

ESM 296-1 - Advanced GIS - Fall 2016

ESM 296-1 is a brief survey of advanced geographic information system (GIS) tools and techniques.

The course assumes a level of GIS experience equivalent to successful completion of ESM 263—if, for example, you don't know the difference between a geodatabase and a shapefile, or if you've never implemented a multi-step analysis in ModelBuilder, then you probably aren't prepared for this course. If in doubt, see the instructor!

Each of the 5 course sessions will address a mostly independent set of topics. Each topic set will have an associated assignment, designed to be easily completed in a week. The assignments will be submitted via [GauchoSpace](#)—all other course information will be found on the [course website](#).

Venue: 0830-1130 Fridays (24 Sep–21 Oct) in Bren Hall 3035 (the "GIS Lab")

Instructor: [James Frew](#) (office hours by appointment)

Class 1: Scripting ArcGIS with Python

ESM 296-1 Assignment 1: Global wind power potential

Due: **08:30 The 29 Sep**

Worth: **20% of total grade**

Submit to: **ESM 296-1 GauchoSpace**

Class 2: Command-line GIS: GDAL

ESM 296-1 Assignment 2: satellite data subsetting

Due: **08:30 Thu 06 Oct**

Worth: **20% of total grade**

Submit to: **ESM 296-1 GauchoSpace**

Class 3: Alternative desktop GIS: QGIS

Class 4: Web GIS, part 1

ESM 296-1 Assignment 3: Geospatial web service

Due: **08:30 Thu 20 Oct**

Worth: **20% of total grade**

Submit to: **ESM 296-1 GauchoSpace**

Class 5: Web GIS, part 2

ESM 296-1 Assignment 4: KML visualization

Due: **08:30 Thu 27 Oct**

Worth: **20% of total grade**

Submit to: **ESM 296-1 GauchoSpace**