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: 630

Full Course Title: COMPARATIVE COMPUTATIONAL SOCIAL SCIENCE

Abbreviated Course Title (24 characters max.): COMPRATIV COMPUT SOC SCI

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

Repeateable for Credit?

____ D=Yes, not within same term  Up to  hours

____ T=Yes, within the same term  Up to  hours

____ N=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)  ____ X__  GA(700+)

Maximum Enrollment:  20  For NEW courses, first term to be offered: Fall 2006+

Prerequisites: CSS 600

Catalog Description (35 words or less)  Please use catalog format and attach a copy of the syllabus for new courses: Application of the comparative method for analyzing different types of computational models in the social sciences. Strong cross-domain and interdisciplinary emphasis, akin to comparative economic systems, comparative government, or comparative linguistics.

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:  ______________________

Graduate Council Representative:  ______________________ Date:  ______________________
Course Name and Number: CSS 630 (3:3:0) Comparative Computational Social Science

Catalog Description: Application of the comparative method for analyzing different types of computational models in the social sciences. Strong cross-domain and interdisciplinary emphasis, akin to comparative economic systems, comparative government, or comparative linguistics. Pre-requisites: CSS 600 Introduction to Computational Social Science. In addition, CSS 605 or equivalent is helpful.

Proposed Course Content:

Week 1-3: Introduction and survey of classes of computational social science models. Emphasis on agent-based models.

Week 4-5: Epistemology of comparative computational social science models. Theoretical validity and empirical validation. Equation-based and object-based models.

Week 6: Computational linguistics.

Week 7: Computational anthropology.

Week 8: Computational sociology.

Week 9: Computational politics.

Week 10: Computational social psychology.

Week 11: Agent-based computational economics.

Week 12: Spatial models.

Week 13: Interdisciplinary comparative analysis I

Week 14: Interdisciplinary comparative analysis II. Concluding session.

Readings and Reference Materials:
Special Issue of the Journal of Artificial Societies and Social Simulation, David Hales, Juliette Rouchier and Bruce Edmonds, eds., vol. 6, no. 4. http://jasss.soc.surrey.ac.uk/6/4/contents.html
Selected readings in comparative computational social science from the course bibliography.