Master of Science (MS) in Information Systems and Technology Management with a specialization in Project Management

Effective July 10, 2017
In the master’s Project Management specialization, information technology professionals assess the current state of technology, including its organizational, legal, ethical, and professional influences, and examine the fundamentals of project management. Specialization topics include the processes, techniques, and tools used to plan, initiate, execute, control, and close projects; project budgeting, procurement, and quality; project plan development; project risk management; and project leadership management. Successful graduates of this specialization gain the skills needed to manage technology projects that meet quality, scope, time, and cost goals.

A University on Top of IT Industry Trends
With the emergence of globalization and outsourcing, the field of information technology poses new challenges to IT professionals who want to advance in their careers. Previously it was enough simply to stay focused on “hard” skills through IT certifications and training. Today, organizations are looking for IT professionals who also understand the business needs of the enterprise, the creative possibilities of technology, and how to integrate that technology into complex enterprise-wide systems. Capella is aware of these trends and continues to adjust its curricula to keep up with the needs of this rapidly changing, dynamic field.

The Capella Approach to IT Education
Capella has designed its programs around the strategic values of the emerging area of IT architecture. Our view is that by keeping the principles of IT architecture as educational guideposts, we can help prepare you to integrate the latest technologies into enterprise-wide business solutions that bring results to your organization. We build upon and expand your technical knowledge while teaching you how to assess, design, and implement value-added solutions.

Knowledge gained through work experience and industry certifications may help you earn academic credit toward your degree through Capella’s Prior Learning Assessment process, offering you potential savings on tuition and time to completion.*

The Project Management Institute (PMI®) Global Accreditation Center (GAC) has accredited Capella’s BS in IT, BS in Business, MS in ISTM, MBA, and PhD in IT Project Management specializations, as well as the combined BS in IT/MS in ISTM option.†

The PMI Global Accreditation Logo is a service mark of Project Management Institute, Inc.

This specialization is offered in the GuidedPath delivery model.

*Residents of Washington may receive credit for prior learning only in the bachelor’s and MBA programs.
†The FlexPath options for the project management specializations are not accredited by PMI-GAC.

This guide is intended to provide an overview of the specialization and is subject to change. Your enrollment counselor can provide updates, details, and Capella’s official University Catalog that specifies your program requirements.
# Career Information

## RELATED EMPLOYMENT SETTINGS TO EXPLORE

- Corporation
- Consulting firm
- Land-based or online college or university
- Military
- Government—local, state, and federal
- Community college

## RELATED JOB TITLES TO EXPLORE*†

- Project manager
- Director of IT
- Project lead
- Project management consultant
- Data processing manager
- Information systems manager
- Management information systems director/manager
- Project director
- IT consultant
- Senior IT manager
- Director of special projects
- Adjunct or part-time faculty

## SPECIALIZATION OUTCOMES

- Lead and manage people and resources
- Communicate effectively with project teams, stakeholders, and sponsors
- Assess project risks
- Demonstrate a strategic alignment between business needs and project outcomes
- Demonstrate compliance with legal, ethical, and professional responsibilities
- Plan, execute, and control project activities to assure outcomes that meet stakeholder expectations

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*Some jobs may prefer or even require a Project Management Professional (PMP) Certification.

†These are examples intended to serve as a general guide. Because many factors determine what position an individual may attain, Capella cannot guarantee that a graduate will secure any specific job title.
Curriculum

• 3 foundational courses
• 12 required courses
• Total program credits: 48 quarter credits
• Total program credits with foundational courses: 60 quarter credits

FOUNDATIONAL COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Quarter Credits</th>
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</thead>
<tbody>
<tr>
<td>ISTM5004</td>
<td>Fundamentals of Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>ISTM5006</td>
<td>Databases and Programming</td>
<td>4</td>
</tr>
<tr>
<td>ISTM5008</td>
<td>Networking Fundamentals</td>
<td>4</td>
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CORE COURSES

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ISTM5002</td>
<td>Communication Skills for Today’s Information Technology Leader</td>
<td>4</td>
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<tr>
<td>ISTM5010</td>
<td>Integration of Information Technology and Business</td>
<td>4</td>
</tr>
<tr>
<td>ISTM5015</td>
<td>Complex Information Technology Global Enterprise Systems: Planning and Management</td>
<td>4</td>
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<tr>
<td>ISTM5020</td>
<td>Leading a Global Information Technology Enterprise: Systems and Security</td>
<td>4</td>
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<tr>
<td>ISTM5025</td>
<td>Analytics, Data Management, and Knowledge Management</td>
<td>4</td>
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<tr>
<td>ISTM5030</td>
<td>Innovation, Leadership, and Ethics</td>
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SPECIALIZATION COURSES

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Quarter Credits</th>
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<tbody>
<tr>
<td>TS5331</td>
<td>Project Management Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>TS5332</td>
<td>Project Management Planning, Execution, and Control</td>
<td>4</td>
</tr>
<tr>
<td>TS5333</td>
<td>Project Budgeting, Procurement, and Quality</td>
<td>4</td>
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<tr>
<td>TS5334</td>
<td>Project Risk Assessment and Control</td>
<td>4</td>
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<tr>
<td>TS5335</td>
<td>Project Leadership and Management</td>
<td>4</td>
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CAPSTONE COURSE

Taken during the learner’s final quarter:

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>ISTM5900*</td>
<td>Information Systems and Technology Management Capstone</td>
<td>4</td>
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*Denotes courses that have prerequisite(s). Refer to the course descriptions for further details.

The courses in this program may require live web conferencing activities and/or learner audio/video recordings. Learners who require assistive technology or alternative communication methods to participate in these activities should contact Disability Services to request accommodations.
Foundational Course Descriptions

**ISTM5004  Fundamentals of Information Systems**  
Learners in this course develop a foundational skillset in information technology by examining the key aspects of information systems, how businesses use such systems, and the ways existing technologies function at home, school, or work. Learners also develop a working knowledge of current and emerging technologies and how businesses use them to maximize results. **Learners without the required IT background must have completed ISTM5004, ISTM5006, ISTM5008 prior to registering for any ISTM course other than ISTM5002. Cannot be fulfilled by transfer.**

**ISTM5006  Databases and Programming**  
This course focuses on the basic principles of databases, and how users, through application programs or direct database queries, are able to store and retrieve information. Learners develop a conceptual understanding of how administrators configure databases so information may be accessed efficiently and securely. Learners will also examine the computer-program-development process, examining how programmers use a programming language to specify the instructions a program executes to accomplish a specific task. **Learners without the required IT background must have completed ISTM5004, ISTM5006, ISTM5008 prior to registering for any ISTM course other than ISTM5002. Cannot be fulfilled by transfer.**

**ISTM5008  Network Fundamentals**  
In this course, learners develop a conceptual understanding of computer networks and how they function. Learners strengthen their understanding of the concepts of network design, network hardware, network configuration, and the basic architecture of local area networks (LANs) and wide area networks (WANs). Learners also explore the ways network administrators construct and configure networks to support user access to the Internet. **Learners without the required IT background must have completed ISTM5004, ISTM5006, ISTM5008 prior to registering for any ISTM course other than ISTM5002. Cannot be fulfilled by transfer.**

Core Course Descriptions

**ISTM5002  Communication Skills for Today's Information Technology Leader**  
In this course, learners create communications using different media across the many functions within a technology enterprise, with a focus on organizations with employees in diverse geographical locations. Learners demonstrate competence in developing different formats for communicating with stakeholders. Learners also create academic communication formats that demonstrate their abilities to communicate research findings. **Must be taken during the first quarter by learners who have been admitted to the MS in Information Systems and Technology Management degree program. Cannot be fulfilled by transfer or prior learning assessment.**

**ISTM5010  Integration of Information Technology and Business**  
This course addresses the importance of aligning IT goals and business goals. Learners develop processes used to identify stakeholders, define core processes, and identify and align IT goals with business goals. Learners also demonstrate the necessary skills for partnering with other functional units and communicating the vision necessary to create this alignment in their organizations. **Prerequisite(s): Learners without the required IT background must have completed ISTM5004, ISTM5006, ISTM5008.**

In this program, you will experience practical, hands-on learning designed around best practices in a safe, interactive virtual lab environment. This virtual platform allows you to develop skills by practicing with tools used in the industry. Learners who take the foundational IT courses have the opportunity to earn exam vouchers for the CompTIA A+ and CompTIA Network+ certifications within the first year of their program.
**ISTM5015  Complex Information Technology Global Enterprise Systems: Planning and Management**  
4 QUARTER CREDITS  
Learners in this course examine and apply management processes used for complex project management in today's rapidly changing technology environments. Learners also develop a plan for an enterprise system and analyze the impact of multiculturalism and diversity on planning and management.

**ISTM5020  Leading a Global Information Technology Enterprise: Systems and Security**  
4 QUARTER CREDITS  
In this course, learners build their knowledge of and identify the complexities of managing the integration of hardware and software, focusing on risk management across enterprise systems. Learners analyze the decision-making processes behind buying versus developing the component parts of these systems.

**ISTM5025  Analytics, Data Management, and Knowledge Management**  
4 QUARTER CREDITS  
In this course, learners explore and demonstrate how to better use data as part of the decision-making processes in business. Learners synthesize concepts of data collection, usability, and accessibility in order to identify ways data becomes part of the broader concepts of business intelligence and knowledge management. Topics also include the importance of visualization in the presentation of data to a variety of stakeholders.

**ISTM5030  Innovation, Leadership, and Ethics**  
4 QUARTER CREDITS  
In this course, learners apply their understanding of leadership theory and ethical frameworks to complex business cases that reflect the need for innovative technology solutions in today's workplace. Learners demonstrate the skills needed to leverage the best in their technology operations, understand the need to collaborate with partners, transform the thinking in their organization, and envision ways IT can enable new business strategy.

### Specialization Course Descriptions

**TS5331  Project Management Fundamentals**  
4 QUARTER CREDITS  
This course focuses on the processes and knowledge areas found in the project management profession. Learners develop and demonstrate their understanding of the project management concepts as defined by the Project Management Institute’s (PMI) *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*, which includes knowledge of the nine project management knowledge areas, including the domains of initiating, planning, executing, controlling, closing projects, and professionalism and ethics.

**TS5332  Project Management Planning, Execution, and Control**  
4 QUARTER CREDITS  
This course covers the elements of project management, including project planning, executing, monitoring, and controlling tools and techniques. Learners identify project requirements and develop a project plan that considers project scope, time, and cost in managing competing project requirements. Learners also demonstrate the elements of work breakdown structures and their importance in developing a project schedule that accurately reflects the work effort required and the assignment of appropriately skilled resources needed to complete each activity.

**TS5333  Project Budgeting, Procurement, and Quality**  
4 QUARTER CREDITS  
In this course, learners examine and demonstrate the fundamental concepts and principles of cost estimation and budgeting; quality planning, management, and control; and procurement life cycle activities as they relate to projects. Learners articulate tools and techniques used in planning, monitoring, reporting, controlling, and managing project cost and explore the concept of earned value management. Finally, learners demonstrate their competency in procurement aspects from planning to acquisition, contracting, and closure.
TS5334  Project Risk Assessment and Control
Learners in this course examine and demonstrate their knowledge of the important elements of risk management, including planning for, identifying, quantifying, analyzing, and controlling risk. Learners develop their knowledge of the systematic process of identifying, analyzing, and appropriately responding to project risk. Learners also apply qualitative and quantitative risk analysis techniques and assess the negative consequences of failing to perform a proper risk analysis.

TS5335  Project Leadership and Management
In this course, learners examine the role and skills required of project leaders across organizations by exploring a wide range of leadership roles, including manager, problem solver, facilitator, trainer, communicator, and advocate. Learners analyze how each of these roles affects the ability to create a cohesive project team, and synthesize a step-by-step approach to leadership and team-building. Finally, learners demonstrate an understanding of leadership ethics, leadership and project strategy, and the relationship between leadership and project management politics.

Capstone Course Description

ISTM5900  Information Systems and Technology Management Capstone
In this course, learners demonstrate proficiency in information systems and technology management by developing and executing a project plan that includes a proposed topic, the associated skills and competencies to be exhibited in the project, and an outline of the project deliverables with completion dates. For MS in Information Systems and Technology Management learners only. Must be taken during the learner’s final quarter. Prerequisite(s): Completion of all required coursework. Cannot be fulfilled by transfer or prior learning assessment.
**Recommended Course Sequence**

This recommended course sequence assumes learners take two courses per quarter. Some learners elect to take fewer or more based on workload and the amount of time available for graduate study. On-time completion for this specialization is 11 active quarters.

### YEAR 1 | COURSES
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Q1 | ISTM5002 Communication Skills for Today’s Information Technology Leader
Q2 | ISTM5010 Integration of Information Technology and Business  
ISTM5015 Complex Information Technology Global Enterprise Systems: Planning and Management
Q3 | ISTM5020 Leading a Global Information Technology Enterprise: Systems and Security  
TS5331 Project Management Fundamentals
Q4 | ISTM5025 Analytics, Data Management, and Knowledge Management  
TS5332 Project Management Planning, Execution, and Control

### YEAR 2 | COURSES
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Q5 | TS5333 Project Budgeting, Procurement, and Quality  
TS5334 Project Risk Assessment and Control
Q6 | ISTM5030 Innovation, Leadership and Ethics  
TS5335 Project Leadership and Management
Q7 | ISTM5900 Information Systems and Technology Management Capstone
Financial Aid

Capella University offers assistance to learners who qualify and would like to secure educational funding to help finance their academic program. A number of options are available, given the diverse needs and backgrounds of prospective learners. Options include:

- Federal Direct Stafford Loan Program
- Federal Direct PLUS Loan Program
- Non-federal loans through preferred lenders and financial institutions
- Capella scholarships
- External scholarships
- Veterans’ educational benefits and U.S. armed forces discounts
- Corporate and higher education alliances
- Employer tuition reimbursement

Regarding loan programs, interest rates for Stafford student loans are low compared to other types of consumer loans, and repayment can be deferred until after graduation. In compliance with federal and state laws, Capella University has established policies for all learners regarding satisfactory academic progress, which is necessary for financial aid eligibility.
Academic Leadership

Rhonda Capron, EdD
Dean
Dr. Rhonda Capron is an accomplished leader with remarkable business acumen, extensive academic experience and professional relevance within the confluence of today’s transformative marketplace. She brings a unique blend of background and experience to Capella as a seasoned executive and higher education leader with more than 15 years of experience successfully leading strategic initiatives and operations within high-tech businesses. She also has 10 years in higher education, including extensive, hands-on experience teaching; faculty and staff leadership; academic programming; curriculum development; and strategic planning. Dr. Capron joined Capella in 2016. She was previously the academic dean of the School of Business at University of Phoenix. Prior to that position, she held a number of academic leadership roles at William Jessup University in Rocklin, California. In addition she has an extensive background in both the business sector and the military. Rhonda was vice president of support services and software as a service at Oracle Corporation, and she served as the deputy director for operations within the Departments of Army and Energy.

Bill Dafnis, PhD
Associate Dean
Dr. Bill Dafnis is the associate dean of technology in Capella University’s School of Business and Technology and faculty chair for undergraduate technology. Bill joined Capella in 2014 to serve as faculty chair in the ABET-accredited BS in IT program. Prior to joining Capella, Bill served in faculty and academic leadership roles at other academic institutions. Preceding his academic career, Bill traversed a distinguished 20-year profession with the Chicago-based media conglomerate Tribune Company in leadership roles inclusive of information technology, project management, and operations management. Bill holds a PhD in Information Systems from Nova Southeastern University, Master of Science in Information Technology with a security focus from Carnegie Mellon University, Master of Business Administration from Lake Forest College, and Bachelor of Arts from the University of Illinois and is certified as a Project Management Professional (PMP). His research interests include the intersection of disruptive change and innovation planning, cloud computing economic models, business process modeling, project management, and information security.

Melissa Zgola, MS
Faculty Chair
Melissa Zgola joined Capella University in 2007 as an adjunct faculty member for the School of Technology and became a core faculty member in 2008, teaching courses in networking technology and software architecture. In 2012, she was named faculty chair for the Bachelor of Science in Information Technology program in the School of Business and Technology and served in that role until 2014 when she became faculty chair for the Master of Science in Information Systems and Technology Management and the MS in Analytics programs. Prior to joining Capella, Melissa spent several years as an online facilitator, instructor, and program director with The Art Institute Online, the Pittsburgh Technical Institute and ITT Technical Institute. She also served as an engineering technician for the Department of Labor, and senior system analyst for the University of Pittsburgh. She holds a BA in Psychology and an MA in Counseling from West Virginia University, and an MS in Information Science from the University of Pittsburgh.
Move Forward with Capella University

**WORKING SCHOLARS**
Capella provides an online, flexible learning environment for working adults who are also determined scholars. That connection between academic and professional work infuses the entire Capella experience—from the faculty we recruit to the course projects you complete. The theories discussed in the courseroom are designed to develop working knowledge for everyday situations.

**AN ACCREDITED UNIVERSITY**
Our accreditation* is an assurance to students, employers, and the public that Capella University meets or exceeds established standards for quality of faculty, curriculum, and learner services. It is also an important factor in the ability to transfer credits among higher education institutions. Regional accreditation, the type held by Capella, is the most common type for major public, state, and private institutions in the United States.

**VALUING YOUR KNOWLEDGE AND EXPERIENCE**
Adults bring a wealth of experience and learning to their education. Capella courses are designed to bring out your perspectives just as you gain from others’ ideas. Your knowledge can also be worth time and money: An enrollment counselor can help you estimate how much of your prior learning may apply toward your Capella degree program.

*ACCREDITATION
Capella University is accredited by the Higher Learning Commission.

HIGHER LEARNING COMMISSION
https://www.hlcommission.org
800.621.7440

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