions-related events, 2013. (per Mr. Brian Williams, VP for Enrollment Services)

V. BUDGET

Budget review with Mr. David Wong, Director of Academic Finance, March and April, 2013. University Budget Committee Review April 23, 2013.

VI. LETTERS OF SUPPORT

- Chair of PO: to follow under separate cover
- Chair of MT/CS: to follow under separate cover
- Assistant Provost for Institutional Effectiveness: to follow under separate cover
- Dean of CAS: to follow under separate cover
- Associate Academic Vice President: to follow under separate cover