Southern Illinois University

Table of Contents

Technical Resource Management

Mission Statement

The mission of the School of Applied Engineering and Technology is to provide value to our stakeholders through innovation in applied engineering education.

The Bachelor of Science in Technical Resource Management (TRM) is specifically designed for those students who have entered into a technically-oriented career path for which a traditional baccalaureate degree may not be available. This degree program is a degree completion program (juniors and seniors only). The TRM degree is ideally suited for students with a community college Associate in Applied Sciences (A.A.S.) technical degree, technical institute occupational degree, individuals with military training/schools and experience, and trade apprenticeship and journeyman education and experience. Further this degree can also provide a bridge for those seeking re-entry into the workforce following displacement due to personnel, organizational, or other general economic factors.

The TRM curriculum focuses on preparing technically-oriented individuals for career advancement into supervisory, leadership/management, and entrepreneurial roles in their fields of technical expertise. Foundational coursework further provides in depth understanding and application in the fundamentals of project management, quality management, management and leadership of personnel in technical environments, data analysis, and professional communications within technical environments. Additionally, each student works with the program advisor to design an academic plan that reflects his or her specific career goals.

The TRM degree program is offered in two delivery formats: 1) traditional on-campus face-to-face classes, and 2) fully online.

General admission to the TRM program requires a 2.0 GPA. Students who are interested in pursuing a degree in Technical Resource Management are encouraged to contact a program representative as early as the first semester at their community college. For more information, contact the School of Applied Engineering and Technology.

Bachelor of Science (B.S.) in Technical Resource Management

The Bachelor of Science in Technical Resource Management requires a minimum of 120 semester hours, to be completed in accordance with SIU Carbondale Degree Requirements (see University Core Curriculum section). In addition to University Core Curriculum and TRM courses, students can select from a specialization or minor, so they can develop an individualized plan of study that complements their professional aspirations.

B.S. Technical Resource Management Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum Requirements [1]	39
Requirements for Major in Technical Resource Management	39

Degree Requirements	Credit Hours
TRM Core Requirements (or approved equivalents): TRM 316, TRM 364, TRM 383, TRM 425, TRM 464, and TRM 470	18
TRM Support Courses, select from: TRM 332, TRM 361, TRM 362, TRM 363E, TRM 421, TRM 440, or approved equivalents	6
Approved Electives (specialization or individualized plan)	15
Career Electives	42
An Associate in Applied Science degree (A.A.S.) from an accredited institution meets this requirement. An approved apprenticeship or a maximum of 30 semester hours of internship, work experience credit, or independent study may be part of these 42 hours.	
Total	120

[1] *The Capstone Option reduces University Core Curriculum requirement to 30 hours.*

Organizational Development Specialization

The Organizational Development specialization provides students with a comprehensive curriculum in the management of technical enterprises. Students who select the specialization will have the opportunity to explore the labor-management relationship, the relevance of technology and innovation to international trade, the management of a sustainable enterprise, the fiscal and legal aspects of management, and the professional development of the individual, as well as selected special topics. The broad perspective of the specialization equips graduates for mid-level positions in most any industry.

The specialization includes the 18 credit hours of the TRM Core Requirements plus a total of 15 credit hours of TRM Support Courses to be selected from the following: TRM 332, TRM 361, TRM 362, TRM 363E, TRM 421, TRM 440.

Capstone Option for Transfer Students

The Capstone Option may be available to eligible students who have earned an Associate in Applied Science (A.A.S.) degree or the equivalent. The Capstone Option reduces University Core Curriculum requirements from 39 to 30 hours, therefore reducing the time to degree completion. See the Capstone Option section for more information on this option.

Technical Resource Management Courses

TRM259 - Occupational Education Credit Credit will be awarded via program evaluation of past lower-level non-accredited occupational education and training related to the student's academic and career objectives. Unless otherwise determined by the program director, the credit may be applied only to the approved technical or career elective requirement of the Technical Resource Management degree. Restricted to TRM majors. Credit Hours: 1-60

TRM316 - Applications of Technical Writing (Same as PSM 316) This course will increase students' abilities in communicating various workplace documents common to technical disciplines. The course is designed to meet the writing portion of the College's Communication-Across-the-Curriculum initiative. A grade of C or better is required. Prerequisite: ENGL 101 with a grade of C or better. Credit Hours: 3

TRM319 - Occupational Internship Each student will be assigned to a University approved organization engaged in activities related to the student's academic program and career objectives. The student will perform duties and services as assigned by the preceptor and coordinator. Reports and assignments are required to be completed by the student. Hours and credits to be individually arranged. Mandatory Pass/Fail. Credit Hours: 1-15

TRM320 - Work Study Internship Provides work-study students with an opportunity to participate in an on-campus work experience related to their academic program and career objectives. Hours and credits are to be individually arranged. Mandatory Pass/Fail. Credit Hours: 1-10

TRM332 - Labor-Management Relations The student will gain an understanding of the basic concepts and techniques of modern labor-management relations. Topics covered include labor history, labor law, unions, labor contracts, collective bargaining processes, grievance and arbitration procedures, and the move towards participative models of labor relations. Restricted to TRM major. Credit Hours: 3

TRM350 - Technical Career Subjects In-depth competency and skill development and exploration of innovative techniques and procedures used in business, industry, professions, and health service occupations offered through various workshops, special short courses, and seminars. Hours and credit to be individually arranged. This course may be classified as independent study. Special approval needed from the school. Credit Hours: 1-32

TRM358 - Work Experience Credit Credit will be granted via departmental evaluation of prior job skills, management-worker relations and supervisory experience gained through experiences related to the student's academic and course objectives. Unless otherwise determined by the school director, this credit may be applied only to the approved Career Elective requirements of the Technical Resource Management degree. Restriction: TRM major. Credit Hours: 1-30

TRM359 - Occupational Education Credit Credit will be awarded via program evaluation of past upper-level non-accredited occupational education and training related to the student's academic and career objectives. Upper-level credit is defined as that which is determined to be equivalent to junior-or senior-level college coursework either by faculty evaluation or by the evaluation of a recognized body, such as the American Council on Education (ACE). Unless otherwise determined by the program director, the credit may be applied only to the approved technical or career elective requirement of the Technical Resource Management degree. Restricted to Technical Resource Management majors. Credit Hours: 1-60

TRM361 - Fiscal Aspects of Technical Management An introduction to fiscal structures and problems encountered in the technically oriented enterprise. Restriction: TRM major. Credit Hours: 3

TRM362 - Legal Aspects of Technical Management An introduction to the types of legal problems encountered in the technically oriented enterprise. Restriction: TRM major. Credit Hours: 3

TRM363E - Special Topics in Technical Management-Employee Relations Specialized study for the investigation of management problems relating to the student's career objective. Study of the techniques of employee relationships to include the dynamics and procedures required for managing the work center. Need not be taken sequentially. Credit Hours: 3

TRM364 - Work Center Management This course is an introduction to the language and concepts of management. Focus is on ethical and social responsibility, the planning process, organizational structure and culture, leadership, and managerial controls. Management topics such as decision making, organizational change, staffing, motivation, and communication will be addressed. A grade of C or better is required. Restriction: TRM major. Credit Hours: 3

TRM383 - Data Applications and Interpretation This course will give students an understanding of the basic principles and techniques involved in the statistical treatment of data, including the selection of data sources, the design of statistical studies, and the analysis, synthesis, and utilization of data. Students will

gain experience in using data for decision-making in their respective professions. TRM majors must earn a grade of C or better. Prerequisite: University Core Curriculum Mathematics with a grade of C or better. Credit Hours: 3

TRM421 - Professional Development Presents prevailing elements to attain technical career success. Organizational cases explore management and leadership roles, training, strategic planning, and career research explores employment processes and applications practices. Deliverables include a portfolio comprised of career case studies and professional profile materials. Prerequisite: ENGL 102 w/C or better. Restriction: TRM major. Credit Hours: 3

TRM425 - Operations Management This course is designed to provide students with an introduction to the field of operations management followed by the examinations of strategic issues and practical applications in the operations management process, which further include: forecasting, product and service design, capacity planning, facility layout and planning, scheduling, an introduction to quality and project management, MRP and ERP processes, inventory and supply chain management, and lean operations from a technical management perspective. A grade of C or better is required. Restriction: TRM major. Credit Hours: 3

TRM440 - Technology and Management of Sustainable Enterprises This course focuses on the technology and business principles found in the growing sector of environmentally green enterprise. A variety of sustainable business practices will be studied. Credit Hours: 3

TRM464 - Managing For Quality The course focuses on management techniques used to upgrade the level of quality of products and services in organizations. Topics cover the processes of continuous quality improvement: strategies and objectives, quality measures, participative management practices, worker empowerment, customer preferences and expectations, vendor/supplier inputs, process technology outputs, integrated feedback loops, and quality audits and review. A grade of C or better is required. Restriction: TRM Major. Credit Hours: 3

TRM470 - Project Management This course is designed to provide students with an overview of the project management process based on the knowledge areas/processes developed by Project Management Institute (PMI). This course further provides an in-depth examination of the activities needed to successfully initiate, plan, schedule, and control the time and cost factors of the project from a technical management perspective. Course emphasis using the content of the PMBOK prepares a student for the Certified Associate Project Manager (CAPM) examination/certification. A grade of C or better is required. Credit Hours: 3

Technical Resource Management Faculty

Chappanda, Karumbaiah, Assistant Professor, Ph.D., University of Utah, 2013.

DeRuntz, Bruce D., Professor, Ph.D., Southern Illinois University Carbondale, 2005.

Dunston, Julie K., Associate Professor, Ph.D., Florida State University, 1995.

Legier, John T., Associate Professor, Ph.D., Southern Illinois University, 2007.

Parks, Ronald J., Associate Lecturer, M.S., Southern Illinois University, 1995.

Velasco, Tomas, Professor and Interim Director, Ph.D., University of Arkansas, 1991.

Williams, David, Senior Lecturer, M.S.., Southern Illinois University, 2002.

Emeriti Faculty

Chang, Feng-Chang (Roger), Associate Professor, Emeritus, Ph.D., Ohio State University, 1985.

Marusarz, Ronald K., Associate Professor, Emeritus, Ph.D., Southern Illinois University Carbondale, 1999.

Spezia, Carl J., Associate Professor, Emeritus, Ph.D., Southern Illinois University Carbondale, 2002.

Last updated: 04/09/2025