Technical Resource Management

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 (AAS) 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 three delivery formats: 1) traditional on-campus face-to-face classes, 2) hybrid (off-campus and online), and 3) fully online.

General admission to the TRM program requires a 2.0 GPA. The Capstone Option may be available to eligible students who have earned an Associate in Applied Science (AAS) degree or the equivalent. The Capstone Option reduces University Core Curriculum requirements from 39 to 30 hours.

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 Information Systems and Applied Technologies. Contact information may be found at http://isat.siu.edu/undergraduate/technical-management/.

Bachelor of Science Degree 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 Degree Requirements (see University Core Curriculum section). In addition to University Core Curriculum and TRM courses, students can select from a specialization or one of over 60 minors, or they can develop an individualized plan of study that complements their professional aspirations.

Technical Resource Management Major - 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 15 hours of the TRM Core Requirements plus a total of 21 semester hours of TRM Support Courses to be selected from the following: TRM 332, TRM 361, TRM 362, TRM 421, TRM 426, TRM 483, TRM 488, and TRM 490.

Technical Resource Management Major-Health and Safety Management Specialization

(Available only at SIU Off-Campus locations)
This specialization augments the TRM program’s technical management core and builds upon the student’s technical training to open career opportunities as a Safety Technologist. Typically, people in occupational health and safety roles are making worksite assessments to determine risks, identifying potential hazards and recommending controls, evaluating risks and hazard control measures, investigating incidents, maintaining and evaluating incident and loss records, and preparing emergency response plans. This training supports certification by the Council on Certification of Health, Environmental and Safety Technologists (CCHEST), Savoy, Illinois, including Construction Health and Safety Technician and/or Occupational Health and Safety Technician, and meets the blueprint relating to program management, worksite auditing, training, and professional responsibility.

The specialization includes 15 semester hours, as follows: HED 335, HED 345, HED 430, HED 435, and HED 496. See Health Education for course descriptions. The specialization courses are taken to satisfy the Approved Electives requirement.

### Bachelor of Science Degree in Technical Resource Management Requirements

<table>
<thead>
<tr>
<th>Degree Requirements</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>University Core Curriculum Requirements †</td>
<td>41</td>
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<tr>
<td>Requirements for Major in Technical Resource Management</td>
<td>36</td>
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<tr>
<td>TRM Core Requirements (or approved equivalents): TRM 316, TRM 364, TRM 383, TRM 464, and TRM 470</td>
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<tr>
<td>TRM Support Courses, select from: TRM 332, TRM 361, TRM 362, TRM 421, TRM 426, TRM 440, TRM 483, TRM 488, TRM 490, or approved equivalents</td>
<td>6</td>
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<tr>
<td>Approved Electives (specialization, minor, or individualized plan)</td>
<td>15</td>
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<tr>
<td>Career Electives</td>
<td>43</td>
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An Associate in Applied Science degree (AAS) 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 43 hours.

Total: 120

† The Capstone Option reduces University Core Curriculum requirement to 30 hours.

### Technical Resource Management Courses

**TRM259 - Occupational Education** 259-1 to 60 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.

**TRM316 - Apps of Technical Writing** 316-3 Applications of Technical Writing. (Same as ISAT 366 and 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. Restriction: College of Applied Sciences and Arts.

TRM319 - Occupational Internship 319-1 to 15 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.

TRM320 - Work Study Internship 320-1 to 10 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.

TRM332 - Labor-Management Relations 332-3 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.

TRM350 - Technical Career Subject 350-1 to 32 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.

TRM358 - Work Experience Credit 358-1 to 30 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.

TRM359 - Occupational Education 359-1 to 60 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.


TRM363A - Topics-Mgt Field Experience 363A-3 Special Topics in Technical Management-Management Field Experience. 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.

TRM363B - Topics-Research Mgt Appl 363B-3 Special Topics in Technical Management-Research Management Applications. 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.

TRM363C - Topics-Compare Analysis Strats 363C-3 Special Topics in Technical Management-Comparison Analysis of Organizational Strategies in the Professions. 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.

TRM363D - Topics-Current Trends 363D-3 Special Topics in Technical Management-Current Trends. Specialized study for the investigation of management problems relating to the student's career objective. Readings regarding economic trends impacting upon the business or profession. Study of the techniques of employee relationships to include the dynamics and procedures required for managing the work center. Need not be taken sequentially.

TRM363E - Topics-Employee Relations 363E-3 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.

TRM364 - Work Center Management 364-3 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.

TRM383 - Data Apps & Interpretation 383-3 Data Applications and Interpretation. (Same as ISAT 365) 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.

TRM421 - Professional Development 421-3 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: TRM 316 w/C or better or ENGL 102 w/C or better. Restriction: TRM major.

TRM425 - Operations Management 425-3 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. Prerequisite: TRM 383 with a grade of C or better. Restriction: TRM major.

TRM426 - Technology & International Trade 426-3 Technology and International Trade. The international trade of products and services is studied by examining the technology development and transfer concerns of transnational corporations and national governments in industrialized, newly industrialized and developing countries.

TRM440 - Sustainable Enterprises 440-3 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.

TRM464 - Quality Management 464-3 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. Prerequisites: TRM 364 and TRM 383 with grades of C or better. Restriction: TRM Major.

TRM470 - Project Management 470-3 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. Prerequisites: TRM 364 and TRM 383 with grades of C or better. Restriction:
TRM major.

**TRM483 - Quality Measurement** 483-3 Quality Measurement. Specialized study of the design of quality
control for the improvement of processes and to enhance product or service outcomes. Instruction will
focus on the construction of Statistical Process Control (SPC) diagrams and charts appropriate to the
technologies found in various types of work environments. The major course project requires students to
design aspects of an SPC program based on their specialty area. Lecture three hours. Not for graduate
credit. Prerequisite: TRM 383.

**TRM488 - Technical Innovation** 488-3 Technical Innovation. A lecture course intended to educate
students on how to survive and prosper in hyper-innovative work places. Both intrapreneurial and
entrepreneurial aspects will be pursued, as will planned obsolescence and product replacement. Not for
graduate credit. Prerequisite: TRM 316, 383, 364.

**TRM490 - Technical Professional Theory** 490-3 Technical and Professional Theory. A department
honors seminar with challenging assignments and limited enrollment to prepare the student for the
values, needs, demands, ethics, epistemologies, and socioeconomic roles of technical work, technicians,
professional arenas and professional fields. Not for graduate credit. Prerequisite: 3.25 or better GPA in
major, TRM 316 or ISAT 366.