

Office of Academic Affairs

3501 Lee Hall
P.O. Box BQ
Mississippi State, MS 39762

The following academic programs are housed in the Office of Academic Affairs:

- Geospatial and Remote Sensing Minor (Starkville Campus)
- Master's Program in Physician Assistant Studies (Meridian Campus)
- Master of Science in Computational Biology (Starkville Campus)
- Doctor of Philosophy in Computational Biology (Starkville Campus)
- Computational Biology Minor (Starkville Campus)
- Master of Science in Data Science (Starkville and Online)
- Data Science Minor (Starkville Campus)

Complete information on each program is found in this section of the Graduate Catalog.

Department	Degree and Major	Concentration	Thesis	Non-Thesis	Starkville	Meridian	Distance
Academic Affairs	Minor in Remote Sensing				X		
Academic Affairs	Minor in Data Science				X		
Academic Affairs	Minor in Computational Biology				X		
Academic Affairs	Master of Physician Assistant Studies			X		X	
Academic Affairs	Master of Science - Computational Biology		X		X		
Academic Affairs	Master of Science - Data Science			X	X		X
Academic Affairs	Doctor of Philosophy - Computational Biology				X		X

Master of Science in Data Science

The interdisciplinary Master of Science in Data Science degree program will provide students with a broad training in managing, processing, and extracting value from a giant and diverse data sets and allow them to communicate their findings. The program will prepare students for professional employment in industry, government, and NGOs and at the same time obtain sufficient skills to continue into more advanced degree programs. Admission to the Master's program in Data Science is open to graduates from all disciplines with a strong quantitative background and computational skills. The program of study is a blend of statistical and optimization methodology laced with data management and computational skills, and it provides graduate students with the opportunity to participate in data analytics projects. For more information, please contact either Dr. Rahimi (rahimi@cse.msstate.edu) (rahimi@cse.msstate.edu) or Dr. Razzaghi (razzaghi@math.msstate.edu). (razzaghi@math.msstate.edu)

CSE 8423	Data Science Concepts and Practice	3
ST 8123	Statistical Thinking: Probability Models and Theory of Statistics	3
ST 8133	Statistical Modeling	3
CSE 6503	Database Management Systems	3
CSE 8080	Directed Project in Computer Science	1-3
General Electives		

Students will complete 15 hours in approved Data Science electives. Up to 6 hours Directed Individual Studies may count towards the degree.

15

Total Hours

30

Geospatial and Remote Sensing Minor

Director: Dr. John Rodgers

Department of Geosciences

355 Lee Blvd, 108 Hilbun Hall

Mississippi State University, MS 39762

Telephone: 662-325-3915

E-mail: jcr100@msstate.edu

Mailstop: 9537

The Geospatial and Remote Sensing (GRS) minor is a cross-disciplinary program that allows students from any major to develop and enhance their geospatial skills. Students will learn important theoretical concepts associated with geographic information systems and remote sensing sciences, and they will acquire the ability to use these methods to solve spatial problems. Graduate students must complete a minimum of 12 hours of GRS coursework at Mississippi State University with a grade of C or higher from a list of approved courses. A 3.00 GPA is required. An MSU Graduate Faculty member with geospatial expertise must serve as minor professor on the student's graduate committee.

A student who chooses this minor must have the approval of his or her graduate committee and graduate coordinator in the major field. The minor coursework is then included on the student's program of study and is approved by the minor graduate coordinator.

GIS requirement: Choose one of the following. 3

FO 6471

and

FO 6472

GR 6303 Principles of GIS

WFA 6253 Application of Spatial Technologies to Wildlife and Fisheries Management

Remote Sensing: Choose one of the following. 3

FO 6453 Remote Sensing Applications

GR 6333 Remote Sensing of the Physical Environment

ECE 6423 Introduction to Remote Sensing Technologies

or ABE /PSS 6483 Introduction to Remote Sensing Technologies

Advanced Geospatial Coursework: Choose one of the following. 3

FO 6313 Spatial Technologies in Natural Resources Management

FO 8313 Spatial Statistics for Natural Resources

FO 8353 Ecological Modeling in Natural Resources

FO 8173 Advanced Spatial Technologies

GR 6313 Advanced GIS

GR 6343 Advanced Remote Sensing in Geosciences

GR 8303 Advanced Geodatabase Systems

Geospatial Applications : Choose one of the following. Courses must be different from the ones taken from the above categories. A course may not be used to satisfy more than one requirement. 3

ECE 6413 Digital Signal Processing

ECE 8401 Current Topics in Remote Sensing

ECE 8473 Digital Image Processing

GR 6323 Cartographic Sciences

GR 6353 Geodatabase Design

GR 6363 Geographic Information Systems Programming

GR 6411 Remote Sensing Seminar

or PSS /ECE /FO 6411 Remote Sensing Seminar

PSS 6373 Geospatial Agronomic Management

The following courses listed in the categories above can also meet this requirement if not used in another category.

FO 8173 Advanced Spatial Technologies

FO 8313 Spatial Statistics for Natural Resources

FO 8353 Ecological Modeling in Natural Resources

GR 6313 Advanced GIS

GR 6343 Advanced Remote Sensing

ST 4313 Spatial Statistics

Total Hours

12