2985:101. Introduction to Geographic & Land Information Systems. (3 Credits)
Introduction to the principles and concepts of Geographic and Land Information Systems used in surveying and mapping applications. Laboratory.

2985:151. GIS Essential Skills. (3 Credits)
Prerequisite: 2985:101. Continued instruction and hands-on emphasis on common skills used in the GIS industry. Skills: Creating reference maps, geocoding, digitizing, reports and mapbooks. Laboratory.

2985:201. Intermediate Geographic and Land Information Systems. (3 Credits)
Prerequisite: 2985:101. Continued instruction in the hands-on technical applications of Geographic and Land Information Systems. Laboratory.

2985:205. Building Geodatabases. (3 Credits)
Prerequisite: 2985:101 or equivalent. Introduction and application of spatial geodatabases. The student will create, use, and manage geodatabases. Geodatabases are used for storing spatial and attribute data. Laboratory.

2985:210. Geographic and Land Information Systems Project. (3 Credits)
Prerequisites: 2985:101. Practical application and presentation techniques using the principles and concepts of cartography and geographic information systems. Laboratory.

2985:280. Topics in Professional Practice. (2 Credits)
Topics in applicational areas of Geographic and Land Information Systems (GIS/LIS) from the point of view of the practitioner and the consumer.

2985:290. Special Topics in Geographic and Land Information Systems. (1-3 Credits)
Special lecture/laboratory courses offered once or only occasionally in areas where no formal course exists.

2985:291. Geographic and Land Information Systems Internship. (3 Credits)
Prerequisite: Permission of Program Director. Supervised professional experience in GIS/LIS agencies or related setting.

2985:295. Workshop in Geographic and Land Information Systems. (1-3 Credits)
Group studies of special topics in GIS/LIS. May be used for elective credit only to a maximum of three credits.

2985:299. Independent Study. (1-3 Credits)
Directed study in a special field of interest chosen by the student in consultation with the instructor.

2985:301. Exploring ArcGIS Extensions. (3 Credits)
Prerequisite: 2985:101. Specialized instruction and laboratory exercises in working with the ArcGIS extensions, Spatial Analyst, 3-D Analyst and Network Analysis. Laboratory.