

# GEOGRAPHY (GEOG)

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## **GEOG 101 Physical Geography (GB) (3 credits)**

Course emphasis includes basic physical elements of geography, including map reading and interpretation, as well as climate, landforms, soil and natural resources and their integrated patterns of world distribution.

## **GEOG 102 Human Geography (GB) (3 credits)**

This course features basic cultural elements of geography including population distribution, settlement, land use patterns and their correlation with the physical elements of the world. This course is only offered in the spring semester.

## **GEOG 103 World Regional Geography (GB) (3 credits)**

This course is a survey of world geographical regions that examines geographic features and areas, as well as their significance.

## **GEOG 203 Fundamentals of Geospatial Technology (3 credits)**

This course introduces the most effective tools to record and communicate spatial information. Emphasis is on concepts and use of Geographic Information Systems (GIS), as well as the introduction of digital cartography and visualization, spatial analysis, remote sensing, and Global Positioning Systems (GPS/GNSS). Students will learn how geospatial technology is utilized in a variety of industries including government. GEOG 101 may be taken prior to or at the same time as GEOG 203. This course is only offered in the fall semester. Course fee.

Prerequisite(s): (GEOG 101 (may be taken concurrently)) or (PARCC Algebra II with a score of 750)

## **GEOG 204 Introduction to Geographic Information Systems (4 credits)**

This course introduces students to selected computer hardware and software for the storage, retrieval, manipulation, analysis, and display of geographic data. Practical applications of geographic information systems (GIS) are emphasized. This course is not intended to provide students with extensive training in particular GIS software. However, laboratory projects involving student use of Windows-based GIS software on desktop computers and Web-based mapping applications are required and will reinforce important concepts. Requires successful completion of GEOG 101 and GEOG 203. This course is only offered in the spring semester. Course fee.

Prerequisite(s): (GEOG 101 and GEOG 203)

## **GEOG 207 Small Uncrewed Aircraft System (sUAS)/Drone Remote Pilot Training (1 credit)**

Provides students with knowledge about the regulations and procedures governing the safe and legal operation of small remotely operated aircraft systems (sUAS), commonly referred to as "drones." Coincides with the knowledge areas in the Federal Aviation Administration's (FAA's) Part 107 knowledge test for a Remote Pilot Certificate with a sUAS rating and is intended to prepare students for the FAA written examination required for students to become commercial sUAS pilots.

## **GEOG 208 Introduction to Drone Technology and Applications (3 credits)**

This course introduces uncrewed aircraft systems (drones), including applications, safety, maintenance, mission planning, flying, and data acquisition (still images and video) using a variety of sensors. GEOG 207 Small Uncrewed Aircraft Systems (sUAS) Remote Pilot Training is recommended to take concurrently with GEOG 208.

## **GEOG 210 Remote Sensing and Global Positioning Systems (3 credits)**

Introduction to the acquisition, interpretation and mapping of aerial and satellite images. Students will also learn to use Global Positioning Systems (GPS) in the field, apply error correction of GPS data, and build Geospatial Information Systems using GPS technology. This course meets for 30 lecture hours and 30 laboratory hours. Requires successful completion of GEOG 203 with a grade of "C" or higher. This course is only offered in the spring semester.

Prerequisite(s): GEOG 203

## **GEOG 220 Advanced Geospatial Information Systems (3 credits)**

This course builds upon the concepts introduced in GEOG 204. Students will learn in-depth spatial data handling, modeling, and analysis using ArcGIS software. This course meets for 30 lecture hours and 30 laboratory hours. Requires GEOG 204 grade of "C" or higher. This course is only offered in the fall semester. Course fee.

Prerequisite(s): (GEOG 204 (may be taken concurrently))

## **GEOG 230 Geospatial Project (4 credits)**

This is a capstone course in which students will gain real world experience in the development, management, and implementation of a geospatial project. The project will be used to resolve geospatial problems in the public and private sectors, and/or in academia. This class meets for 30 lecture hours and 60 laboratory hours. GEOG 220 must be taken prior to or at the same time as this course. Course fee.

Prerequisite(s): (GEOG 220 (may be taken concurrently)) and (GEOG 204)

## **GEOG 283 Geography Internship (3 credits)**

The internship is designed to provide students with experiences typical of those encountered on a job in the related field. Permission of the instructor is required. This course is only offered in the spring semester. Course fee.