New Course Proposal

Prepare course proposal in accordance with the guidelines below and the format shown on the following pages.

COURSE PROPOSAL NUMBER: 25-26-13 (a)

REVISION (label Revision #1, #2, etc.): Click or tap here to enter text.

SECTION 1: PROPOSAL INFORMATION

Name:	Kaden Statler, S.I.
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College:	College of Science & Technology
Department:	Engineering Technology
Program Level:	Undergraduate
Date Originally Submitted:	10/10/2025
Implementation Date Requested:	8/1/2026

APPROVAL

The Deans of the affected colleges must sign below to indicate their notification and departmental support of this new course proposal. Should this new course affect any other department or program in another college, a memo must be sent to the Dean of each college impacted and a copy of the letters(s) or email(s) of support must be included with this proposal.

By signing below, you are indicating your college and department(s)'s approval of this proposal.

College	Dean's Signature
Science & Technology	
	

ADDITIONAL COMMENTS:

SECTION 2: COURSE CATALOG INFORMATION

1. **Course Subject Prefix and number (e.g., ENGL 1101):** Course number/prefix combinations may be used only once, and may not be recycled; please check with the Registrar's Office to get a list of available, valid course numbers.	SURV 1000
2. **Course Title:** The title of the course as it will appear in the course catalog.	Surveying in Society
3. **Number of Credit Hours:** Indicate the total number of credit hours for the course. If you are proposing a course with variable credit options, explain that here.	3
4. **Repeatability (number of repeat credit hours):** Students can repeat the course for credit.	0
5. **Course Prerequisites:** Include subject prefix and course number. List only immediate prerequisites (not prerequisites for other prerequisite courses).	N/A
6. **Course Co-requisites:** Include subject prefix and course number.	N/A
7. **Course Cross-listings** (e.g., PSYC 2230 and SOCY 2230)	N/A
8. **Course Restrictions** (e.g., Seniors only)	N/A
9. **Grade Type:** Indicate whether students will be assigned a standard A-F final grade, a Pass/Fail (P/F) grade, or No Grade (NG).	Standard A - F
10. **Requirements:** Will the course be a required or elective course? What course requirements will this course satisfy? Indicate specific major, minor, or College/Department requirement(s).	Required – SGET
11. **Course Terms:** In what semester(s) will the course be offered? (e.g., Fall only, Summer)	Fall
12. **Writing Intensive:** Does this course fulfill the Writing Intensive major requirement?	No
13. **Core Curriculum:** Will the course be reviewed and considered as a University Core Curriculum course offering? If yes, you will need to submit a separate Core Curriculum application to the General Studies Committee.	No

SECTION 3: CURRICULUM-BASED RATIONALE

What is the reason for developing the proposed course? Explain how the course fits into the curriculum. For example, is it a required or elective course for any specific program (if so, which one)? Which students will be taking this course? If there are already similar courses offered, explain why the needs of the program cannot be satisfied by an existing course. The curriculum-based rationale should be brief and to the point.
SURV 1000 – Surveying in Society is being developed as an introductory course for first-year students entering the Surveying and Geomatics Engineering Technology program. This course will provide students with a foundational understanding of the surveying profession, its historical and contemporary significance, and how it connects to the broader built environment. Additionally, the course will introduce students to the structure of the program's curriculum and highlight the importance of professional organizations, such as surveying societies, in shaping ethical standards, networking opportunities, and career development.

SECTION 4: COURSE SYLLABUS

Attach the course syllabus or at minimum the following course components:

Catalog Course Description:

SURV 1000 – Surveying in Society

This course introduces students to the surveying profession, exploring its historical foundations, societal relevance, and evolving role in infrastructure, land development, and geospatial science. Topics include an overview of surveying disciplines, professional ethics, licensure pathways, and the role of professional societies in advancing the field. Designed specifically for incoming surveying students, the course also builds foundational terminology, introduces career pathways and program expectations, and fosters the knowledge, skills, and academic habits necessary for success in subsequent surveying coursework.

Course Learning Outcomes: Upon successful completion of this course, students should be able to:

1. Describe the historical development of the surveying profession and its role in shaping land use, infrastructure, and public policy.
2. Identify major surveying disciplines (e.g., boundary, construction, geodetic, hydrographic) and their applications in modern society.
3. Explain the structure and expectations of the Surveying and Geomatics Engineering Technology curriculum at Fairmont State University.
4. Recognize the purpose and impact of professional surveying societies at the state, regional, and national levels.

5. Discuss ethical responsibilities and the importance of licensure in professional surveying practice.
6. Identify career pathways within surveying and related geospatial fields, including required education, credentials, and skillsets.
7. Create a basic professional resume tailored to entry-level opportunities or internships in the surveying and geospatial industry.
8. Demonstrate foundational academic behaviors and habits (e.g., effective communication, time management, teamwork) that contribute to success in future coursework.
9. Apply basic surveying vocabulary and concepts in discussions, written reflections, and introductory assignments.

Assessment of Student Learning

Student achievement of the course learning outcomes will be evaluated through a combination of formative and summative assessments. Formative assessments include quizzes, in-class activities, and homework assignments, which provide students with regular feedback and opportunities to apply key concepts throughout the semester. Summative assessments include laboratory exercises, projects, and examinations, which assess each student's ability to synthesize and demonstrate their knowledge and skills related to surveying practices. A minimum performance threshold of 70 percent across all assessments is established as the benchmark for satisfactory achievement of the course learning outcomes.

1. Surveying History Reflection Paper
    a. Related CLOs: 1, 2, 4
    b. Description: Students write a 2–3 page reflective paper on a historical event or development in surveying (e.g., Mason-Dixon Line, PLSS, boundary disputes). The paper should explain how surveying practices shaped land use, public policy, or national identity.
    c. Prompt Example: "How has surveying influenced the development of land boundaries, infrastructure, or national history in the U.S.?"
    d. Extension Ideas:
        i. Include primary source analysis (e.g., maps, plats, historical texts)
        ii. Peer review workshops for drafting and feedback
    e. Assessment Focus: Historical reasoning, written clarity, and connection to the modern profession
2. Surveying Societies Research & Presentation
    a. Related CLOs: 3, 4, 5
    b. Description: Small student groups select a professional surveying society (e.g., WVSPS, NSPS, SHS) and deliver a 5–7 minute presentation on its mission, code of ethics, student benefits, and career resources. Include a visual aid (PowerPoint, handout, or infographic).
    c. Invite a local society representative to class for Q&A
    d. Require students to attend a meeting or join as student members
    e. Assessment Focus: Oral communication, collaboration, and professionalism
3. Surveying Career Pathway Poster or Infographic
    a. Related CLOs: 3, 6

    b. Description: Students create a visual roadmap showing how to progress from a surveying student to a licensed professional. The pathway should include required degrees, certifications (FS, PS), internships, and sample job roles.
    c. Deliverable Options: Printed poster presentation or digital submission using Canva
    d. Assessment Focus: Career planning, visual design, clarity of communication
4. Resume & Professional Profile Assignment
    a. Related CLOs: 6, 7, 9
    b. Description:
    c. Students draft a professional resume tailored to an internship or entry-level surveying job. Optional components may include a basic cover letter, LinkedIn profile setup, or mock job application form.
    d. Extension Idea: Host a resume workshop with Career Services or a local employer and conduct mock interviews in class
    e. Assessment Focus: Career readiness, formatting standards, written professionalism
5. Introductory Vocabulary Quiz
    a. Related CLOs: 8, 9
    b. Description: Weekly or biweekly short quizzes covering essential surveying terms and concepts (e.g., benchmark, GNSS, legal description, datum). Use varied formats—matching, fill-in-the-blank, short answer, concept application.
    c. Optional Add-On: Flashcard creation as a study tool, Vocabulary Jeopardy or Kahoot! review session
    d. Assessment Focus: Terminology retention, practical understanding, consistent review
6. Program Map and Degree Planning Activity
    a. Related CLOs: 3, 7
    b. Description: Students review the Surveying & Geomatics Engineering Technology program layout and build a personal degree plan that includes coursework, internship timing, certification goals, and professional development milestones.
    c. Deliverables: Personal academic roadmap or spreadsheet, short reflection on academic and career goals
    d. Assessment Focus: Academic planning, program understanding, self-directed learning
7. Guest Lecture or Field Trip Reflection
    a. Related CLOs: 1, 2, 6
    b. Description: Students attend a guest speaker session or off-campus field trip (e.g., site visit, professional event) and submit a brief reflection (1–2 pages) connecting what they observed to class concepts.
    c. Guiding Questions: What was your biggest takeaway from the experience? How did the speaker or visit reinforce the importance of surveying in society?
    d. Assessment Focus: Engagement, critical thinking, real-world application
8. Final Project: Surveying in Society Portfolio
    a. The Surveying in Society Portfolio serves as the culminating assignment for SURV 1000. This comprehensive project brings together all major course assessments, allowing students to reflect on their learning, demonstrate professional growth, and showcase their understanding of the surveying

profession. The portfolio will include revised versions of previous assignments, along with a reflective summary tying together academic, professional, and personal insights gained throughout the course.

b. This final project encourages students to:
    i. Demonstrate how they have met the Course Learning Outcomes (CLOs).
    ii. Integrate historical, ethical, and professional knowledge about surveying.
    iii. Develop materials that contribute to their early professional identity, such as résumés and reflective writing.
    iv. Create a professional product they can expand upon in future coursework or internships.
c. Portfolio Reflection Essay
    i. Integrates CLOs: 1–9
    ii. A 2–3 page reflective essay in which students discuss how the coursework and activities in Surveying in Society have prepared them for success in future surveying courses. The essay should include:
    iii. A discussion of key skills and concepts gained
    iv. How their understanding of the surveying profession has evolved
    v. How they plan to stay engaged with professional organizations and lifelong learning
    vi. Short- and long-term professional goals

Course Outline

Unit 1: Foundations of Surveying
- 1.1 Definition and purpose of land surveying
- 1.2 Overview of the surveying industry and its societal impact
- 1.3 How surveying supports infrastructure and land development
- 1.4 Introduction to surveying career fields
- 1.5 Course expectations and success strategies for surveying students

Unit 2: History and Evolution of Surveying
- 2.1 Ancient and early surveying methods (Egypt, Rome, early America)
- 2.2 Major historical milestones (e.g., Mason-Dixon Line, PLSS, state boundaries)
- 2.3 Case studies of historical surveying projects
- 2.4 Technological evolution: from chains and compasses to GNSS
- 2.5 Reflection: How history shapes today's profession

Unit 3: Surveying Disciplines and Applications
- 3.1 Boundary, construction, geodetic, hydrographic, and topographic surveying
- 3.2 Real-world applications in civil, environmental, and geospatial industries
- 3.3 Surveying roles in public policy, zoning, and infrastructure
- 3.4 Fieldwork demonstrations and virtual project examples
- 3.5 Guest speaker or field trip activity

Unit 4: Ethics, Licensure, and Professional Practice
- 4.1 Overview of the Fundamentals of Surveying (FS) and Professional Surveyor (PS) exams
- 4.2 Licensure pathways and continuing education

4.3 Ethics in surveying practice (conflicts of interest, public trust, legal responsibilities)
4.4 Case studies on ethical dilemmas and boundary disputes
4.5 Class discussion or quiz on professional codes of conduct

Unit 5: Academic and Career Success in Surveying
5.1 Understanding the Surveying & Geomatics Engineering Technology curriculum
5.2 Degree planning, electives, and certification milestones
5.3 Study strategies, time management, and field-lab preparation
5.4 Resume and professional profile development
5.5 Career exploration through guest speakers and industry resources

Unit 6: Professional Organizations and Industry Engagement
6.1 Role of societies (e.g., WVSPS, NSPS, SHS, ASCE) in the surveying profession
6.2 Benefits of membership: networking, scholarships, conferences
6.3 Local and national engagement opportunities
6.4 Student presentations on professional organizations
6.5 Optional membership or event participation

Unit 7: Foundational Terminology and Concept Integration
7.1 Surveying terminology: benchmark, datum, plat, easement, etc.
7.2 Weekly vocabulary activities or quizzes
7.3 Applying terms in scenarios, diagrams, and case discussions
7.4 Student-created glossary of core terms
7.5 Concept map or visual summary project

Unit 8: Culminating Portfolio and Reflection
8.1 Portfolio structure and expectations
8.2 Selecting and revising course artifacts (resume, paper, infographic)
8.3 Writing a final reflection essay connecting all CLOs
8.4 Optional peer review session
8.5 Final submission and presentation (optional oral summary or digital showcase)