



Interdisciplinary  
Studies

# COMPUTATIONAL SOCIAL SCIENCE

*Merging social science with computer programming and modeling*

## Program Highlights

Computational Social Science (CSS) is an interdisciplinary field in which current social science questions are investigated with modern computational tools. Mason's program was the first CSS MA in the world and continues to advance the study of social science through computational methods (e.g., agent-based modeling, social network analysis, and big data).

While some computer knowledge is useful, students in the CSS program are not expected to be programmers. A background in one of the social sciences, computer science, or engineering and undergraduate courses in these and related areas are preferred.

Besides taking introductory classes in theories and practices of social, geo-social, economic, and network modeling, you will have the opportunity to work one-on-one with faculty on your project or thesis of interest.

Graduates have gone on to pursue doctorates at Mason and top research universities. Others have pursued careers in government or the private sector, in organizations such as:

- the U.S. Army
- MapR Technologies
- CACI
- Logistics Management Institute
- DARPA
- Ninja Analytics, Inc.

For the most up-to-date application and degree requirements visit:

**[mais.gmu.edu/programs/la-mais-isin-css](https://mais.gmu.edu/programs/la-mais-isin-css)**

**website: [mais.gmu.edu](https://mais.gmu.edu)**  
**email: [mais@gmu.edu](mailto:mais@gmu.edu)**

## Degree Requirements - 36 Total Credits

**CSS 600** Introduction to Computational Social Science - 3 Credits

**CSS 605** Object-Oriented Modeling in Social Science - 3 Credits

**CSS 610** Agent-based Modeling and Simulation - 3 Credits

**Core Electives** - 9 Credits

- The electives, chosen from a list, provide an understanding of the technical foundations and current work in at least two subfields of computational social science.

**Research Course** - 3 Credits

**Electives** - 9-12 Credits

- Electives credits are chosen from any Mason master's-level courses in computational social science, social science, computer science, computational science and informatics, statistics, or other quantitative methods.

**MAIS 793** Integrated Learning Experience- 3 Credits

**Capstone Project or Thesis (Optional)** - 3 Credits

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## How to Apply

Along with the completed Application for Graduate Admission and application fee, applicants should submit:

- Official transcripts from previous institutions of higher education attended
- Goals statement
- Two letters of recommendation
- Resume
- Formal writing sample of at least 1,000 words

See [chss.gmu.edu/admissions](https://chss.gmu.edu/admissions) for complete details on the application process.

## MAIS: Design Your Own Degree

The Interdisciplinary Studies (MAIS) program in the College of Humanities & Social Sciences consists of multiple established degree paths that exist in partnership with academic units and faculty across the University. It offers a home for students with broad academic interests who seek a master's degree to help them to create a better world. While their degree paths may vary dramatically, our students share a desire to address critical problems facing the world today.

### Available Degree Paths

Computational Social Science  
Energy and Sustainability  
Individualized Studies  
Religious Studies  
Social Entrepreneurship  
Social Justice and Human Rights  
War and the Military in Society  
Women and Gender Studies