Interest in the use of mobile technology among organizations has seen a strong, upward trend over the past few years. The proliferation of smartphone and tablet devices has presented organizations with new challenges, creating and developing a coherent strategy associated with this new innovation.

In order to create this strategy, organizations will need an understanding of the mobile industry in general and specific technologies supporting the trend. People capable of creating and maintaining mobile technology strategies are needed, but the in-depth education necessary for these people is limited.

The Graduate Certificate in Mobile Business and Technology is designed to cover the mobile industry as well as the technologies, devices, operating systems, user interface design, and tools of mobile applications. The focus will be on the mobile industry and technologies that allow an organization to make decisions in this dynamic domain.

Admission requirements

Prospective students may apply at any time by completing the Graduate Application for Admission found online at apply.mst.edu.

The graduate certificate program is open to all individuals holding a bachelor’s, master’s or Ph.D. degree in areas such as business, social sciences, technology, engineering, or related disciplines. Students must also have the required prerequisites for the courses in the program.

In order to receive a Graduate Certificate, the student must have an average graduate cumulative grade point of 3.0 or better on a 4.0 scale in the certificate courses taken. Students admitted only to the certificate program will have non-degree graduate status but will earn graduate credit for the courses they complete. Students will be given three years to complete the certificate as long as a B or better average is maintained in the courses taken.

If a student completes the four graduate certificate courses with a grade of B or better in each of the courses taken, the student will, upon application, be admitted to the Master of Business Administration or to the Master of Science in Information Science and Technology. The certificate courses taken by students admitted to the program will count toward the student’s MBA or M.S. degree.
COURSE DESCRIPTIONS

REQUIRED CORE COURSES

IS&T 5335 Fundamentals of Mobile Technology for Business
A broad overview of mobile technology use in business environments. Topics include the mobile industry, mobile network and wireless standards, mobile devices, mobile web design and app development, social and user experience issues, mobile marketing and commerce.

Prerequisite: Junior standing or above.

ERP 5240 Enterprise Application Development and Software Security
This course provides a conceptual foundation and hands-on experience in web and mobile-based (HTML5) applications development deployed through an enterprise platform. Enterprise development tools, such as SAP HANA Cloud Platform, will be used to build these apps. The course also covers software cybersecurity from a web and mobile perspective.

Prerequisites: Programming knowledge and either ERP 2110 or preceded or accompanied by ERP 5110.

ELECTIVE COURSES (CHOOSE TWO)

ERP 5210 Performance Dashboard, Scorecard & Visualization
This course will study different performance management systems including dashboards, management cockpit, scorecards, and strategy maps in an organization. SAP’s BW, Business Objects Xcelsius, Crystal Reports, Sybase Unwired Platform will be used to develop the applications.

Prerequisite: ERP 2110 or preceded or accompanied by ERP 5110.

ERP 5310 Supply Chain in ERP
The course studies the need for supply chain integration and the challenges of managing complex interfaces using the systems approach for the planning, analysis, design, development, and evaluation of supply chain. SAP’s ERP ECC, SCM, BW, and Sybase Unwired Platform are used to deploy SCM apps.

Prerequisite: ERP 2110 or preceded or accompanied by ERP 5110.

ERP 6610 Adv Customer Relationship Mgt ERP
The course emphasizes identification (targeting), acquisition, retention, and development (expansion) of (profitable) customers, as well as effective and efficient management of customers, using IT. SAP CRM, SAS BI tools, and mobile application development are used to illustrate concepts in the class. Research paper and presentation required.

Prerequisite: ERP 2110 or preceded or accompanied by ERP 5110.

IS&T 5652 Advanced Web Development
Advanced web development techniques to provide dynamic interaction; methods for extracting and delivering dynamic information to/from web servers - a hands-on approach. Emphasis on interaction with servers; mobile software development; processing of graphics and web video. Project work is required.

Prerequisites: IS&T 4654; one of IS&T 1551, IS&T 1561.

IS&T 5886 Prototyping Human-Computer Interactions
This course explores novel HCI and UX technologies as well as methods and tools for creating system prototypes, including best practices and guidelines for optimal user experiences. Example concepts include mobile applications, behavioral monitoring, gamification, natural user interfaces, haptics, and computers as social actors.

Prerequisite: Preceded or accompanied by IS&T 5885.

* Curriculum is subject to change. Please contact the department for up-to-date information on courses. Other courses approved by the department may be substituted for any of the above listed courses on a case-by-case basis. The administrative coordinators must approve the substitution prior to enrolling in the course.