

Land Surveying/Geomatics

Bachelor of Applied Science— Land Surveying/Geomatics Emphasis

Student Learning Outcomes

Graduates with a BAS with an emphasis in land surveying/geomatics will be able to:

- Proficiently apply sound measurement methods, mathematics, science, and surveying tools to collect, analyze, and edit spatial information in professional applications.
- Develop a sound background in the humanities, social sciences, and the arts to function in multicultural and diverse environments.
- Demonstrate fundamentals in business management and understand business environments and decision-making processes.
- Convey spatial information in graphical, textual, and verbal forms as an individual or as a collaborating member of a professional team.
- Prepare to take and pass the fundamentals of land surveying examination developed by the National Council of Examiners for Engineering and Surveying (NCEES).
- Satisfy the educational requirements for licensure required by NRS.625.270 as a professional Land Surveyor in Nevada and recognize the benefit of life-long learning by participating in continuing education as students or as instructors.

See page 91 for important additional information about the BAS program.

Entrance to the land surveying/geomatics emphasis requires an earned associate's degree and the completion of a college-level trigonometry course.

Prerequisite Requirements

The following courses or transfer equivalents are prerequisites for completion of the upper-division emphasis requirements:

CADD	121	CAD for Land Surveyors
GIS	109	Introduction to Geographic Information Systems
MATH	181	Calculus I
PHYS	151	General Physics I or
PHYS	180	Physics for Scientists and Engineers I
STAT	152	Introduction to Statistics
SUR	280	Fundamentals of Geomatics I
SUR	281	Fundamentals of Geomatics II
SUR	290	Introduction to Urban Development

General Education Requirements		Credits
COM	113	Fundamentals of Speech Communication, or
THTR	102	Introduction to Stage Voice, or
THTR	221	Oral Interpretation 3
PHIL	311	Professional Ethics (formerly ECON 311) 3
ENG	333	Professional Communications 3
Total Credits		9

Mastery Courses Requirements		Credits
Humanities/Social Science		3
HUM 301, INT 339, ANTH 307, ANTH 332, HIST 303, HIST 312, HIST 341, INT 349 or PSY 313		
Mathematical/Science.....		3
MATH 389, INT 359, GEOL 335 or INT 369		
Total		6

Applied Science Core Requirements		Credits
FIN	310	Applied Accounting and Finance 3
MGT	310	Foundations of Management Theory and Practice 3
MGT	323	Organizational Behavior and Interpersonal Behavior, or
MGT	367	Human Resource Management 3
PHYS	152	General Physics II or
PHYS	181	Physics for Scientists and Engineers II 4
(PHYS required for Land Surveying/ Geomatics Degree)		
Total		13

Program Emphasis Requirements		Credits
CADD	421	Advanced CAD for Land Surveyors 3
MATH	182	Calculus II 4
SUR	255	Introduction to Mine Surveying and
SUR	456	Advanced Mine Surveying, or
SUR	450	Construction Surveying 3-4
SUR	320	GIS for Surveyors 3
SUR	330	Introduction to Least Squares Adjustment 3
SUR	340	Photogrammetry and Remote Sensing .. 3
SUR	360	Public Land Survey System 3
SUR	365	Legal Descriptions 3
SUR	440	Geodetic and GPS Surveying 3
SUR	460	Advanced Boundary Analysis 3
SUR	495	Land Surveying/Geomatics Capstone 3
Total		34-35

Total for all sections.....**62-63**

Note: All students graduating from Nevada institutions of higher education must satisfy the U.S. and Nevada Constitutions requirement. Contact your academic advisor for details.