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
- 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 both programs 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	Master of Physician Assistant Studies			X		X	
Academic Affairs	Master of Science - Computational Biology		X		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

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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**