George Mason University
Graduate Course Approval/Inventory Form

Please complete this form and attach a copy of the syllabus for new courses. Forward it as an email attachment to the Secretary of the Graduate Council. A printed copy of the form with signatures should be brought to the Graduate Council Meeting. Complete the Coordinator Form on page 2, if changes in this course will affect other units.

Please indicate:  __X__ NEW  ____ MODIFY  ____ DELETE

Local Unit: CSS  Graduate Council Approval Date:

Course Abbreviation: CSS  Number: 692

Full Course Title: SOCIAL NETWORK ANALYSIS

Abbreviated Course Title (24 characters max.): SOC NET ANALYSIS

Credit hours:  3:3:0  Program of Record: CSS

Repeatable for Credit?

D=Yes, not within same term  Up to  hours

T=Yes, within the same term  Up to  hours

X=Cannot be repeated for credit

Activity Code (please indicate):  _X_ Lecture (LEC)  ____ Lab (LAB)  ____ Recitation (RCT)

___ Studio (STU)  ___ Internship (INT)  ___ Independent Study (IND)  _X_ Seminar (SEM)

Catalog Credit Format  3:3:0  Course Level: GF(500-600)  ____  GA(700+)

Maximum Enrollment: 20

For NEW courses, first term to be offered: Fall 2004

Prerequisites: CSS 600

Catalog Description (35 words or less)  Please use catalog format and attach a copy of the syllabus for new courses:

Methods and applications that examine complex social systems based on relations, structures, connectivity, matrix representations, location, roles, interactions and other network properties. Applications to terrorism, cognition, organizations, and other social phenomena.

For MODIFIED or DELETED courses as appropriate:
Last term offered:  Previous Course Abbreviation:  Previous number:

Description of modification:

APPROVAL SIGNATURES:
Submitted by:  _Prof. Claudio Cioffi-Revilla_ email: _ccioffi@gmu.edu

Department/Program:  _Center for Social Complexity_ Date: ___2/3/2004___

College Committee:  ___________________________ Date: __________________
Course Name and Number: CSS 692 (3:3:0) Social Network Analysis

Catalog Description: Methods and applications that examine complex social systems based on relations, structures, connectivity, matrix representations, location, roles, interactions and other network properties. Applications to terrorism, cognition, organizations, and other social phenomena.

Learning objectives: To understand a basic formal graph-theoretic model; to be able to identify empirical social networks susceptible to network modeling; to apply network modeling methods to specific networks of social relations in one or more domains of social science; to understand the potential and limitations of social network analysis.

Syllabus topics
Elements of graph theory
Class of graphs and networks
Early graph models in the social sciences
Current applications
Survey of graph-theoretic models in the social sciences
  Anthropology
  Economics
  Sociology
  Social psychology
  Linguistics
  Political science
Model identification
Parameter estimation
Simulation methods
Sensitivity analysis
Development
Relation to object-oriented models

Students are expected to construct and analyze a network model in their chose area of social science interest.

Readings and resources (Wasserman & Faust is the main textbook):