

# DEPARTMENT OF COMPUTATIONAL AND DATA SCIENCES

## Karen Underwood, Academic Programs Administrator

Phone: 703-993-9298  
 Email: cds@gmu.edu  
 Website: cds.gmu.edu

## Administration

- Jason Kinser, Chair
- Eduardo Lopez, Graduate Coordinator CSI, COMP, Data Science Certificate
- Andrew Crooks, Graduate Coordinator CSS
- Joseph Marr, Undergraduate Coordinator

The mission of the Department of Computational and Data Sciences (CDS) is comprised of two objectives:

The first is the systematic development and application of computational techniques for modeling and simulation of scientific and social phenomena or social processes.

The second objective is the systematic development and application of techniques for mining, managing, and analyzing large sets of data.

The resulting interdisciplinary approach leads to understanding, interpretation, and prediction of phenomena that traditional theory or experiment cannot provide alone. CDS's mission aims toward excellence in faculty and graduate student state-of-the-art research activities, as well as providing modern approaches to student education at both the graduate and undergraduate levels. The educational and research directions pursued in CDS are focused to reflect the interests of neighboring federal laboratories, scientific institutions, and high-technology firms to provide the students opportunities for continued or new employment. Graduate courses are also designed to accommodate part-time students, with most courses meeting once a week in the late afternoon or early evening.

The research and teaching activities associated with CDS's programs are a reflection of the present central role of computation in the arenas of "big data" and of modeling and simulation.

## Undergraduate Programs

This department offers the Computational and Data Sciences, BS and the Computational and Data Sciences Minor. An accelerated master's option is also available for undergraduate students interested in the Computational Science, MS.

Many opportunities exist for undergraduate students to get involved with research. Students should consult with faculty working on research topics of interest to them based on their exploration of the departmental website.

## Graduate Programs

This department offers the Data Science Graduate Certificate, the Computational Social Science Graduate Certificate, the Computational Science, MS, the Computational Sciences and Informatics, PhD, and the Computational Social Science, PhD. An accelerated master's option is also available for undergraduate students interested in the Computational Science, MS. The department

also supports the Computational Social Science Concentration in the Interdisciplinary Studies, MAIS. These graduate programs are strongly supported by the extensive research activities of the faculty, including their collaborations with scientists and engineers at regional government laboratories.

## Faculty

### Department Faculty Professors

Blaisten-Barojas, Cioffi-Revilla

### Associate Professors

Crooks, Kennedy, Kinser, Marr

### Assistant Professors

Eagle, Glasbrenner, Lopez, Lyver, Tian

### Affiliated Faculty

Dade, Griva, Klimov, Tryfona

### Emeritus Professor

Papconstantopoulos

### Adjunct Faculty

Ken Comer, Kevin Comer, Cruz, Miller, Patrick, Romanelli, Scott, Shaheen, Sponseller, Verma, Watson

## Programs

- Computational Science, MS
- Computational Sciences and Informatics, PhD
- Computational Social Science Graduate Certificate
- Computational Social Science, PhD
- Computational and Data Sciences Minor
- Computational and Data Sciences, BS
- Data Science Graduate Certificate
- Government Analytics Minor (COS)

The Department of Computational and Data Sciences also supports the Computational Social Science Concentration in the Interdisciplinary Studies, MAIS.