



Industrial Technology (IndT): 448 Project and Program Management

3 Credit Hours 16 Weeks

Spring Semester 2025 Year

Prerequisite(s): Senior Standing or Instructor Permission

Instructor Information

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E-mail is the preferred medium of communication for any changes to the class schedule. All e-mail notifications will be sent to the student's University of Idaho account only. Course information can be found on Canvas in the Courses section.

Course Description (Catalog)

The course addresses the project and program life cycle. It defines projects and programs, and the roles and responsibilities of project and program managers. Students are introduced to techniques for project/program planning (work structuring, budgeting, scheduling, resource allocation), and execution (monitoring, control, and closure).

Course Scope

The course provides an overview of proven techniques for managing successful projects. Covered topics include: project scope definition, constraints scope management, planning and cost estimating, performance monitoring and control, risk management, project communication, and project closure. The students will use a project management software (Microsoft Project or Project Libre) as a tool for managing a project's scope, schedule and budget, and to learn how to electronically define a work breakdown structure, generate reports, assign resources, produce charts, and track the progress toward achieving the project objectives.

Course Objectives

The objective is that upon the completion of the course the students should demonstrate the ability to:

1. Explain the concepts of project management.
2. Respond to a request for proposals by developing a project proposal.

3. Develop a project plan, including developing a project scope statement, a project schedule, and a budget.
4. Utilize a project management software program to assist in project management.
5. Use the Earned Value System to track the completion of a project.
6. Understand the procedures for becoming a Project Management Professional (PMP).
7. Discuss the importance of leadership to the completion of a project.
8. Develop a project risk management plan.
9. Perform a network analysis of a project.
10. Discuss the importance of properly closing out a project.

Learning Outcomes and Competencies

The learning outcomes and competencies of the IndT 448 course relate to the ability of students to:

1. Apply quality, safety, and industrial technology skills in a professional work environment within real-world constraints (1b).
2. Interpret, describe, and implement information contained in typical project specifications (1e).
3. Demonstrate project management skills by applying time value of money, select and implement cost-effective solutions and understand cost-accounting and effective scheduling principles (2a).
4. Develop, motivate, direct, and assist teams in applying critical thinking concepts to solve technology and engineering problems (2b).
5. Identify customer project goals, financial needs, timeline constraints, and other customer service based efforts (2c).
6. Manage dispute resolution to mutually beneficial accord (3c).
7. Analyze contemporary issues for pertinence and potential impacts (4a).

Note: The numbers in parentheses refer to Learning Outcomes and Competencies for the Industrial Technology program at the University of Idaho, as defined by the Advisory Board. The full list of learning outcomes and competencies is available at the following [link](#).

Project Information

The course project requires to apply the studied project management tools for developing a project plan. The project description will be posted on Canvas. The students will use either Microsoft Project or Project Libre software for developing a project work breakdown structure, assigning task durations and dependencies, and resource allocation. The project report should include a detailed description of the project concept and activities, scope definition, risk management plan, budget and schedule, and network analysis. The project report is due by the end of the day on Tuesday, May 6th.

Course Materials

Required textbook: Erik W. Larson, Clifford F. Gray
“*Project Management: The Managerial Process*”
7th Edition, 688 pages, McGraw-Hill Education, 2018
ISBN-10: 1259666093; ISBN-13: 978-1259666094

Note that the 5th edition of the textbook published in 2010, or the 6th edition published in 2013, can also be used instead of the 7th edition listed above.

Optional Reference Materials

Additional reading materials will be posted on Canvas.

Evaluation Procedures

The course is delivered in a web-based format. Course materials related to lecture notes, presentations, assignments, and supplementary materials, will be posted on Canvas on a regular basis. It is the students' responsibility to actively participate in the course by regularly logging in on Canvas, reading the posted materials, and completing the assignments in a timely manner. Canvas is the main medium for communication between the students in the course and the instructor.

Assignments: There are eight assignments in total. The assignments must be submitted on the dates specified in the Course Outline section. All assignments carry equal weight toward the final grade.

Examination: The course is project-based, therefore emphasis is placed on assessing students' knowledge through the course project, as explained in the above section Project Information.

Grading/Evaluation Procedure:

<i>Assignments</i> (8 in total)	75 marks
<i>Project Report</i>	25 marks
Total:	100 marks

<u>Final Grades:</u>	Above 90	A
	80 – 89	B
	70 – 79	C
	60 – 69	D
	Below 60	F

Course Outline

<u>Date</u>	<u>Topic</u>	<u>Course Objectives</u>	<u>Learning Outcomes</u>	<u>Readings</u>	<u>Assignments</u>	<u>Due Date</u>
Jan. 14	Introduction	1	1, 5	Chapters 1, 2, 3	A1: Project Management	Jan. 21
Jan. 21	Defining a Project, Project Management Software	2, 4	2, 5	Chapter 4	A2: Defining a Project	Feb. 3
Feb. 4	Network Analysis	3, 4, 8	1, 2, 3	Chapter 6	A3: Network Diagram Analysis	Feb. 17
Feb. 18	Scheduling Resources and Costs	3, 4	2, 3, 5	Chapter 8	A4: Resources Allocation	Mar. 3

<u>Date</u>	<u>Topic</u>	<u>Course Objectives</u>	<u>Learning Outcomes</u>	<u>Readings</u>	<u>Assignments</u>	<u>Due Date</u>
Mar. 4	Cost Estimating and Earned Value	3, 5	1, 2, 3, 5	Chapters 5, 13	A5: Earned Value	Mar. 24
Mar. 25	Risk Management	7	5, 6, 7	Chapter 7	A6: Project Risk Management	Apr. 7
Apr. 8	Project Leadership, Project Management Professional	6	4, 5, 6, 7	Chapters 10, 11	A7: Project Leadership, PMP	Apr. 21
Apr. 22	Project Closure	9	2, 4, 5	Chapter 14	A8: Project Closure and Turnover	May 6

Policies

WRITING EXPECTATIONS

All written submissions should be submitted in a font and page set-up that is readable and neat. It is recommended that students try to adhere to a consistent format, which is described below.

- Typewritten in double-spaced format with a readable style and font and submitted inside the electronic classroom (unless classroom access is not possible and other arrangements have been approved by the professor).
- Arial 11 or 12-point font or Times New Roman styles.
- Page margins Top, Bottom, Left Side and Right Side = 1 inch, with reasonable accommodation being made for special situations and online submission variances.

CITATION AND REFERENCE STYLE

Assignments completed in a narrative essay or composition format must follow APA or MLA style guidelines.

LATE ASSIGNMENTS

For each day of late submission of the homework assignments, 10 % of the assignment marks will be deducted, unless the student contacts the instructor ahead of time about an extenuating situation.

DISABILITY ACCOMODATIONS

This institution complies with the [Americans with Disabilities Act, Section 504 of the Rehabilitation Act](#), and the [World Wide Web Consortium's \(W3C\) Universal Access Guidelines](#). Reasonable accommodations are available for students who have a documented disability. Please notify your instructor(s) during the first week of class regarding accommodation(s) needed for the course. All accommodations must be approved through the ISU Counseling Testing and Career

Services Office in Idaho Falls. For assistance, please call 282-7750 or stop by their office in the Student Union Building Room 223.

CELL PHONE/TEXTING POLICY

Does not apply to web-based courses.

NETIQUETTE

Online universities promote the advancement of knowledge through positive and constructive debate –both inside and outside the classroom. Discussions on the internet, however, can occasionally degenerate into needless insults and “flaming.” Such activity and the loss of good manners are not acceptable in a university setting, where basic academic rules of good behavior and proper “netiquette” must persist. Remember that you are in a place for the fun and excitement of learning, which does not include descent to personal attacks, or student attempts to stifle the discussion of others.

- Technology limitations: while you should feel free to explore the full range of creative composition in your formal papers, keep e-mail layouts simple. The Educator classroom may not fully support MIME or HTML encoded messages, which means that boldface, italics, underlining, and a variety of color-coding or other visual effects will not translate in your e-mail messages.
- Humor note: despite the best of intentions, jokes and (especially) satire can easily get lost or taken seriously. If you feel the need for humor, you may wish to add “emoticons,” such as ;-), :), or J, to help alert your readers.

ACADEMIC INTEGRITY

The University of Idaho expects that students will engage in academic activity with high standards of honesty and integrity. These values are central to the educational process and are also cornerstone values for citizenship and professional conduct after you leave the University.

The University of Idaho has specific academic honesty expectations described in the Student Code of Conduct. These are minimum standards that are generally applied across the University.

For more information see;

<http://www.uidaho.edu/DOS/academicintegrity>

NONDISCRIMINATION POLICY

The University of Idaho has a policy of nondiscrimination on the basis of race, color, religion, national origin, sex, age, disability or status as a Vietnam era veteran. This policy applies to all programs, services, and facilities, and includes, but is not limited to, applications, admissions, access to programs and services, and employment. Such discrimination is prohibited by titles VI and VII of the Civil Rights Act of 1964, title IX of the Education Amendments of 1972, sections 503 and 504 of the Rehabilitation Act of 1973, the Vietnam Era Veterans' Readjustment

Assistance Act of 1974, the Age Discrimination Act of 1975, the Age Discrimination in Employment Act Amendments of 1978, the Americans With Disabilities Act of 1990, the Civil Rights Act of 1991, the Rehabilitation Act Reauthorization of 1992 and other state and federal laws and regulations. Sexual harassment violates state and federal law and policies of the Board of Regents, and is expressly prohibited, as stated in Faculty Staff Handbook (FSH) 3220. The University of Idaho also prohibits discrimination on the basis of sexual orientation, as stated in FSH 3215. The entire FSH can be accessed online at <http://www.webs.uidaho.edu/fsh>. Questions or concerns about the content and application of these laws, regulations or University policy may be directed to the Human Rights Compliance Officer (208-885-4213); Complaints about discrimination or harassment should be brought to the attention of the Human Rights Compliance Office (208-885-4212). Retaliation for bringing forward a complaint is prohibited by FSH 3810.

LIBRARY RESOURCES

As a UI student, you not only have access to valuable print and electronic resources from the university's library, but you also have access to personalized assistance from the librarians. If you have assignments or research questions and aren't sure how to make the most of library resources from off-campus, feel free to contact the College of Education liaison librarian with questions. Help may be obtained via phone; 208-885-2503. As always, you may also call the main reference desk anytime Monday to Thursday 9am to 9pm, Friday 9am to 5pm, and Sunday 1pm to 9pm, 208-885-6584, or visit <http://www.lib.uidaho.edu> for email or IM assistance.

DISCLAIMER STATEMENT

Course content may vary from the outline to meet the needs of this particular group.