DEPARTMENT OF COMPUTATIONAL AND DATA SCIENCES

Academic Programs Administrator

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Administration

- Jason Kinser, Chair
- Eduardo Lopez, Graduate Coordinator CSI, CSIM, Data Science Certificate
- Anamaria Berea, Graduate Coordinator CSS

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 (http://catalog.gmu.edu/colleges-schools/science/computational-data-sciences/computational-data-sciences-bs/), the Computational and Data Sciences Minor (http://catalog.gmu.edu/colleges-schools/science/computational-data-sciences/computational-data-sciences-minor/), and the Government Analytics Minor (https://catalog.gmu.edu/colleges-schools/science/computational-data-sciences/government-analytics-minor/) in cooperation with the Schar School of Policy and Government (https://catalog.gmu.edu/colleges-schools/policy-government/). Accelerated master's options are also available for undergraduate students interested in the Computational Science, MS (http://catalog.gmu.edu/colleges-schools/science/computational-data-sciences/computational-sciences-ms/) or the Bioinformatics Management, PSM (https://catalog.gmu.edu/colleges-schools/science/systems-biology/bioinformatics-management-professional-science-masters/).

Many opportunities exist for undergraduate students to become involved with research. Students should consult with faculty working on research topics of interest to them based on their exploration of the departmental website (https://cos.gmu.edu/cds/).

Graduate Programs

This department offers the Data Science Graduate Certificate (http://catalog.gmu.edu/colleges-schools/science/computational-data-sciences/data-science-graduate-certificate/), the Computational Social Science Graduate Certificate (http://catalog.gmu.edu/colleges-schools/science/computational-data-sciences/computational-social-science-graduate-certificate/), the Computational Science, MS (http://catalog.gmu.edu/colleges-schools/science/computational-data-sciences/computational-sciences-ms/), the Computational Sciences and Informatics, PhD (http://catalog.gmu.edu/colleges-schools/science/computational-data-sciences/computational-sciences-informatics-phd/), and the Computational Social Science, PhD (http://catalog.gmu.edu/colleges-schools/science/computational-data-sciences/computational-social-science-phd/). An accelerated master's option is also available for undergraduate students interested in the Computational Science, MS (http://catalog.gmu.edu/colleges-schools/science/computational-data-sciences/computational-sciences-ms/). The department also supports the Computational Social Science Concentration in the Interdisciplinary Studies, MAIS (http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/integrative-studies/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
Axtell, Blaisten-Barojas, Croitoru

Associate Professors
Berea, Kennedy, Kinser, Lopez, Rothman

Assistant Professors
Abdullah, Belaia, Bidkhori, Dade, Kavak, White

Affiliated Faculty
Anderson, Caplan, Crooks, der Heide, Gkountouna, Griva, Handler, Lamberti, Mahabir, Melick, Renz, Roberts, Rogers, Shehu, Sheng, Smart, Susse

Mason Korea Faculty
Babalola, Colchao, Leung, Park

Adjunct Faculty
Alvarez, Ken Comer, Kevin Comer, Castro, Cruz, Hui, Iasiello, Miller, Patrick, Rahman, Rajeev, Romanelli, Russo, Scott, Silayi, Slamani, Sponseller, Swartz, Wolf

Emeritus Professors
Cioffi-Revilla, Gentle, Papaconstantopoulos

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)

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