## **Geographic Science and Technology Assessment Plan 2019**

The Earth and Geographic Sciences Department expects that each Geographic Science and Technology graduate should have a well rounded understanding of geographic knowledge and skills. With this intent, the program requires the students to take a series of courses which include the following essential elements of geography.

- 1. The use of maps to present and interpret patterns of physical and human characteristics on the Earth's surface;
- 2. The distinctiveness of places and regions with respect to the integration of physical and human characteristics;
- 3. Description and explanation of human characteristics and their spatial distribution on the Earth's surface, including composition of population, cultural complexes, economic interdependence, settlement and political patterns;
- 4. Human-environment interactions, including the perception, distribution and use of natural resources.

The program provides students with opportunities to develop the following skills and understandings with respect to the elements of Geography:

## 1. Analytical thinking

Students will describe and analyze in both description and analysis of physical and human conditions on Earth's surface using geographic terms and concepts. Pertinent courses: Geog1000 EES, 1100 Human Geo, GEOG4700 Conservation

### 2. Written and oral expression

Students will communicate via written and oral expression with clarity, logical organization, and with effective argument using geographic data and analysis. Pertinent courses: Geog2056 Climate Change, Geog3000 Econ Geo, Geog3100 Political Geo, Geog3110 Climatology, Geog3200 Regional Geo, Geog3300 Urban Geo, Geog3400 Pop Geo, Geog4200 Geomorph, Geog4700 Conservation

#### 3. Research

Students will identify a research problem and use relevant data and other sources of information to conduct geographic research. Pertinent courses: Geog2400 Intro, Geog2056 Climate Change, Geog3000 Econ Geo, Geog3100 Political Geo, Geog3110 Climatology, Geog3200 Regional Geo, Geog3300 Urban Geo, Geog3400 Pop Geo, Geog4200 Geomorph, Geog4700 Conservation

# 4. Graphic expression

Students will acquire, interpret, and present spatial information by graphic means including maps, graphs, images, and other means such as databases. Pertinent courses: Geog3120 Cart, Geog3300 Urban Geo, Geog4000 GIS, Geog4001 Web GIS, Geog 4002, GIS II.

#### 5. Geospatial technical skills

Students will use geospatial technologies including GIS, Remote Sensing, and other relevant technology (e.g., GPS) for analyzing geographic phenomena, performing spatial analysis, and solving geographic problems. Pertinent courses: Geog2400 Intro, Geog3120 Cart, Geog3300 Urban Geo, Geog4000 GIS, Geog4001 Web GIS, Geog4002 GIS II, Geog4500 RS.