

# SURVEYING (SUR)

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**SUR 143 Civil/Survey Drafting I 3 Credits (3)**

Introduction to drafting in the field of Civil Engineering. Drawings, projects, and terminologies related to topographic mapping, contour drawings, plan, and profiles as street/highway layout. (2+2P)

**Prerequisite(s):** A grade of C- or better in E T 109 or DRFT 109

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**SUR 222 Introduction to Geomatics 3 Credits (3)**

Theory and practice of geomatics as applied to plane surveying in the areas of linear measurements, angle measurements, area determination, differential and trigonometric leveling, and topographic mapping. (2+3P)

**Prerequisite(s):** A grade of C- or better in MATH 1250G or higher

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**SUR 285 Precise Digital Mapping 3 Credits (3)**

Photogrammetric Mapping Principles, digital sensor including optical cameras, terrestrial, surveying control, IMU & GPS integration, stereo photography, analytical triangulation, orthorectification, precision and accuracy of measurement systems, sUAS (Small Unmanned Aerial Vehicles) applications to geospatial data collection and practical applications project flight/pre planning, sensor platform, FAA regulations and restrictions, introduction to laser scanning systems.

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**SUR 292 Legal Principles and Boundary Law I 3 Credits (3)**

Fundamentals of real property law; principles of land description; survey evidence and procedure in boundary determination, order of importance of conflicting elements; and liability, ethical and professional principles in boundary surveying; contemporary issues in boundary determination.

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