SRVY 230. Intro to Surveying for Engineers. 3 Credits. (2 Lec, 1 Lab) F,S,Su
PREREQUISITE: M 165Q or M 171Q or M 181Q. Basic surveying measurements and computations for engineering project control, mapping, and construction layout; theory of observational errors and error propagation; fundamental concepts of horizontal and vertical control systems; use of topographic maps and plan-profile sheets; computation of horizontal and vertical curves; introduction to UAV and LiDAR use; USPLS and GIS introduction; introduction to computer tools used in Civil Engineering.

SRVY 273. Route Surveying. 3 Credits. (2 Lec, 1 Lab) S
PREREQUISITE: SRVY 230. Route surveys, construction surveys, and earthwork calculations.

SRVY 355. Surveying Calculations. 3 Credits. (2 Lec, 1 Lab) S
Alternate Even Years PREREQUISITE: SRVY 230. Modern instrumental and computational techniques in surveying including least squares analysis, geodesy, state plane coordinates, and the global positioning system.

SRVY 361. Intro Legal Princ in Surveying. 3 Credits. (3 Lec) F

SRVY 362. Public Land Survey System. 3 Credits. (3 Lec) F
Alternate Odd Years PREREQUISITE: SRVY 230. Federal and state laws and regulations governing legal land surveying; case studies and professional responsibilities.

SRVY 375. Analytic Photogrammetry and Remote Sensing. 3 Credits. (2 Lec, 1 Lab) F
Alternate Odd Years. PREREQUISITE: M 165Q or M 171Q or M 181Q. Measurement and computation techniques for mapping from photographs; photo geometry, flight planning, ground control, cameras, control extension, stereoscopic instruments, UAV use in photogrammetry.

SRVY 474. Project Design in Surveying. 3 Credits. (2 Lec, 1 Lab) S
Alternate Odd Years PREREQUISITE: SRVY 230. COREQUISITE: DDSN 245. Surveying requirements of large project; land subdivision, utilities, topography, and earthwork. Term project research and report required.