

**LAWRENCE TECHNOLOGICAL
UNIVERSITY
GRADUATE CATALOG
2010–11**

Announcement of General Information and Courses in the Colleges of

Architecture and Design
Arts and Sciences
Engineering
Management

For the Academic Year 2010–11

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VISIT THE CAMPUS

Lawrence Technological University welcomes prospective students, family members, employers, and others to visit. While on campus, prospective students are encouraged to discuss their educational plans with admissions staff and to meet current Lawrence Tech students, professors, or deans. Call the Office of Admissions toll free at 800.CALL.LTU (800.225.5588) to arrange an appointment or to request additional information. The Office of Admissions is open (except holidays) Monday – Thursday, 8 a.m. – 7:30 p.m., and Friday, 8 a.m. – 4:30 p.m. If you plan to visit during the summer, please contact the Office of Admissions for summer hours.

Lawrence Tech's 102-acre full-service campus provides a full range of academic, recreational, and residential facilities, along with convenient access to major freeways. Southeastern Michigan is one of America's hubs of business and commerce, the site of some of the world's outstanding technological accomplishments.

ABOUT THIS GRADUATE CATALOG

This *Graduate Catalog* is a compendium of opportunities available at Lawrence Technological University. It includes information on academic programs, requirements for admission and graduation, rules, regulations, and expectations. Failure to read this *Graduate Catalog* does not excuse students from the requirements and regulations described herein. While every effort is made to provide accurate and current information, the University reserves the right to change rules, policies, fees, curricula, courses, and other programs described to reflect faculty or administrative action. This *Graduate Catalog* is accurate as of the publication date. Course descriptions are available online through BannerWeb at <http://my.ltu.edu>. For information about undergraduate programs, refer to Lawrence Tech's *Undergraduate Catalog*.

STUDENT IMAGES

Lawrence Technological University reserves the right to use images of student work and of students on campus, or at any of its offsite locations, for the purpose of promoting the University. Students not wishing to be photographed should notify the registrar in writing when they register each semester.

Academic Schedules

SPRING 2009 SEMESTER

November 17 – 21	Advance registration
November 22 – January 11	Regular registration
January 11	Last day to register for traditional semester and College of Management courses without a late fee
January 12	Traditional semester and College of Management courses begin; add/drop period begins; late registration fee applies
January 19	Martin Luther King Day Celebration*
January 23	Last day to drop traditional semester courses with refund (no refund for classes dropped after January 23)
January 24	Withdrawal period begins for traditional courses; late transaction fee applies for each course added
January 22	Last day to drop College of Management courses with refund (no refund for classes dropped after January 22)
January 23	Withdrawal period begins for College of Management courses; late transaction fee applies for each course added
March 2	Last day to register for traditional and College of Management courses (regardless of when they start)
March 7	Last day of classes before mid-semester break
March 9 – March 14	Mid-semester break
March 18	Midterm grades due for first-year students
March 27	Last day to withdraw from College of Management courses
April 6	Last day to withdraw from traditional semester courses
April 18	Last day of College of Management classes before final exams
April 20 – 25	College of Management final exams
April 25	Last day of College of Management semester
May 2	Last day of traditional semester classes before final exams
May 4 – 9	Traditional semester final exams
May 13	Grades due
May 17	Commencement
May 18	Spring 2009 semester ends

SUMMER 2009 SEMESTER

April 20 – 24	Advance registration
April 25 – May 12	Regular registration
May 12	Last day to register for traditional semester and College of Management courses without a late fee
May 13	Traditional semester and College of Management courses begin; add/drop period begins; late registration fee applies
May 26	Last day to drop traditional semester and College of Management courses with refund (no refund for classes dropped after May 26)
May 27	Withdrawal period begins for traditional semester and College of Management courses; late transaction fee applies for each course added
May 23	Last day of classes before Memorial Day
May 26	Classes resume
June 29	Last day to register for traditional and College of Management courses (regardless of when they start)
July 3	No classes – Fourth of July
July 6	Classes resume
July 8	Last day to withdraw from traditional semester and College of Management courses
July 23	Summer 2009 semester ends
July 29	Grades due

FALL 2009 SEMESTER

April 20 – April 24	Advance registration
April 25 – August 25	Regular registration
August 25	Last day to register for traditional semester courses without a late fee
August 26	Traditional semester courses begin; add/drop period begins late registration fee applies
September 5 – 7	Labor Day break
September 8	Classes resume
September 8	Last day to register for College of Management courses without a late fee
September 8	Last day to drop traditional semester courses with refund (no refund for classes dropped after September 8)
September 9	College of Management courses begin; add/drop period begins; late registration fee applies for College of Management courses
September 9	Withdrawal period begins for traditional courses; late transaction fee applies for each course added
September 21	Last day to drop College of Management courses with refund (no refund for classes dropped after September 21)
September 22	Withdrawal period begins for College of Management courses; late transaction fee applies for each course added
September 30	Last day to register for traditional and College of Management courses (regardless of when they start)
October 21	Midterm grades due for first-year students
November 11	Last day to withdraw from College of Management courses
November 18	Last day to withdraw from traditional semester courses
November 25	Last day of classes before Thanksgiving break
November 30	Classes resume
December 5	Last day of College of Management classes before final exams
December 12	Last day of traditional semester classes before final exams
December 7 – December 12	College of Management final exams
December 12	Last day of College of Management semester
December 14 – 19	Traditional semester final exams
December 19	Fall 2009 semester ends
December 23	Grades due

SPRING 2010 SEMESTER

November 16 – November 20	Advance registration
November 21 – January 10	Regular registration
January 10	Last day to register for traditional semester and College of Management courses without a late fee
January 11	Traditional semester and College of Management courses begin; add/drop period begins; late registration fee applies
January 18	Martin Luther King Day Celebration*
January 21	Last day to drop College of Management courses with refund (no refund for classes dropped after January 21)
January 22	Withdrawal period begins for College of Management courses; late transaction fee applies for each course added
January 22	Last day to drop traditional semester courses with refund (no refund for classes dropped after January 22)
January 23	Withdrawal period begins for traditional courses; late transaction fee applies for each course added
March 1	Last day to register for traditional and College of Management courses (regardless of when they start)
March 6	Last day of classes before mid-semester break
March 8 – March 13	Mid-semester break
March 15	Midterm grades due for first-year students
March 26	Last day to withdraw from College of Management courses
April 2	Last day to withdraw from traditional semester courses
April 17	Last day of College of Management classes before final exams
April 19 – 24	College of Management final exams
April 24	Last day of College of Management semester
May 1	Last day of traditional semester classes before final exams
May 3 – 8	Traditional semester final exams
May 12	Grades due
May 16	Commencement
May 16	Spring 2010 semester ends

SUMMER 2010 SEMESTER

April 19 – April 23	Advance registration
April 26 – May 11	Regular registration
May 11	Last day to register for traditional semester and College of Management courses without a late fee
May 12	Traditional semester and College of Management courses begin; add/drop period begins; late registration fee applies
May 25	Last day to drop traditional semester and College of Management courses with refund (no refund for classes dropped after May 25)
May 26	Withdrawal period begins for traditional semester and College of Management courses; late transaction fee applies for each course added
May 28	Last day of classes before Memorial Day
June 1	Classes resume
June 30	Last day to register for traditional and College of Management courses (regardless of when they start)
July 7	Last day to withdraw from traditional semester and College of Management courses
July 22	Summer 2010 semester ends
July 28	Grades due

FALL 2010 SEMESTER

April 19 – April 23	Advance registration
April 24 – August 24	Regular registration
August 24	Last day to register for traditional semester courses without a late fee
August 25	Traditional semester courses begin; add/drop period begins late registration fee applies
September 5 – 6	Labor Day break
September 7	Classes resume
September 7	Last day to register for College of Management courses without a late fee
September 7	Last day to drop traditional semester courses with refund (no refund for classes dropped after September 7)
September 8	College of Management courses begin; add/drop period begins; late registration fee applies for College of Management courses
September 8	Withdrawal period begins for traditional courses; late transaction fee applies for each course added
September 20	Last day to drop College of Management courses with refund (no refund for classes dropped after September 21)
September 21	Withdrawal period begins for College of Management courses; late transaction fee applies for each course added
September 30	Last day to register for traditional and College of Management courses (regardless of when they start)
October 20	Midterm grades due for first-year students
November 10	Last day to withdraw from College of Management courses
November 17	Last day to withdraw from traditional semester courses
November 24	Last day of classes before Thanksgiving break
November 29	Classes resume
December 4	Last day of College of Management classes before final exams
December 11	Last day of traditional semester classes before final exams
December 6 – 11	College of Management final exams
December 11	Last day of College of Management semester
December 13 – 18	Traditional semester final exams
December 18	Fall 2009 semester ends
December 22	Grades due

SPRING 2011 SEMESTER

November 15 – November 19	Advance registration
November 20 – January 9	Regular registration
January 9	Last day to register for traditional semester and College of Management courses without a late fee
January 10	Traditional semester and College of Management courses begin; add/drop period begins; late registration fee applies
January 17	Martin Luther King Day Celebration*
January 21	Last day to drop traditional semester courses with refund (no refund for classes dropped after January 21)
January 22	Withdrawal period begins for traditional courses; late transaction fee applies for each course added
January 20	Last day to drop College of Management courses with refund (no refund for classes dropped after January 20)
January 21	Withdrawal period begins for College of Management courses; late transaction fee applies for each course added
March 1	Last day to register for traditional and College of Management courses (regardless of when they start)
March 5	Last day of classes before mid-semester break
March 7 – March 12	Mid-semester break
March 14	Midterm grades due for first-year students
March 21	Last day to withdraw from College of Management courses
April 4	Last day to withdraw from traditional semester courses
April 16	Last day of College of Management classes before final exams
April 18 – April 23	College of Management final exams
April 23	Last day of College of Management semester
April 30	Last day of traditional semester classes before final exams
May 2 – 7	Traditional Semester Final Exams
May 11	Grades due
May 15	Commencement
May 15	Spring 2011 semester ends

SUMMER 2011 SEMESTER

April 18 – April 23	Advance registration
April 24 – May 17	Regular registration
May 17	Last day to register for traditional semester and College of Management courses without a late fee
May 18	Traditional semester and College of Management courses begin; add/drop period begins; late registration fee applies
May 27	Last day of classes before Memorial Day
May 31	Classes resume
May 31	Last day to drop traditional semester and College of Management courses with refund (no refund for classes dropped after May 31)
June 1	Withdrawal period begins for traditional semester and College of Management courses; late transaction fee applies for each course added
June 30	Last day to register for traditional and College of Management courses (regardless of when they start)
July 13	Last day to withdraw from traditional semester and College of Management courses
July 28	Summer 2011 semester ends
August 3	Grades due

FALL 2011 SEMESTER

April 18 – April 23	Advance registration
April 24 – August 30	Regular registration
August 30	Last day to register for traditional semester courses without a late fee
August 31	Traditional semester courses begin; add/drop period begins; late registration fee applies
September 3	Last day of classes before Labor Day recess
September 6	Classes resume
September 6	Last day to register for College of Management courses without a late fee
September 7	College of Management courses begin; add/drop period begins; late registration fee applies for College of Management courses
September 14	Last day to drop traditional semester courses with refund (no refund for classes dropped after September 14)
September 15	Withdrawal period begins for traditional courses; late transaction fee applies for each course added
September 19	Last day to drop College of Management courses with refund (no refund for classes dropped after September 19)
September 20	Withdrawal period begins for College of Management courses; late transaction fee applies for each course added
September 30	Last day to register for traditional and College of Management courses (regardless of when they start)
October 26	Midterm grades due for first-year students
November 16	Last day to withdraw from College of Management courses
November 30	Last day to withdraw from traditional semester courses
November 23	Last day of classes before Thanksgiving break
November 28	Classes resume
December 3	Last day of College of Management classes before final exams
December 17	Last day of traditional semester classes before final exams
December 5 – December 10	College of Management final exams
December 10	Last day of College of Management semester
December 19 – December 23	Traditional semester final exams
December 23	Fall 2011 semester ends
December 28	Grades due

SPRING 2012 SEMESTER

November 14 – November 19	Advance registration
November 20 – January 15	Regular registration
January 15	Last day to register for traditional semester and College of Management courses without a late fee
January 16	Traditional semester and College of Management courses begin; add/drop period begins; late registration fee applies
January 16	Martin Luther King Day Celebration*
January 27	Last day to drop traditional semester courses with refund (no refund for classes dropped after January 27)
January 28	Withdrawal period begins for traditional courses; late transaction fee applies for each course added
January 26	Last day to drop College of Management courses with refund (no refund for classes dropped after January 26)
January 27	Withdrawal period begins for College of Management courses; late transaction fee applies for each course added
March 1	Last day to register for traditional and College of Management courses (regardless of when they start)
March 10	Last day of classes before mid-semester break
March 12 – March 17	Mid-semester break
March 19	Midterm grades due for first-year students
March 26	Last day to withdraw from College of Management courses
April 9	Last day to withdraw from traditional semester courses
April 14	Last day of College of Management classes before final exams
April 16 – April 21	College of Management final exams
April 21	Last day of College of Management semester
May 5	Last day of traditional semester classes before final exams
May 7 – 12	Traditional semester final exams
May 16	Grades due
May 20	Commencement
May 20	Spring 2012 semester ends

SUMMER 2012 SEMESTER

April 16 – April 21	Advance registration
April 22 – May 15	Regular registration
May 15	Last day to register for traditional semester and College of Management courses without a late fee
May 16	Traditional semester and College of Management courses begin; add/drop period begins; late registration fee applies
May 30	Last day to drop traditional semester and College of Management courses with refund (no refund for classes dropped after May 30)
May 31	Withdrawal period begins for traditional semester and College of Management courses; late transaction fee applies for each course added
May 25	Last day of classes before Memorial Day
May 29	Classes resume
June 30	Last day to register for traditional and College of Management courses (regardless of when they start)
July 11	Last day to withdraw from traditional semester and College of Management courses
July 26	Summer 2012 semester ends
August 1	Grades due

NOTES ON ALL SCHEDULES

The University reserves the right to make adjustments to the academic calendar as necessary.

For courses that start or end at times other than indicated or are of a different length, DIFFERENT dropping, adding, and refund dates apply. It is the student's responsibility to be aware of these dates. They are available on the website of the Office of the Registrar at www.ltu.edu/registrar_office/index.asp or by calling the Office of Enrollment Services at 248.204.2280.

*The University is open and classes are held on Martin Luther King Day. To afford all members of the University community an opportunity to participate in the Freedom Walk celebrating Dr. Martin Luther King's life and legacy, students, faculty, and staff, upon request, may be excused from any scheduled classes, office hours, meetings, etc., from 11 a.m. – 1 p.m. Temporary help, substitute instruction, rescheduling, etc., will be provided as needed. During this period, all mandatory activities such as exams, presentations, or other graded activities will be deferred, although assignments may be made by email for subsequent sessions.

For Your Competitive Edge

Lawrence Technological University is an independent, co-educational accredited university founded in 1932 and offering over 80 academic programs at the associate, baccalaureate, master's, and doctoral degree levels. The University is composed of Colleges of Architecture and Design, Arts and Sciences, Engineering, and Management. Approximately 4,500 students are enrolled in full-time, part-time, day, evening, weekend, online, credit, and non-credit programs.

Lawrence Tech combines the benefits of a close, caring, small college atmosphere with the academic depth and scope of a larger university. Lawrence Tech takes a personal approach to education, and the University attracts students who generally have made some big plans for themselves. They're highly motivated students with a tremendous will to succeed, to excel, and to seek out the best in whatever they do.

Lawrence Tech has a reputation for excellence. Most students claim that the University's programs are rigorous and challenging – programs that unapologetically demand commitment. At the same time, as a result of their educational preparation, Lawrence Tech graduates report (in numbers well above national norms) that they arrive in the workplace feeling prepared and ready to do their jobs.

Independent studies also confirm that Lawrence Tech students rapidly achieve placement success. Most Lawrence Tech students are employed within one month of graduating. The American Society of Employers ranked Lawrence Tech first in its class as a preferred provider of graduates to Southeastern Michigan employers. *Standard and Poor's* has historically ranked Lawrence Tech in the top third of all colleges and universities providing the leaders of America's most successful businesses.

The heritage and educational philosophy of the University is reduced to just three words in the University motto, adopted shortly after Lawrence Tech was founded in 1932 – “theory and practice.” It means that Lawrence Tech seeks to explain not only why something should work, but how it works in real situations and applications.

Much of the student's learning in this way will be gained directly from Lawrence Tech's professors. Many Lawrence Tech faculty have years of successful industrial and professional experience in addition to academic credentials from some of the nation's top universities and colleges. They've learned what succeeds in the “real” world, and they'll try to make sure that students do, too.

In addition, there is unusually close interaction between the University and the professions that its students and graduates serve. Assuring that academic programs provide students with the types of contemporary skills employers value is a special goal.

Another attribute is the University's location in close proximity to some of the world's leading industrial, technological, business, and scientific enterprises. The relationship is more than geographic – it assures the University's participation in “cutting edge”

advancements and “front office” accessibility by students interested in co-op, part-time, and networking opportunities. Over 200 *Fortune 500* corporations have headquarters or major operations within a half-hour’s drive of Lawrence Tech’s campus.

Finally, Lawrence Tech students are strongly encouraged to interact with the professional world throughout their academic program. Dozens of professional societies are active on campus and help students network with men and women already working in specific fields. Many of the academic programs also require participation in professional projects that seek to solve real problems facing practicing architects, engineers, managers, scientists, and others. The projects expose students to a host of real-world challenges, and Lawrence Tech students regularly earn top awards in competitions that pit them against students from other colleges and universities throughout the hemisphere.

There is an intangible “spirit” at Lawrence Tech – an earnest spirit of student and faculty enthusiasm for learning and living, and a spirit of motivation and desire to excel. It’s not confined to the classroom or the laboratory; it’s an all encompassing feeling – both a reality and an ideal. Consider Lawrence Tech. Share the spirit!

MISSION, VALUES, VISION, AND CAUSE

Lawrence Technological University was founded as an independent nonprofit institution of higher learning. On a regular basis, the University community – including trustees, administrators, staff, faculty, students, and alumni – meets to review, establish, and achieve the ambitious goals set forth in the Strategic Plan, to reflect upon hopes for the future, and to elucidate the purposes for which Lawrence Tech operates and serves. The latest edition of Lawrence Tech’s Strategic Plan can be viewed on www.ltu.edu/strategicplan.

Part of this planning process is to review and direct the evolution of the mission, values, vision, and cause statements that guide Lawrence Tech’s progress. These statements are:

Mission

To develop leaders through innovative and agile programs embracing theory and practice.

Values

Theory and Practice
Teamwork and Trust
Character and Integrity

Vision

To be a pre-eminent private university producing leaders with an entrepreneurial spirit and global view.

Cause

The intellectual development and transformation of our students into critical thinkers, leaders, and lifelong learners.

The Lawrence Tech community believes in open, honest communication within an active learning environment that:

1. Is committed to academic excellence, diversity, and the development of the whole person.
2. Anticipates and meets the needs of our constituents: students, faculty and staff, alumni, donors, and industry neighbors.
3. Creates leadership opportunities for the growth and development of a diverse faculty and staff.
4. Links theory and practice with innovative programs and delivery.

ACCREDITATION AND MEMBERSHIPS

Lawrence Technological University is accredited by the Higher Learning Commission and a member of the North Central Association (www.ncahigherlearningcommission.org, 312.263.0456). The NCA accreditation report is on file in the University's library and is available for public review by patrons. Various graduate and undergraduate degree programs in architecture, interior architecture, imaging, business administration and management, chemistry, and engineering are additionally accredited through appropriate national professional agencies.

Lawrence Tech's institutional memberships include:

American Society for Engineering Education
Association of American Colleges and Universities
Association of Collegiate Business Schools and Programs
Association of Collegiate Schools of Architecture
Association of Independent Colleges and Universities of Michigan

The University is also a member of:

Advanced Acceptance Program
American Association of Collegiate Registrars and Admissions Officers
American Association of University Administrators
American Council on Education
Association of College Administration Professionals
Association of College Admissions Counselors (national, Michigan, and Ohio)
Association of Governing Boards of Universities and Colleges
Automation Alley
College Board
Council for Higher Education Accreditation
Engineering Society of Detroit
International Assembly for Collegiate Business Education
National Association of Independent Colleges and Universities
Michigan Association for Foreign Student Affairs
Michigan Association of Collegiate Registrars and Admissions Officers
Michigan Campus Compact

Michigan Student Financial Aid Administrators
Midwest Association of Student Financial Aid Administrators
National Association for Foreign Student Affairs
National Association of Student Financial Aid Administrators

Lawrence Tech is also a member of nearly all chambers of commerce in the surrounding counties of Oakland, Wayne, and Macomb, including Southfield and Greater Detroit, and the U.S. Chambers of Commerce.

Faculty and staff are additionally members of a wide variety of local, state, and national professional organizations appropriate to their disciplines. Professional organizations with active student chapters at Lawrence Tech are listed in the Services for Students section of this Catalog.

DAY, EVENING, WEEKEND, AND ONLINE CONVENIENCE

Lawrence Tech's graduate programs are designed for traditional students as well as for working professionals. All are offered in the evenings and several are also available on weekends. Many graduate classes are offered in a hybrid format, where half of the scheduled classes meet in a classroom and half online. Other graduate classes are offered completely online. The University's bachelor's degree classes are offered in day and evening schedules that complement each other. Lawrence Tech is one of only a few universities to offer a complete selection of bachelor's and graduate degree programs in the evening. No stranger to providing the convenience of evening classes, Lawrence Tech pioneered some of the nation's first such programs in 1932.

Graduate and undergraduate classes are usually offered on a semester calendar – two semesters of 16 weeks. The College of Management offers programs in three to 13-week segments throughout the year. The fall semester begins in late August and ends in mid-December. The spring semester begins in January and ends in mid-May. There is also a summer session that offers students the opportunity to accelerate and continue academic progress or make up deficiencies. Certain programs may also be offered on special schedules that accelerate class meetings over shorter periods. Consult the registrar about these opportunities.

CLASSES AND FACULTY

Lawrence Tech's moderate size encourages close interaction between students, faculty, and staff. Classes are generally small, especially for upperclassmen, and individual initiative is stressed.

Lawrence Tech has over 400 full- and part-time faculty members. Exemplifying the University motto of "theory and practice," in addition to academic experience, many also bring a wealth of personal "real-world" research, business, or industrial experience to the classroom or laboratory. In addition to courses taught by Lawrence Tech's full-time professional faculty, it isn't unusual for students in appropriate disciplines to take classes taught by adjunct faculty who are successful corporate executives, practicing accountants, managers, entrepreneurs, engineers, architects, attorneys, and scientists. Such exposure is

deliberate on the part of the University and seeks to help students develop an awareness of the most current “real-world” problem-solving applications of their academic studies.

Lawrence Tech students find that their professors are normally easily accessible and that they are eager to discuss individual questions, academic progress, or concerns outside of class. The University has a tradition of an “open door” policy with faculty, department chairpersons, deans, the president, and other administrative staff.

DIRECT STUDENT INTERACTION

The successful Lawrence Tech student generally arrives on campus with a full measure of ability and self-initiative. Self-initiative is Lawrence Tech’s term for a proper combination of motivation and self-reliance. These students appreciate the institutional position that the University exists for, and interacts with, the student – not relatives, spouses, or friends wishing to represent them. The fact that Lawrence Tech students are of a maturity that requires no such representation helps ensure that they are prepared for responsible full- or part-time employment during their academic career and, following graduation, for professional employment or continued study.

AFTER GRADUATION

Lawrence Tech alumni include a distinguished group of engineers, entrepreneurs, architects, scientists, business executives, managers, technicians, attorneys, physicians, governmental officials, educators, and others holding key positions throughout the United States and around the world.

About 80 percent of Lawrence Tech’s less than 30,000 degree-holding alumni reside in Michigan and the Midwest, but alumni also live in nearly every state and territory, as well as in Aruba, Australia, the Bahamas, Brazil, Canada, China, Colombia, Ecuador, England, Finland, France, Germany, Greece, Hong Kong, India, Iran, Ireland, Israel, Japan, Jordan, Lebanon, Malaysia, Mexico, Nigeria, Norway, Pakistan, Puerto Rico, Saudi Arabia, Scotland, Singapore, Taiwan, Thailand, United Arab Emirates, and United Kingdom.

Lawrence Tech’s Alumni Association is the international forum for active graduates. The Association hosts a website, www.ltu.edu/alumni that provides access to everything from lifetime email accounts and events calendars to job search assistance. The Association holds meetings and sponsors a variety of activities and services for members in Southeastern Michigan and formal and informal chapters elsewhere in Michigan and other states, including Arizona, California, Florida, and Georgia. Several chapters based on academic interest are also active. The Office of Alumni Relations coordinates alumni activities and serves as a campus liaison for alumni worldwide.

CONTINUING EDUCATION AND PROFESSIONAL

Continuing education and professional development are vital components in career development and are reflected in today's critical need to prepare for the future. Lawrence Tech's Professional Development Center assists organizations and individuals in maintaining their competitive edge in today's marketplace by increasing skills, knowledge, and productivity, whether focused on technical, production, managerial, administrative, or executive issues. Lawrence Tech offers many special non-degree academic opportunities. Services range from one-time onsite training sessions to customized development of entire training curricula. The Professional Development Center utilizes a range of resources, calling upon the extensive skills and talents of a variety of consultants, instructors, curriculum designers, trainers, and educational developers, whose services are complemented by a support staff that works closely with every client.

Working with the colleges of the University, the Professional Development Center designs, develops, and delivers non-degree credit programs in Six Sigma, lean training, project management, leadership and executive coaching, and insurance studies. Other services include:

- Public programs in the form of seminars, workshops, conferences, and symposia which serve the professional development needs of alumni and the University's constituent audiences;
- Employee development and training programs, which are typically offered off-campus to business, industry, government, and professional associations;
- Mentoring and career coaching.
- Consulting.

For further information on professional development programs and/or related meeting services, contact the Professional Development Center at 248.204.4050.

Your Campus and Community

Lawrence Technological University's park-like 102-acre campus continues to expand and now includes 14 major buildings. An exciting program of improvements continues throughout the campus and includes the new A. Alfred Taubman Student Services Center, which provides a convenient centralized student service location, meeting rooms, and more.

Lawrence Tech's location is considered by many to be among the University's greatest assets, providing many nearby opportunities for students to network with practicing professionals, participate in career-related organizations, and find internships, co-op experiences, and full- and part-time employment during college and after graduation.

Located near the exact center of population of southeastern Michigan, the University is conveniently situated in the Oakland County city of Southfield, a suburban community of more than 78,000 people. For visitors traveling by car, the campus is about 30 minutes northwest of downtown Detroit. It is also about 30 minutes northeast of Detroit Metropolitan Airport. Lawrence Tech is easily reached via the interstate highway system and is situated at the intersection of West Ten Mile Road and Northwestern Highway (M-10, the Lodge Freeway), just south of Interstate 696.

The campus is at the center of the world of real work, real problems to be solved, and real possibilities for a full professional and cultural life. Southeastern Michigan is a hub of American business and industry. It is a manufacturing and corporate center, the site of some of the world's outstanding technological accomplishments, and a focal point for cultural activities and recreation.

Within a 15-mile radius of campus are world headquarters for many of the nation's leading research, industrial, and manufacturing firms. More than 200 *Fortune 500* companies are headquartered or have major operations here. And while the area's economy is substantially more diverse than in the days when the region was dubbed the world's auto capital, fully one third of all U.S. auto production still takes place within 70 miles of the campus – in some of the planet's most sophisticated, highly automated, and innovatively managed work environments.

Lawrence Tech is part of the Oakland County/Automation Alley SmartZone, one of the state's foremost concentrations of and magnets for high tech business and enterprise. The University is also the designated Small Business Development Center for Oakland County, with specialization in technology.

Oakland County ranks as the fourth wealthiest county in the nation among counties with populations in excess of one million. Retail sales in the county alone exceed those of 14 states and the District of Columbia. The county is a leading center of international commercial activity and home to some 900 foreign-owned firms from 33 countries. About 46 percent of all Michigan's research and development firms have locations in the county, and 70 percent of Southeastern Michigan's top original equipment manufacturers

and suppliers are headquartered in Oakland County. Sixty percent of *Fortune 500* companies and 50 percent of *Global Fortune 500* companies have business locations in the county.

Nearby recreational opportunities abound – over 450 lakes, five ski areas, nearly 30 public fishing sites, and more golf holes per capita than any other place in the country. Major entertainment facilities within a half-hour drive include the DTE Energy and Meadowbrook outdoor music theaters, the Pontiac Silverdome, the Palace of Auburn Hills (home of the NBA Pistons), Joe Louis Arena (home of the NHL Red Wings), Ford Field (home of the Detroit Lions), and Comerica Park (home of the Detroit Tigers). Additional attractions include the Cranbrook Museums, the Detroit Zoo, the Detroit Institute of Arts, Detroit Historical Museum, Motown Museum, The Henry Ford, New Detroit Science Center, Charles H. Wright Museum of African American History, and more.

CAMPUS BUILDINGS

Lawrence Tech's **A. Alfred Taubman Student Services Center**, named for a former student and one of the University's most generous benefactors, is a 42,000 sq. ft. facility at the center of campus that provides convenient one-stop access to the Offices of Admissions, Financial Aid, the Registrar, Cashier, Dean of Students, Career Services, International Programs, Student Activities, Clinical Counseling, University Housing, Laptop Help Desk, Academic Achievement Center, and more. The building is also Leadership in Energy and Environmental Design (LEED) silver-certified and a "living laboratory" of energy-efficient technologies, including a soaring atrium and vegetated "green" roof.

The **Architecture Building**, completed in 1962, houses classrooms, studios, and faculty offices for the College of Architecture and Design. A 325-seat auditorium is also located here, as well as a gallery for changing exhibits.

The **Applied Research Center** houses labs and offices for the SAE Formula One, Baja, and aeronautical student teams; the transportation design program's clay modeling studio; a wind tunnel; and the Automotive Engineering Institute, which features a 4 x 4 chassis dynamometer.

The **Art and Design Center** houses College of Architecture and Design studios and computer labs, the mailroom, and the offices of Campus Facilities and Campus Safety.

The **Wayne H. Buell Management Building** is a 115,000 sq. ft. structure dedicated to the memory of Lawrence Tech's third president. It houses the College of Management, library, dining commons (Café Lawrence), and bookstore. A university lounge and the Offices of the President, Provost, University Advancement, and Marketing and Public Affairs are also here. A fully enclosed two-story atrium hosts a variety of special events and offers an ATM, the Larry Joe coffee bar, and a student-run information desk.

Connected to the Engineering Building is the **Center for Innovative Materials Research** (CIMR), a state-of-the-art laboratory for the research, development, and testing of carbon fiber composites and other advanced materials such as ceramics and polymers for defense, homeland security, automotive, and infrastructure applications. Dedicated in 2008, CIMR was made possible by an \$11 million cooperative research agreement with the Army Research Lab and the U.S. Army Tank-Automotive Research, Development and Engineering Center – an unprecedented federal partnership with a private Michigan university.

The **Business Services Building** houses the Department of Finance and Administration, Business Services, Human Resources, and the Department of Campus Facilities.

The **Don Ridler Field House** memorializes a beloved coach and athletic director who led Lawrence Tech basketball teams of the 1940s and 1950s to national prominence and includes a 1,500-seat gymnasium, exercise track, weight and conditioning room, saunas, racquetball courts, and locker facilities.

Lawrence Tech's **Engineering Building** was the first building on the Southfield campus when it opened in 1955. Expanded in 1987, the building houses classrooms, laboratories, and offices for the College of Engineering.

The **Professional Development Center**, built in 1959 and substantially upgraded in 1996, houses the offices and facilities for non-degree professional training and business acceleration.

The **Quadrangle** at the center of campus features crisscrossing paths, granite benches, trees, and a bioswale of grasses that filter rainwater. It also caps a field of 88 geothermal wells, which heat and cool the Taubman Center, which has no gas hookup.

The **Science Building**, opened in 1967, was extensively renovated and equipped with upgraded computer and multimedia equipment in 1999. It houses classrooms, laboratories, and faculty offices for the College of Arts and Sciences – including the Departments of Natural Sciences; Mathematics and Computer Science; and Humanities, Social Sciences and Communication. The Edward Donley Computer Center is also here. A 303-seat auditorium is located at the south end of the building.

Lawrence Tech's **University Housing South** and **North**, opened respectively in 1977 and 2002, provide modern, fully furnished air-conditioned apartment-style units and together house some 600 students. See the Student Housing section of this *Catalog* for additional information.

Lawrence Tech's **University Technology and Learning Center**, opened in 2001, is a 87,000 sq. ft. building housing a variety of technology labs and studios. It also houses the University Gallery, Maibach Inter-Faith Lounge, Lear Auditorium, Denso Interactive Center, Media Services Studio, and more. The building connects on either end to the **Architecture** and **Engineering** buildings.

Outdoor Athletic Facilities include softball diamonds and football and soccer practice fields.

The **Gregor S. and Elizabeth B. Affleck House**, designed by Frank Lloyd Wright and completed in 1941, was given to the University in 1978 by the late Afflecks' children, Mary Ann Lutomski and Gregor P. Affleck. The home is located in the nearby city of Bloomfield Hills. It is considered an outstanding example of Wright's work. The Affleck House is managed by the College of Architecture and Design.

Services for Students

ACADEMIC ACHIEVEMENT CENTER

The Academic Achievement Center (AAC) provides free academic support services to all students. Students come to the AAC to get help with homework or test preparation, compare notes, meet with study groups, or study quietly. Tutoring is provided in person and online for core classes in architecture and design, biology, chemistry, computer science, engineering, ESL, mathematics, physics, and writing. Students can walk in any day and see if a tutor is available; they can also guarantee time with a tutor by scheduling an appointment online.

Testing Services (proctored testing) are offered for students who are unable to complete quizzes or exams during regularly scheduled class time. When not in use for testing, private rooms are open for general student use.

Study skills workshops, individual study habit consultations, and study strategy handouts are available. The AAC also offers computer workstations, a photocopier, other electronic resources, and conference rooms that can be reserved. The AAC is located on the lowest level of the A. Alfred Taubman Student Services Center in C201. Fall and spring semester hours of operation are Monday through Thursday, 8 a.m. – 8 p.m., and Friday 8 a.m. – 4:30 p.m. Summer and weekend hours vary and are posted outside the entrance.

ACADEMIC COUNSELING AND TUTORIAL SERVICES

All new students are expected to attend orientation sessions prior to or during their first semester on campus. During these sessions, student opportunities, responsibilities, and regulations are presented, and registration is completed. A number of University counselors are available for academic advice, counseling, and registration assistance.

The Academic Achievement Center works with the coordinator of disability services to provide tutorial and testing services for students with disabilities. Contact the Office of Disability Services at 248.204.4119. See also Disability Services.

ACTIVITIES AND ORGANIZATIONS

Whatever their particular interests or needs, students can find a campus activity or organization that will provide not just fun and fellowship but also opportunities to develop their professional and leadership skills. Joining a campus club or organization can help students prepare for life after college or simply provide a great way to relax and recharge. As they look back on their college years, alumni often say that some of their most rewarding experiences came from their participation in co-curricular activities.

To be eligible to run for office in any campus organization, students must have a cumulative grade point average of at least 2.0. They will be requested to withdraw from office at the end of any semester in which their semester grade point average falls below 1.8. In order to hold a Student Government office, a student must maintain at least a 2.3 grade point average. Students interested in forming new organizations should contact the

director of student activities or Student Government president for assistance and for membership in the Student Government, whose approval is necessary for official recognition and funding assistance.

Student Government

The Lawrence Tech Student Government is recognized by the University administration as the official representative for the entire student body. It offers the opportunity for students to better themselves and their University through involvement in campus activities. Every student is extended an invitation to attend the many campus activities sponsored and supported by the Student Government.

Student Government business is conducted twice monthly. All interested students are encouraged to attend meetings and express their views. Contact the Student Government through the Office of Student Activities. The Student Government actively endorses all Lawrence Tech clubs and organizations that are beneficial to personal and scholastic achievement.

The Student Government is composed of three interacting branches working in cooperation with each other. They are the Student Administration, the Student Senate, and various committees. The Student Administration consists of a president, vice president, treasurer, and secretary, who are elected in a spring campus-wide election. Various committee chairmen are appointed by the president and approved by the Senate. Students become eligible to be members of a Student Government committee by simply attending the meetings. Members of the Student Senate include official representatives from each recognized student organization and three senators-at-large. Senators are the only voting members at Student Government meetings. All business concerning the Student Government is brought before the Student Senate for approval.

The Student Government recognizes four standing committees:

Publications Committee

Coordinates student section of the *Tech News* newspaper.

Elections Committee

Coordinates all aspects of the Student Government elections held in the spring.

Honors and Awards Committee

Organizes the annual Student Government Awards Banquet held in the spring of each academic year.

The number of student clubs and organizations varies each year depending on student interest. At a moderately sized university like Lawrence Tech you don't have to "wait in line" to become involved. Students interested in starting a club based on a hobby, career interest, or for any other pursuit should contact the Office of Student Activities at 248.204.4105.

Students Planning Activities Monthly (SPAM)

SPAM is a student-based organization which coordinates campus activities that enhance and enrich the quality of student life at Lawrence Tech by addressing the needs and interests of its diverse student body. SPAM is open to all students from all academic majors. Members attend the annual National Association of Campus Activities mid-America and national conferences, monthly meetings, and SPAM-associated events. To get involved, contact the coordinator of student activities at 248.204.4105 or stuevent@ltu.edu. Monthly event information is available at www.ltu.edu/student_affairs/spam1.asp.

Professional Organizations

American Chemical Society (ACS)
American Institute of Architecture Students (AIAS)
American Institute of Graphic Arts (AIGA)
American Society of Civil Engineers (ASCE)
American Society of Interior Designers (ASID)
American Society of Mechanical Engineers (ASME)
Association for Computing Machinery (ACM)
Association of Information Technology Professionals (ASITP)
Black Student Union (BSU)
Institute of Electrical and Electronic Engineers (IEEE)
Interior Architecture Student Organization (IASO)
National Society of Black Engineers (NSBE)
Society of Automotive Engineers (SAE)
Society of Physics Students
Society of University Leaders (SOUL)
Society of Women Engineers (SWE)

Honor Societies

Chi Epsilon
Eta Kappa Nu (Theta Upsilon Chapter)
Lambda Iota Tau and Tau Iota
Pi Tau Sigma (Phi Iota Chapter)
Tau Beta Pi (Michigan Eta Chapter)
Tau Sigma Delta

Clubs and Publications

Alternative Energy Student Group (AESG)
Artists' Guild
Blue Devil Development
Campus Crusade for Christ
Chaldean-American Students Association (CASA)
Circle K International
Collegiate Entrepreneurs' Organization (CEO)
Curling Club

DEMI (Dance Evolution Motivating Individuals)
Engineers Without Borders (EWB)
Film Club
Honors Society
Hua Xia Association
Math Club
Musicians' Society
Muslim Student Association (MSA)
National Organization of Minority Architecture Students (NOMAS)
National Pan-Hellenic Council (NPHC)
Out! At LTU with Friends
Prism
Psychology Club
Residence Hall Association
Saudi Student Union
Sigma Alpha Pi
Society of Dramatic Arts (SODA)
Spanish Club
Students Planning Activities Monthly (SPAM)
Veteran's History Project

Greek Life

Interfraternal Council

This organization provides coordination and improves communication among the various Greek-letter social organizations on campus.

Greek Letter Organizations

Fraternities
Alpha Sigma Phi
Phi Beta Sigma
Phi Kappa Upsilon
Sigma Phi Epsilon
Sigma Pi
Theta Tau

Sororities
Alpha Kappa Alpha
Chi Omega Rho
Delta Phi Epsilon
Delta Tau Sigma

ATHLETICS AND INTRAMURALS

Intramurals

Intramural sports, which are free to all students, include football, softball, basketball, table tennis, indoor soccer, racquetball, wallyball, badminton, and volleyball. Tennis, skiing, golf scrambles, a 5K run, billiards tournaments, and other special events are

sponsored by the Office of Student Recreation. Any group of students is welcome to form teams and submit the names to the Office of Student Recreation for scheduling of games.

Club Sports

Club sports allow Lawrence Tech students to compete with clubs and varsity teams from other colleges and universities. Men's soccer, men's ice hockey, men's cricket, women's volleyball, and co-ed curling are currently offered and other sports are possible if student interest is sufficient to field teams.

ATM (CASH) MACHINE

An automated teller machine (ATM), hosted by Michigan First Credit Union, is located in the atrium of the Buell Management Building. Available anytime the building is open, this unattended ATM accommodates withdrawals, deposits, or account transfers, using debit cards with Cirrus, Plus, Pulse, Star, or Quest network logos or a Visa, MasterCard, Discover, or American Express credit card and a personal identification number. For local Michigan First Credit Union branches, call 800.664.3828.

BOOKSTORE

The University Bookstore, located in the atrium of the Buell Management Building, offers books, instruments, supplies, software, greeting cards, snack items, and a wide variety of other items for purchase. A "spirit shop" features clothing, gifts, and distinctive custom signature items emblazoned with Lawrence Tech's name. Fall and spring semester hours are: Monday – Thursday, 9 a.m. – 7 p.m., and Friday, 9 a.m. – 1 p.m. For summer hours, call 248.204.3030 or visit the [bookstore \(http://lawrence-tech.bncollege.com/webapp/wcs/stores/servlet/BNCBHomePage?storeId=30552andcatalogId=10001andlangId=-1\)](http://lawrence-tech.bncollege.com/webapp/wcs/stores/servlet/BNCBHomePage?storeId=30552andcatalogId=10001andlangId=-1).

BUILDING HOURS

In general, campus facilities are open from 7 a.m. to 10 p.m. seven days a week, excluding holidays. Students may use the facilities 24 hours per day provided the dean of their college, a faculty member, or faculty advisor has approved and forwarded to the Department of Campus Safety an extended access hours authorization via email. Faculty members and faculty advisors should check with the dean of their respective college regarding the policy on allowing extended access to the facilities of that college. The dean, faculty member, or advisor may forward extended-access authorizations via email to ltu_safety@ltu.edu. Please allow 24 hours advance notice for extended hours requests. Students found not in compliance with this policy may be subject to the University discipline system. Students using campus facilities, especially after hours, must carry their Lawrence Tech identification card with them and must present it if requested to do so by a Lawrence Tech Campus Safety officer.

CAMPUS DINING

Real Food on Campus (RFoC), located on the second floor of the Buell Management Building, is open during the fall, spring, and summer semesters and provides "all you care to eat" meal options that include five staffed food stations – comfort food, deli, exhibition grill, pizza and pasta, market (soups and salads) – and a bakery. Campus

Dining also oversees the Einstein Bros. Bagels in the atrium of the Buell Management Building and a Provisions on Demand (P.O.D.) express in the UTLC lobby, which offers grab-and-go salads and sandwiches, snacks, and beverages.

Lawrence Tech offers meal plans and Blue Devil Dollars. Meals plans are used at the RFoC. Blue Devil Dollars work like a debit card and can be used at all Lawrence Tech dining locations. Pizza and other items can be delivered to students after the RFoC closes in the evening. Lawrence Tech requires all residential students to participate in one of three Meal Plans (the Blue Devil 100, 150, or 200).

As the exclusive food service vendor for the University, Aramark has the exclusive right to provide all food services, including catering and concessions, for all University purposes, including events offered by student organizations. Questions regarding this policy may be directed to the director of campus dining at 248.204.3203.

CAREER SERVICES

The Office of Career Services is much more than a place where students can go to find a job when they graduate. Career Services provides a wide variety of services and programs that, as early as the freshman year, can help students develop their career plans and establish career goals by identifying their abilities, values, and interests, and then targeting occupations that reflect those same abilities, values, and interests. The office also assists students with gaining cooperative education and internship experiences in their chosen fields.

Services include career advising, on-campus employment, cooperative education and internships, career workshops, resume critiques, mock interviews, career fairs, employer presentations, and on-campus interviews. Lawrence Tech's online career resource center, CareerQuest (www.ltu.edu/career_service/careerquest.asp), lists opportunities for students and alumni. Students can also post resumes, schedule on-campus interviews, register for career fairs and expos, research employers, and much more on CareerQuest.

The office also hosts an On-Campus Employment Fair every semester. At the fair, the colleges, departments, and offices, such as Campus Dining, Student Recreation, and the bookstore, interview students for on-campus positions available beginning in the fall semester. In August, students may view available positions on CareerQuest (www.ltu.edu/career_services/careerquest.asp). Student assistants, whose responsibilities vary from administrative support and applied research to general labor, are great assets to the University. Students who need help in writing their resumes to prepare for the fair should contact the career services staff.

The Office of Career Services is located in Room C404, Taubman Student Services Center, and is open daily 8:30 a.m. – 4:30 p.m. Appointments outside of regular business hours can be made by special arrangement.

COMPUTER AND ONLINE LEARNING RESOURCES

Lawrence Tech provides laptop or tablet computers to all undergraduate students to ensure that they have full access to the University's rich educational resources and to better prepare them for the workplace. Undergraduate students may obtain a laptop upon registration, payment of a \$500 security deposit, and acceptance of the terms and conditions of a laptop lease agreement. The term of the lease is up to one year. Graduate students may also obtain a laptop for a charge of \$95 per credit hour, if they are available at the end of the undergraduate laptop distribution period. Laptops are distributed at the beginning of every semester. Laptops are also available to Lawrence Tech faculty.

A uniform suite of the most recent software applications is installed on each laptop. Software applications specific to each college are also included, so that students have all the software resources they need for their declared majors.

All students, faculty, and staff have access to email, the Internet, and protected file storage on the University's servers. Campus is completely wireless, so access is possible anywhere in the academic cluster. Students can use several public printers located in the Help Desk office, the Engineering Building, the library, and in University Housing-North and Housing-South.

Help Desk

The Help Desk, located in the MPC Student Computer Center, Room C203, Taubman Student Services Center, provides walk-in support to all students and faculty, including problem diagnosis; laptop and tablet distribution, return, and repair; wireless network configuration; password changes; email setup; instruction and training; and more. Laptop diagnosis and minor repairs are handled on-the-spot. Other repairs are made within 24 to 48 hours, and a loaner laptop is provided if needed.

Help Desk hours are Monday – Thursday, 8 a.m. – 6:30 p.m., and Friday, 8 a.m. – 4:30 p.m., during the fall and spring semesters. Telephone support is also provided during these hours at 248.204.2330. Hours are reduced during breaks and the summer months. For more information about Help Desk services and the laptop program, visit www.ltu.edu/computer_center/helpdesk.asp.

My.ltu.edu

Lawrence Tech's comprehensive e-learning and services portal, *my.ltu.edu*, offers an expanding variety of resources and conveniences. Among them is Blackboard, a comprehensive and flexible e-learning software platform that delivers the University's course management system, customized institution-wide portals, online communities, and an advanced architecture that provides for Web-based integration with the University's administrative systems.

The University's course management system offers students the 24/7 access to professors and fellow students that is not available in the typical classroom environment. Professors post their syllabi online, as well as class lectures and assignments, for immediate retrieval anytime, anywhere. Other features available through Blackboard are discussion boards for posting questions to and receiving answers from other students and the professor in

the class; Virtual Chat Room capabilities for asynchronous communication with the entire class; the ability to submit assignments to professors; Web conferencing; instant messaging; podcasting; and many others.

LTU Online

LTU Online develops fully online degree and certificate programs for working students. Today's global work environment may prevent students from taking on-campus classes. LTU Online is designed to help address these challenges and bring the quality of a Lawrence Tech education to wherever students work or their family takes them.

LTU Online offers core and elective courses in these programs: Master of Architecture, Master of Business Administration, Master of Educational Technology, Master of Engineering Management, Master of Interior Design, Bachelor of Science in Information Technology, Graduate Certificate in Architecture Management, Graduate Certificate in Nonprofit Management and Leadership, and Graduate Certificate in Program Management. Other degree and certificate programs are under development, and students should visit LTU Online (www.ltu.edu/ltuonline) for current information.

All LTU Online degree and certificate programs are academically equivalent to on-campus programs and are fully accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools.

DEAN OF STUDENTS

The Office of the Dean of Students, located in the A. Alfred Taubman Student Services Center (C405), serves as the central resource for activities that are coordinated through the Division of Student Affairs. The dean of students serves as the primary advocate for students and works to insure that students are offered a quality college experience. Staff members in the Division of Student Affairs provide services to help students successfully complete their academic studies and coordinate opportunities for fellowship, fun, and rewarding college experiences. The Office of the Dean of Students offers personal, confidential, and nonbiased assistance in addressing any concerns a student may have regarding his or her rights or responsibilities as a member of the campus community. Services coordinated by the Office of the Dean of Students include:

Student Events and Activities

Annual social events to encourage students to interact with each other on campus are coordinated by the Office of the Dean of Students and the Office of Student Activities. Popular programs include the fall semester Blue Devil Welcome Week picnic, concert, and Party on the Yard; New Student Convocation; movie nights; and Pushing Honey Through awards for supportive family members.

Student Code of Conduct Adjudication Services

Honesty, integrity, and caring are essential qualities of an educational institution, and a concern for values and ethics is important to the whole educational experience. The *Student Code of Conduct* outlines the rights and responsibilities and expected levels of conduct of students in the University community. Fundamental to the achievement of

community among the members of the University is the recognition by all such members that each shares a responsibility to observe University regulations. This obligation, which is an extension of the citizen's responsibility to observe the law of the land, is an essential corollary to participation in the academic rights afforded to members of the University. A student voluntarily joins the Lawrence Technological University community and thereby assumes the obligation of abiding by the standards prescribed in the *Student Code of Conduct*. The University, through the Office of the Dean of Students, maintains the exclusive authority to impose sanctions for behaviors that violate the *Student Code of Conduct*.

Support Services

Students needing assistance with personal or academic challenges during their college career are welcome to contact staff in the Office of the Dean of Students, who can act as liaisons between students and faculty. Academic study skills development and strategies for becoming self-efficient learners are provided by staff in the Academic Achievement Center. Students desirous of discussing personal or emotional concerns may receive clinical counseling services provided by licensed psychologists free of charge through the Office of the Dean of Students.

DISABILITY SERVICES

The Office of the Dean of Students, 248.204.4100, and the Office of Disability Services, 248.204.4119, coordinate Lawrence Tech's compliance with Sections 503 and 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. The University does not discriminate against students with disabilities in recruitment, admission, or treatment after admission. In addition, the University makes reasonable accommodations to permit students with disabilities to fulfill academic requirements and provides effective auxiliary aids to ensure that they are not excluded from programs because of their disabilities. Eligibility for accommodations is determined on an individual basis.

For additional information on eligibility for services, accommodations, and student responsibilities, refer to Lawrence Tech's website or contact the disability services coordinator at 248.204.4119 or through the Michigan Relay Center at 800.649.3771 to schedule an appointment. Students who believe that the University may not be meeting these responsibilities or who believe that they have been otherwise discriminated against based upon their disability may contact the Section 504 officer in the Office of the Dean of Students, Taubman Student Services Center, Room C404.

DTE ENERGY ONE-STOP CENTER

Located on the third floor of the Taubman Student Services Center, the DTE Energy One-Stop Center assists students with records and registration, financial aid, and student accounting transactions. The center is open Monday and Tuesday, 8 a.m. – 6:30 p.m., and Wednesday through Friday, 8 a.m. – 4:30 p.m.

DUPLICATING FACILITIES

Pay photocopying machines are located in the library and in the Academic Achievement Center. Both machines accept dollars and coins.

FAX SERVICE

Fax services (send only) are available at the bookstore, which is located in the Buell Management Building atrium. There is a small fee for this service.

FIELD HOUSE/RECREATION

The Don Ridler Field House includes a gymnasium, weight and conditioning room, running track (1/11th mile), four racquetball/wallyball courts, and men's and women's locker rooms with showers and saunas.

Field House Hours

September – Mid-May

Monday	6:30 a.m. – 11 p.m.
Tuesday	8 a.m. – 11 p.m.
Wednesday	6:30 a.m. – 11 p.m.
Thursday	8 a.m. – 11 p.m.
Friday	6:30 a.m. – 10 p.m.
Saturday	9 a.m. – 5 p.m.
Sunday	Noon – 5 p.m.

Mid-May – August

Monday	6:30 a.m. – 10 p.m.
Tuesday	8 a.m. – 10 p.m.
Wednesday	6:30 a.m. – 10 p.m.
Thursday	8 a.m. – 10 p.m.
Friday	6:30 a.m. – 9 p.m.
Saturday	9 a.m. – 1 p.m.
Sunday	Closed

FINANCIAL AID

The Office of Financial Aid, as a division of Enrollment Services, can be contacted at the DTE Energy One-Stop Center (248.204.2280) in the Taubman Student Services Building. Approximately two-thirds of all students at Lawrence Tech receive some form of financial aid. Grants, scholarships, loans (types and amounts), and work study eligibility vary by student, depending on need, merit or ability, and availability of funds. All students are encouraged to complete the Free Application for Federal Student Aid (FAFSA) by March 1 and provide all requested documentation by April 1 every year to avoid potential processing delays. All awards are offered based on a first-come first-served basis.

For additional information on federal, state, and institutional aid programs and instructions on how to apply, visit the financial aid website at www.ltu.edu/financial_aid. Most initial awards are based on the assumption of full-time attendance (six or more credit hours for graduate students). All awards will be adjusted for part-time attendance and disbursed proportionally, depending on whether a student attends three-quarter-time (five credit hours for graduate students) or half-time (three or four for graduate students).

Most students are not eligible for financial aid if attending less than half-time (less than three credit hours for graduate students).

All awards will be reviewed and revised, if necessary, following the Add/Drop period each semester. Students who withdraw from all classes for the semester are subject to a recalculation of their award eligibility. All students who have been awarded financial aid should consult the Office of Enrollment Services at the DTE Energy One-Stop Center (enrollmentservices@ltu.edu or 248.204.2280) before dropping or withdrawing from classes. Students will receive a revised award notice showing all adjustments in financial aid eligibility.

Financial aid disbursements will be posted to student accounts and finalized shortly after the Add/Drop period. Refundable balances of excess financial aid will be processed accordingly, based on the wishes of each student. Please contact the Office of Enrollment Services at the DTE Energy One-Stop Center to discuss refunding options.

All financial aid recipients are subject to Satisfactory Academic Progress policies as stated at www.ltu.edu/financial_aid/sap_policy.asp.

Guest, non-degree, and international students are not eligible for most financial aid programs.

For a list of financial aid opportunities available, please contact the Office of Enrollment Services at the DTE Energy One-Stop Center (enrollmentservices@ltu.edu or 248.204.2280).

HOUSING

University Housing at Lawrence Tech provides more than just a room in which to sleep and study. The living and learning environment that is fostered within University Housing supports students' academic, social, cultural, and personal growth. University Housing staff are committed to assisting residents in all aspects of their collegiate experience by providing a safe and healthy environment in which to pursue their academic goals, promoting the ideals of community living by emphasizing personal responsibility and respect for others, creating opportunities for student involvement and personal development, and offering advice and information to residents.

The camaraderie that develops among residents is unequalled by any other living option. Residents who take advantage of this environment tend to improve both their academic performance and their satisfaction with their college experience. Each residence hall community offers opportunities for students to get involved in numerous activities and programs.

Lawrence Tech has two residence halls, University Housing-North and University Housing-South. Each hall features furnished one- and two-bedroom apartment-style suites that accommodate two to four students depending on the size of the suite. Both buildings feature air-conditioning, cable television, wireless connectivity, carpeting,

private bathrooms, and full kitchens. Washers and dryers are available in each suite in Housing-North. Laundry facilities are provided free of charge for students in Housing-South. Parking close to each building is provided free for residents.

Lawrence Technological University requires all freshmen and transfer students with less than 30 credit hours completed, including international students, to reside in on-campus housing. Students will be exempted from the residency requirement if they fit into one of the following categories:

1. Students who are 21 years of age or older, having reached that age no later than the first day of classes for the applicable semester.
2. Veterans of at least two years of active military service.
3. Students who are married.
4. Students who have custody of dependent children.
5. Students who commute from the permanent, legal residence of their parent(s) or legal guardian (within 40 miles).
6. Students who have resided in the residence halls for two semesters, excluding summers.
7. Students who are enrolled for less than nine credit hours per semester.

Students wishing to be granted an exemption must complete a residency requirement exemption request form and provide supporting documentation. This form is available in the Office of University Housing. Upon receipt, all exemption requests will be reviewed by the director of residence life. Non-exempt students not residing on campus will be considered in violation of this policy and will be held accountable for the financial obligation entailed by their room assignment.

Lawrence Tech also requires all residential freshman and transfer students with less than 30 credit hours completed to participate in, at a minimum, the traditional 80 meals per semester meal plan. Residence hall students with more than 30 credit hours completed are required to purchase a minimum of \$125 in Café Cash per semester or one of the established meal plans.

Anyone seeking on-campus housing should complete a Housing and Meal Plan Application and Contract and pay the application fee. Applications are available from the Offices of University Housing and Admissions and at www.ltu.edu/housing/forms.asp. Students are encouraged to apply for housing as soon as possible.

Applicants must be admitted to Lawrence Technological University in order to live in University housing. Students may apply for University housing before registering for classes but will not be allowed to take occupancy of their assigned room until registered. For the fall and spring semesters, undergraduate residents must maintain at least nine credit hours per semester to be eligible for housing. For more information, please contact the Office of University Housing at 248.204.3940.

Other Housing

The Southfield and northern metropolitan area abounds with a variety of privately owned rental housing, ranging from rooms, small homes or duplexes available from individuals, to large complexes containing hundreds of units. Most require a 12-month lease.

Renter's Insurance

Students residing in University housing, or in locations other than their family home, are advised to secure renter's insurance on their personal belongings and furnishings to protect against loss, theft, or damage. See also Student Insurance.

IDENTIFICATION CARD

Lawrence Tech's student identification card combines a photo with a magnetic strip/bar code and a cash debit option that allows students to load their card with Café Cash, which can be spent at Café Lawrence and the Larry Joe coffee bar in the atrium of the Buell Management Building. The ID card also serves as the student's library card and should be presented at the circulation desk when checking out books or using the Reserve Desk. Instructions for applying for a card are provided to new students during Orientation and Registration (O & R). There is a \$10 replacement charge for lost ID cards. Replacement ID cards must be purchased at the DTE Energy One-Stop Center. If an ID card is damaged and needs to be replaced, the student must present it at the DTE Energy One-Stop Center to have the replacement charge waived.

INTERNATIONAL STUDENTS

The Office of International Programs serves as the primary contact for international undergraduate, graduate, and doctoral students and scholars who attend classes on campus. Services offered include guidance on enrollment requirements, visa requirements, on-campus employment, and resource information. All new international students are required to meet with an advisor from the Office of International Programs upon arrival.

Student participation in an orientation prior to classes is also required. International student orientation dates will be posted on the Lawrence Tech website.

The Office of International Programs is located in the A. Alfred Taubman Student Services Center in Room C405 and can be reached at 248.204.4100. Normal office hours are Monday – Friday, 8 a.m. – 4:30 p.m., or by appointment.

LAPTOP SUPPORT HELPDESK

See Computer and Online Learning Resources

LIBRARY

Lawrence Tech's library is conveniently located on the first floor of the Buell Management Building and boasts an attractive indoor garden area. The library houses a broad selection of books, periodicals, online databases, full-text electronic books and periodical articles, microforms, and other material that has been selected to enhance the

curriculum areas of the University. Collection strengths include engineering, technology, architecture, and management.

Among the library's unique resources is the 3,000-volume professional library of the late renowned architect Albert Kahn and a complete collection of the Society of Automotive Engineers papers since 1965. The professional librarians, on duty during all scheduled hours, are skilled in locating information both in the Lawrence Tech collection and at numerous other institutions. They also provide individualized and group instruction on how to use the library efficiently. Students have full access to the stacks for browsing and independent research and can always count on getting personalized reference assistance from a librarian.

While the library's catalog is available to the public on the Lawrence Tech website (<http://library.ltu.edu>), premium content, including databases and full-text material, tailored to serve the needs of Lawrence Tech curricula, is available online via password-protected links. Students can access this content using their campus log-in information. In addition to print and database sources, more than 24,000 electronic books and more than 53,000 electronic journal titles are accessible from the site as well.

When an item is not available on campus, the library has negotiated agreements with many local and statewide academic and public libraries for direct borrowing privileges or, in some cases, for borrowing through a special arrangement. As an alternative, materials can be requested and shipped directly to Lawrence Tech from Michigan libraries via the MelCat service or from libraries across the nation through the use of interlibrary loan. It is recommended that students make the Lawrence Tech library their first stop when beginning a research project.

Loan Privileges

Lawrence Tech students may borrow most material from the library for three weeks. Certain special materials circulate for shorter periods. Reserve and reference materials must be used in the library. Students with fines or lost item charges of \$10 or more may not borrow library materials.

Renewals

Students may renew material as long as no one has requested the item. Students may renew books through their online library accounts. Books that are overdue may only be renewed by contacting the library. Call the circulation desk, 248.204.3009, to renew by phone or bring the books to the library for renewal.

Overdue Materials

Overdue Charges

\$.10 per item per day (books)

\$1.00 per item per day (all Reserve Desk items)

Lost Item Charge

This includes replacement value, a service charge, and a maximum \$5 fine. Patrons with lost item charges or excessive overdue fines are not allowed to check out materials and an Academic Hold will be placed on their records.

Library Account

All students have a special library account that may be accessed through the “My Account” feature of the library’s online catalog (<http://libweb.campus.ltu.edu>). Contact the library with questions. Once logged in, students may place requests directly from the catalog and review their account for items checked out, fines, etc.

LOCKERS

Lockers in the Architecture Building and the University Technology and Learning Center (UTLC) are assigned by the College of Architecture and Design, 248.204.2880.

LOST AND FOUND

The Department of Campus Safety (248.204.3945) is the clearinghouse for lost and found articles. Campus Safety delivers all found Lawrence Tech laptop computers to the Laptop Help Desk (248.204.2330).

MARTIN LUTHER KING DAY

The University is open and classes are held on Martin Luther King Day. To afford all members of the University community an opportunity to participate in the Freedom Walk celebrating Dr. Martin Luther King’s life and legacy, students, faculty, and staff, upon request, may be excused from any scheduled classes, office hours, meetings, etc., from 11 a.m. – 1 p.m. Temporary help, substitute instruction, rescheduling, etc., will be provided as needed. During this period, all mandatory activities such as exams, presentations, or other graded activities will be deferred, although assignments may be made by email for subsequent sessions.

MOTOR VEHICLES AND PARKING

All students may have motor vehicles on campus. Ample paved, lighted parking is provided free for students, faculty, staff, and visitors. Each student, faculty, or staff vehicle must display a current Lawrence Tech parking permit, which is available from the Department of Campus Safety. Lawrence Tech Campus Safety officers are authorized to write tickets and levy fines for improper driving or parking. Campus motor vehicle parking and traffic regulations are outlined in the *Student Handbook*. The University is not liable for accidents, damage, or theft.

ONLINE STUDENT SERVICES

Lawrence Tech offers convenient online student services. Students can register for courses, view their academic records and account balances, make tuition payments, and conduct financial aid transactions through BannerWeb from any location at any time.

Students may register online using their nine-digit student identification number and their PIN. In addition, graduate students pursuing the Master of Science in Computer Science

or College of Engineering graduate programs must obtain an Alternate PIN from their academic advisor. The Alternate PIN is the advisor's electronic signature, giving the student approval to register. Students owing a balance from previous semesters may not register. In order to be allowed to register students must not owe a balance from previous semesters.

Students may also view and print an unofficial copy of their student transcript, provided they do not have a hold on their records (the result of owing the University money) that prohibits this function. See also Computer and Online Learning Resources.

OPEN DOOR POLICY

The president's door is always open to students. Usually after consultation with instructors, department chairs, college deans, the dean of students, the provost, or other responsible administrative offices, students will find that any concerns will be satisfactorily addressed. If not, students may contact the president's executive assistant, who will prepare a briefing and arrange a convenient appointment between the student and the president.

POSTAL AND PACKAGE SERVICES

Mailboxes for outgoing U.S. mail are located in the lobbies of the Engineering, Buell Management, and Science buildings and at the Information Desks at both residence halls. All mail and packages are delivered to the Information Desks, where stamps may be purchased.

United Parcel Service (UPS) has an outbound package kiosk located outside the Buell Management Building on the north (C Lot) side of the building (atrium level).

POSTING AND ADVERTISING POLICY

"Flyer" means any writing, notice, pictorial presentation, poster, or similar item intended to convey a message of a temporary nature. For purposes of display, all flyers must be no larger than 21 by 15 inches.

"Banner" means any display larger than a flyer on flexible material. For purposes of display, all banners must be no larger than 6 by 9 feet.

"Sign" means any display of a written or pictorial nature intended to convey a message of a more permanent nature.

1. Individuals and student groups or student organizations must seek the approval of the Office of Student Recreation in the Ridler Field House or the Office of the Dean of Students in the Taubman Student Services Center (C405) for all flyers prior to posting. An approval stamp and date will be placed on the flyers, which indicate a removal date.

2. Only 30 copies of stamped and approved flyers will be distributed by Office of Student Recreation staff or the Office of the Dean of Students staff to approved locations monitored by these offices. A list of the posting locations can be obtained from either

office. Flyers will be removed by the staff on the expiration date. If flyers are not about an event, they can remain posted for one month after approval. **Posting of flyers in classrooms, on windows, on doors, and on walls is strictly prohibited.** Material posted on surfaces other than designated bulletin boards will be removed.

3. Only one flyer will be posted per bulletin board. Locations having two or more bulletin boards may have a flyer posted on each board.

4. Flyers are posted two times per week from each office (Tuesdays/Thursdays by Student Recreation staff; Mondays/Wednesdays by Dean of Students staff).

5. Individuals and student groups or student organizations desiring to post flyers in the residence halls must, after approval from the Office of Student Recreation or the Office of the Dean of Students, submit the flyers to the Office of University Housing (C205) and they will be posted by housing staff in each hall. A total of 18 stamped and approved flyers will provide posting coverage for every floor in each residence hall.

6. Notices of items for sale by individuals who are not regularly engaged in the business of such sales may be posted by bringing such notice to the Office of Student Recreation or the Office of the Dean of Students for approval.

7. Approved and stamped banners may be posted in the atrium of the Buell Management Building along the third-level railing.

8. The use or reproduction of the University seal, the name, official logotypes, and official symbols of Lawrence Technological University is prohibited for any purpose without prior written permission from the Office of Marketing and Public Affairs (Buell Management Building, M376).

9. Any unapproved flyers will be removed. Failure by a student organization to abide by these guidelines may result in the loss of posting privileges.

RAFFLE OR CHARITABLE GAMING EVENT GUIDELINES

Any student organization requesting to host a gambling tournament or raffle must contact the coordinator of student activities to receive guidance on completing a Charitable Gambling Application through the State of Michigan Bureau of the State Lottery. The student organization must submit the application to the Bureau of the State Lottery with appropriate application fees, along with the organization's constitution, and a signed letter from the dean of students. It takes approximately 4 – 6 weeks for the Bureau of the State Lottery to approve an application. Visit <http://michigan.gov/lottery> for more information. (The Bureau of the State Lottery does not allow education subordinate organizations to raffle prizes over \$500. Therefore, there is no need to complete the Millionaire Party application to obtain a license.)

RALLIES/MARCHES/PROTESTS

Student groups wanting to hold a rally, march, or protest should contact the Office of Student Activities and make an appointment with a professional staff member to discuss the event and find out what steps must be taken to secure its approval. If the event includes any form of public address equipment or amplified sound, groups must complete forms for Campus Facilities and inform Campus Safety.

SAFETY AND SECURITY

A safety team patrols Lawrence Tech 24 hours a day. But because no metropolitan area is immune from criminal activity, all students should take an active role in assuring personal safety.

Report suspicious persons or activities immediately to the Department of Campus Safety (available 24 hours a day) by dialing ext. 3945 (or 248.204.3945). For emergencies, dial *911 (Star-9-1-1) to be connected to Campus Safety, which will contact the appropriate emergency service.

Lawrence Technological University, in full compliance with the Federal Crime Awareness and Campus Security Act of 1990, makes security information available to Lawrence Tech's students, faculty and staff, applicants for admission, newly hired employees, and the general public. Statistics on campus crime may be examined at the Department of Campus Safety. Campus safety and security statistics for the prior academic year are available at www.ltu.edu/campus_safety.

SPIRIT ROCK

The Spirit Rock exists to provide students and student organizations the opportunity to express their spirit and pride in Lawrence Technological University. To maximize this opportunity, students are expected to comply with the following regulations:

- With the exception of painting, the physical condition of the rock is not to be altered in any way that will change its shape, size, or orientation.
- The rock is not to be moved.
- Derogatory or profane words or messages on the rock are prohibited.
- There is no limit to the number of times the rock may be painted in total or by any one organization.

STUDENT ACTIVITIES

The Office of Student Activities (C404) provides programs and services for the entire University community. Student Activities coordinates a variety of opportunities for students to become involved on campus and in the Southfield and Metro Detroit areas. The mission of Student Activities is to encourage the intellectual, social, and civic development of students individually and through student groups.

The programs Student Activities provides includes:

Blue Devil Welcome Week
Discovery Days (New Student Orientation)
Leadership LTU

Student Activities also oversees and advises:
Students Planning Activities Monthly (SPAM)
Student Government
Student Organizations

Commuter Student Support Services

Commuter Student Support Services serves the 80 percent of students who commute to Lawrence Tech. Programs and services endeavor to build community and create a sense of connectedness between commuters and the University. They include day trips, Good Evening Commuters workshops, and online resources that benefit the commuter population.

Multicultural Support Services

Multicultural Support Services supports Lawrence Tech's commitment to diversity and works to increase the recruitment, retention, and graduation of all students and particularly underrepresented groups (including racial/ethnic, women, and GLBT students) by developing strategies that engage students in the attainment of academic excellence and social success.

Multicultural Support Services provides a support and advocacy network through which students from underrepresented groups are given assistance during their academic tenure. Programs include welcome receptions; cultural programs and forums that enhance the intellectual, social, and personal development of students; and speakers and discussions that focus on relevant social, cultural, and academic issues. Multicultural Support Services also advises multicultural student organizations.

STUDENT AFFAIRS

The Division of Student Affairs coordinates efforts, programs, and services that support the development of a vibrant learning community on campus. The division's purpose is to support students, staff, and faculty in achieving the educational mission of Lawrence Tech by creating communities that foster and support student growth and development.

Included in the division are the Office of the Dean of Students, Career Services, Clinical Counseling Services, Campus Dining, Disability Services, International Programs, Student Activities (which includes Commuter Support Services and Multicultural Support Services), Student Recreation, University Housing, and the campus switchboard.

The Office of the Dean of Students serves as the central resource for activities coordinated by the Division of Student Affairs. Events, programs, and services provided through these offices are designed to enhance student involvement and student leadership development.

STUDENT COMMUNICATIONS/EMAIL

Lawrence Tech's official method of communication with students is through the use of University email. All students are issued a free email account. They are expected to check

their Lawrence Tech email accounts frequently and regularly for notices related to enrollment and financial matters, including important deadline and date information. For assistance in accessing email off campus, contact the Computer Help Desk at 248.203.2330.

Students' email accounts are composed of the first letter of their first names, the first letter of their last names, and their nine-digit student identification numbers. When students send email using their Lawrence Tech email accounts, they should be mindful that these reveal their student identification numbers. If students do not wish others to see their identification numbers, they should elect another email account from which to send their email.

Students should note that while using Blackboard, the default email is their Lawrence Tech email account if they elect not to change their email accounts. This means that when posting notices on discussion boards, etc., within Blackboard, students' Lawrence Tech email accounts (which include ID numbers) are visible to others within the class.

Blackboard has an option for a class roster that shows the students' names and email addresses. The instructor should have this option shut off so as not to reveal this information.

STUDENT INSURANCE

A 12-month health and accident insurance policy is available to all full-time students at a reasonable cost. Contact the DTE Energy One-Stop Center or the Office of the Dean of Students for additional information.

Lawrence Technological University advises all students living in the residence halls to obtain personal property insurance (renter's insurance). Many students may have their personal property covered under their parents' homeowner's insurance policy; check with the insurance provider to determine applicable coverage. Personal property insurance for those students not covered by their parents' homeowner's policy or for students seeking additional coverage is available through National Student Services, Inc. For additional information, visit their website at www.nssinc.com or contact the Office of University Housing.

STUDENT LOUNGES

Student lounges are located in the fireplace area of the Engineering Building, on the lower level of the Architecture Building, and in the lobby of the Science Building. The Einstein Bros. Bagels, hosted by Campus Dining, also has a lounge area located in the atrium of the Buell Management Building. The Commuter Student Lounge is located in Room S202 of the Science Building.

STUDENT RECORDS

Lawrence Tech students may view their academic transcripts, account information, and other student-related information through BannerWeb at <http://my.ltu.edu>. Student

records are located in a secured area that requires the student's Banner identification number (excluding the initials) and PIN to access the information.

VETERANS

Questions regarding benefits under the GI Bill, Michigan National Guard educational benefits, or any funding related to veterans should be directed to Lawrence Tech's Office of Financial Aid (enrollmentservices@ltu.edu or 248.204.2280). Veterans may also contact the U.S. Department of Veterans Affairs (<http://gibill.va.gov>) with questions concerning program eligibility. Veterans Affairs provides a wide range of benefits to veterans. New programs have made some reservists and active duty personnel eligible for benefits.

The monthly allowance for Lawrence Tech veterans is based on the number of credit hours, the number of dependents, and enrollment in a qualified program according to Veterans Affairs guidelines. All veterans receiving GI benefits are expected to maintain Satisfactory Academic Progress (see www.ltu.edu/financial_aid/sap_policy.asp for details).

Veterans Affairs regulations permit only a two-semester probation period unless there are mitigating circumstances as determined by Veterans Affairs. The University will inform Veterans Affairs and the student when the student does not meet academic standards of progress and is no longer eligible for benefits.

Retrospective

“All the worthwhile and precious things in life are only obtained through continuous and exacting effort, and their worth is in direct proportion to the effort put forth for their attainment.”

**Russell E. Lawrence
1889–1934**

It was a firm belief in the future that motivated Russell E. Lawrence to found a university in 1932 – in the midst of the economic chaos of the Great Depression. While less farsighted individuals made predictions of gloom, Russell Lawrence and his brother, E. George Lawrence (who led Lawrence Tech during its formative years from 1934 to 1964), turned a dream of preparing students for leadership in the new technical era into reality.

For over 75 years, Lawrence Tech has continued to prosper and accelerate its growth, hone its educational philosophy of theory and practice, build important community and professional alliances, and forge partnerships with the firms, organizations, and industries who hire Lawrence Tech alumni.

Wayne H. Buell, who served as president from 1964 to 1977 and as chair of the board and chief executive officer until 1981, worked to build a firm foundation for the University’s early emergence as a technological leader. He first advanced the notion that Lawrence Tech was a private university serving a public purpose.

Several new buildings, the addition of graduate degrees, and the massive growth of computer facilities marked the presidency of Richard E. Marburger, who served as president, 1977–93, and also as chair of the board of trustees and chief executive officer, 1981–93.

Charles M. Chambers served as president 1993–2006 and chancellor in 2006. During his presidency, he oversaw significant enhancement of the University’s international reputation as a distinguished center of technological education and research. A Strategic Plan and Campus Master Plan were adopted to guide the University. Other achievements include: construction of the University Technology and Learning Center, University Housing-North, the A. Alfred Taubman Student Services Center, the campus quadrangle, and the Center for Innovative Materials Research; establishment of a Faculty Senate; conversion of the computer system to a client server model with full Internet2 connectivity and online library access; creation of Michigan’s first completely wireless laptop campus; and expanded bookstore, dining, and student activity facilities.

Lewis N. Walker was named interim president in February 2006, became president on July 1, and was inaugurated on November 2, 2006. He had previously served as provost, the University’s chief academic officer, and executive vice president. Walker is committed to developing the leadership skills of Lawrence Tech’s students and is working with faculty to add a leadership component to the curricula of all undergraduate

programs. In addition, he is forging partnerships with universities worldwide that bring international students to campus and provide further opportunities for Lawrence Tech students to study abroad.

Lawrence Tech was founded on the principle that every person should have the opportunity for a college education. From the beginning, there were no restrictions on entering students relating to race, sex, color, creed, or national or ethnic origin – only the requirement that students qualify for admission and have the desire to succeed. Working students could earn a baccalaureate degree by attending evening programs, day programs, or a combination of the two – a feature unique in 1932 and still remarkable today.

The school was originally called Lawrence Institute of Technology. Its present name, Lawrence Technological University, was approved on January 1, 1989, by the State of Michigan, and more clearly describes Lawrence Tech's undergraduate and graduate mission.

Lawrence Tech was founded as a college of engineering with only a few hundred students and a handful of faculty. Today it offers over 80 programs in four colleges, with a total enrollment of nearly 5,000 students, and employs over 400 full- and part-time faculty. In terms of enrollment, Lawrence Tech is among Michigan's largest independent colleges.

In 1950, associate programs were added to Lawrence Tech's baccalaureate offerings. In 1952 the College of Management was created, having its origins in an earlier industrial engineering curriculum. Master's degree programs in management were launched in 1989. The College of Architecture and Design evolved in 1962 from the former architectural engineering department and in 1993 launched a Master of Architecture program. The College of Arts and Sciences was established in 1967. Master's degree programs in engineering were begun in 1990 and in Arts and Sciences in 1997. Doctoral programs were launched in 2002.

Concurrently, there has been an enormous expansion and improvement of facilities. The University's first campus was located in Highland Park, in a building leased from Henry Ford, adjacent to the huge manufacturing facility where he built the Model T and perfected the moving assembly line. As enrollment grew, the University acquired acreage in Southfield and in 1955 opened its first building on what had been a General Mills research farm. The campus has since expanded to over 100 acres and 12 major buildings, as well as the Frank Lloyd Wright-designed Affleck House in Bloomfield Hills, which was donated to the University in 1978.

In 1977, Lawrence Tech shed its "commuter" classification by opening the nine-story University Housing-South residence hall. The 1980s and 1990s were distinguished by the opening of the Wayne H. Buell Management Building and the Don Ridler Field House, numerous improvements to existing buildings, and a substantial increase in state-of-the-art laboratory and computer equipment. The University Technology and Learning Center opened in 2001, University Housing-North in 2002, and the A. Alfred Taubman Student

Services Center and the Center for Innovative Materials Research (CIMR) in 2006. The Center for Innovative Materials Research was dedicated in 2008.

The University also offers programs at education centers in southeastern and northern Michigan as well as international programs in Asia, Europe, Mexico, and the Middle East.

Admission to the University

The University has a selective admissions process – the objective of which is to identify men and women who have the highest potential for advancement in their chosen field of study. While the applicant’s academic record is a reliable measure for the prediction of academic success, the admissions decision is more complex than admitting students on the basis of a numerical formula. With this intent, Lawrence Tech considers, in addition to the applicant’s previous academic record, factors that demonstrate an aptitude for successful study.

For the admissions requirements for any of Lawrence Tech’s undergraduate degree programs, see the *Undergraduate Catalog*.

ADMISSION TO GRADUATE PROGRAMS

To initiate the application process, contact the Office of Admissions (800.CALL.LTU or 248.204.3160) to receive the Application for Graduate Admission or visit the Lawrence Tech website at www.ltu.edu/futurestudents/apply.asp to apply online. In order to apply to any graduate program, students must submit the following to the Office of Admissions:

1. Completed Application for Graduate Admission;
2. Application fee (nonrefundable);
3. Official transcripts of all completed college work;
4. Any additional material as required by the college offering the degree (i.e., GMAT/GRE scores, resume, letters of reference, portfolio, etc.). These requirements are described under the program of interest, later in this *Catalog*.

Application materials received will be carefully evaluated by the college’s Graduate Admissions Committee. To facilitate this process, the graduate applicant must provide all documentation at the time designated by each college. After the application has been reviewed by the committee, the student will be notified of the results by the Office of Admissions. The Office of Admissions will be the student’s point of contact from the application stage through the orientation program; the only exceptions are for certain events specified by the pertinent college.

In general, a cumulative undergraduate GPA of at least 3.0 is required for regular admission to the graduate programs. For students with less than a 3.0, the college’s Graduate Admissions Committee will carefully review the academic performance during the last two undergraduate years, letters of recommendation, and any work experience to determine acceptability to the graduate programs. For specific admission requirements, please see the program listings, which follow in this *Catalog*.

Applicants who do not meet all of the conditions for regular admission may be considered for conditional admission, provided they show exceptionally high aptitude. A conditional graduate student will be granted regular admission status only after maintaining the stipulated conditions as specified by the college’s Graduate Admissions Committee.

GRADUATE ADMISSIONS TESTS

Certain programs may require one of the standardized graduate tests for admission. The GMAT and GRE exams are prepared by the Educational Testing Service and are administered regularly throughout the United States and various foreign countries. Arrangements to take the test should be made by requesting an application from:

Graduate Management Admissions Test
Educational Testing Service
PO Box 6103
Princeton, NJ 08541

or

Graduate Record Exams
Educational Testing Service
PO Box 6000
Princeton, NJ 08541

TRANSFER STUDENTS

Policies pertaining to transfer students from other accredited graduate programs may be found later in this *Catalog* in the description of the specific program of interest. Each graduate program establishes its own policies on transfer credit. Students considering transferring to Lawrence Tech from other universities must follow the same admissions requirements as described above in Admission to Graduate Programs section. Any questions concerning credit evaluations must be resolved by the end of the first semester at Lawrence Tech.

Students may be required to submit additional evidence (e.g., course syllabi, catalog descriptions, portfolio, and tests/examinations) in order to justify transfer of credits. The college's Graduate Admissions Committee may require the applicant to demonstrate proficiency in the subject either through an interview or a written examination prepared by faculty members who have expertise in the subject/discipline. See your graduate program administrator for specific policies on transfer credit pertaining to your degree program.

GUEST STUDENTS

Graduate students may apply to Lawrence Tech as a guest student from another Michigan college or university. Guest students are allowed to enroll in specific courses for which all prerequisites have been met and for one semester only. Lawrence Tech students have enrollment preference over guest students.

Application as a guest student requires:

1. A completed Michigan Uniform Guest Application from the Michigan institution in which the student is enrolled, which specifies the courses to be taken and includes the approval and official seal of the academic advisor and/or registrar.

2. A copy of the college transcripts showing current GPA and prerequisites for the course(s) requested.

Students not currently enrolled in collegiate programs and those who attend institutions outside of Michigan must apply as a regular graduate student or as a non-degree special student.

NON-DEGREE SPECIAL STUDENTS

Graduate students who elect to take courses but who do not wish to pursue a degree program may enroll for one semester as a special student by submitting the following to the Office of Admissions:

1. A completed application for admission and the non-refundable fee;
2. Unofficial copies of transcripts from institutions attended.

Special students must meet the normal requirements for graduate admission. Lawrence Tech students have enrollment preference over special students.

A special student who wishes to obtain regular admission to a graduate program must make a regular application to that program and meet all admissions requirements.

Credit for courses taken while a special student may be applied toward the degree if approved by the college's Graduate Admissions Committee as part of the admissions process. When courses taken as a special student are applied toward a degree, the cumulative GPA will be computed from all graduate courses taken at Lawrence Tech.

INTERNATIONAL STUDENT ADMISSION REQUIREMENTS

International students must have above average grades in their post-secondary academic course work. International students applying for graduate programs must meet all admissions requirements. In addition, the following items must be submitted to the Office of Admissions no later than 60 days before the start of the desired semester of enrollment:

1. Completed application for admission signed by the student and nonrefundable fee in U.S. currency;
2. Official transcripts from all colleges attended sent directly from the issuing institutions;
3. Course-by-course WES evaluation of your official college transcripts (see wes.org) if requested by the Office of Admissions. The College of Architecture and Design requires a WES evaluation of all applications originating from institutions with which the college has no course articulation agreement.
4. Evidence of English proficiency;
5. Affidavit of Support (if I-20 is requested);
6. Visa Transfer Form (for F-1 students transferring from a U.S. college or university).

TRANSFERS WITHIN THE UNIVERSITY

Students wishing to transfer to another college within the University (example: architecture to engineering) must apply to that program and meet all regular admissions requirements (see Admission to Graduate Programs section).

CHANGING MAJORS WITHIN A COLLEGE

Currently enrolled students desiring to change majors within their college (example: Master of Business Administration to Master of Science in Information Systems) do not need to reapply for admission. Students should contact the graduate program administrator of their college and complete the appropriate change of curriculum form. In some cases, administrative paperwork may be required through the Office of the Registrar. Evaluation of credits into the newly desired program will be determined by the college's Graduate Admissions Committee.

INTERRUPTION OF STUDIES

Students who do not enroll for classes within three calendar years must reapply for admission. Readmission is not automatic; admission policies and academic programs in place at the time of readmission will apply. Students returning less than three calendar years from their previous enrollment may register in their original program without readmission. However, returning students who wish to change colleges or who have transfer credit from other institutions must reapply as transfer students and will be subject to the curricula and requirements of the chosen program upon their return.

RETURNING ALUMNI

The application fee is waived for Lawrence Tech alumni applying to master's and doctoral programs.

ADMISSIONS ADVISING AND TOURS

The Office of Admissions is open year-round (except holidays). Admissions counselors are available on a walk-in basis on weekdays. Students are encouraged to call the Office of Admissions at 800.CALL.LTU if they have any questions, if they require information, or if they would like to schedule a tour of the campus.

Tuition and Fees

Lawrence Technological University sets tuition rates with the one goal of providing students with the best possible learning experience. The emphasis is on quality. Concurrently, the University has a long tradition of prudent management that has allowed it to contain costs and provide students with extraordinary value for their tuition investment, but never at the expense of Lawrence Tech's primary emphasis.

Tuition at Lawrence Tech is used to cover many of the costs associated with a student's learning experience. Remaining expenses are funded through support from the University's alumni and friends, including gifts from individuals, corporations, and foundations.

Tuition and fees are normally established on an annual basis. However, the University reserves the right to make changes in these charges or to initiate or delete charges without notice. The schedule of current tuition and fees is published separately from this *Catalog* and are available at www.ltu.edu/registrar_office/tuition_fees.index.asp or from Lawrence Tech's Offices of Admissions, Business Services, or Enrollment Services/Registrar.

PAYMENT OF TUITION AND FEES

Tuition and fees are due in two installments each semester.

1. All payments of fines must be made at the DTE Energy One-Stop Center located in the Taubman Student Services Center. No other University department can accept payment.
2. Outstanding fines are considered as balance due items and non-timely payment may result in late charges.
3. Students may not register for additional semesters, and transcripts are not released, until balances are paid.

METHOD OF PAYMENT

Students can make payments on their accounts using any of the following methods:

1. Pay with cash, check, money order, or credit card at the DTE Energy One-Stop Center in the A. Alfred Taubman Student Services Center
2. Mail a check, money order, or appropriate credit card information
3. Phone (248.204.2280) or fax (248.204.2229) appropriate credit card information to the One-Stop Center.
4. Use a credit card via BannerWeb at <http://my.ltu.edu>
5. Via the Drop Box located to the side of the DTE Energy One-Stop Center.

COSTS FOR WITHDRAWAL

Costs for withdrawal are established as stipulated by federal regulations. The date when credit for withdrawal will be received can be obtained from Enrollment Services/Office of the Registrar.

A full tuition refund will be granted for all drops completed within the Drop/Add period. Official Drop/Add period dates for each semester are available at www.ltu.edu/registrar_office/calendar_final_exam.index.asp.

After the Drop/Add period, no refunds are provided. Registration fees, activity fees, graduation fees, and course fees are non-refundable and are not included in the withdrawal credit calculation. Balances remaining after the drop adjustments must be paid based upon the University policy for payment of tuition and fees. Credit balances will be refunded.

The semester begins on the first day of classes as listed in this *Catalog*, unless otherwise indicated.

The date of withdrawal is the date the student's drop form is validated by Enrollment Services/Office of the Registrar, the postmark date of the letter of withdrawal, or the date the student completes the withdrawal on BannerWeb at <http://my.ltu.edu>.

All students withdrawing from classes may have their financial aid eligibility adjusted or cancelled for the semester and will be subject to Lawrence Tech's federal Return to Title IV and Satisfactory Academic Progress policies. For additional information, see Financial Aid in this *Catalog*.

STUDENT TUITION APPEAL PROCESS

If students wish to receive an exception to University policy and drop classes after the tuition refund deadline and receive a refund of any type or wish to have the late registration or the late transaction fee waived, they should submit to Enrollment Services/Office of the Registrar the Tuition and Fee Appeal Form, along with a letter explaining the request and the rationale for the request. All supporting documentation should be submitted at this time (e.g., medical documentation). The appeal will not be accepted or reviewed without all information in hand.

The registrar then prepares a packet of information for the Appeals Committee that includes the student's current semester schedule, the tuition statement for the current and previous semesters, a list of the student's courses and grades, and the student's financial aid status. The Appeals Committee (composed of the registrar, dean of students, director of financial aid, director of admissions, and supervisor of student accounting) reviews each student request and makes a determination. The committee may also contact the student's instructor(s) to inquire as to the student's attendance record and current grade in the course. The registrar then sends a letter to the student with the decision.

Students should be aware that if an exception is made, the amount of their financial aid may be impacted and in some circumstances they may potentially owe the University money.

It is important to note that exceptions to University policy are made only in rare circumstances, such as a debilitating illness. Requests made because of difficult work schedules or class schedules will not be considered.

Financial Aid

Financial assistance at Lawrence Tech is granted without regard to an applicant's race, sex, color, age, handicap, marital status, or national or ethnic origin. The financial aid application procedure for both new and enrolled students interested in federal, state, and institutional programs begins by completing the Free Application for Federal Student Aid (FAFSA) every year after January 1. The online FAFSA can be found at fafsa.ed.gov or www.ltu.edu/financial_aid/federal_aid.index.asp.

All students are strongly encouraged to explore their financial aid eligibility and complete the Free Application for Federal Student Aid, otherwise known as the FAFSA. The FAFSA can be completed online at www.fafsa.ed.gov and is the primary application piece required for federal, state, and institutional financial aid consideration. The FAFSA must be completed annually and no earlier than the January 1 prior to the fall semester. To maximize their chance of receiving financial aid, students should complete the FAFSA by March 1 before the fall semester every year. To provide accurate income, tax, and asset information, students (and parents, if applicable) should consider moving up their appointment with their tax preparer to early February if possible.

All financial aid applications will be processed and eligibility will be established based on the availability of funds. Also, some students are selected for a review process called Verification. Verification requires that students (and parents, if applicable) selected provide various documentation to support the information provided on the FAFSA. If students are selected, they will be notified by the school that they must provide the needed information. This information should be turned in or mailed to the DTE Energy One-Stop Center in the A. Alfred Taubman Student Services Center by April 1 for early consideration. All information provided after April 1 will be reviewed and processed as a late application (late applicants may qualify for limited funding).

Students must provide accurate and timely information and documentation to make the application review and awarding processes as smooth as possible. Generally speaking, from the time the FAFSA is submitted to the time an award notice is prepared and sent, it can take between two and six weeks.

New students at Lawrence Tech are notified of their financial aid awards beginning in April. Returning students are notified of their awards beginning in May.

STATE TUITION GRANTS FOR MICHIGAN RESIDENTS

Lawrence Tech students in need of financial aid have a special opportunity for assistance through the State of Michigan Tuition Grant program, which is exclusively for students attending independent Michigan colleges. Lawrence Tech students may receive outright grants of \$100 to \$2,750 toward yearly tuition, depending upon need, course load, and the availability of funds. Graduate students currently are eligible for four semesters of Michigan Tuition Grant payments. Please be aware of State of Michigan budget conditions that may impact the eligibility and availability of funds.

Requirements

To qualify for a Michigan Tuition Grant, a graduate applicant must be a U.S. citizen or an eligible non-citizen of the United States and must have been a continuous Michigan resident since July 1 (of previous year), and must be at least a half-time student.

How to Apply

Graduate students should complete the Free Application for Federal Student Aid (FAFSA) by carefully reading all of the instructions. This process can be completed online at www.fafsa.ed.gov. Awards will be prorated down for enrollment of less than six credit hours. The State of Michigan will send a letter to the student to confirm eligibility. If you did not list Lawrence Tech as your first choice when you filled out the FAFSA, you will need to contact the state to notify them that you will be attending Lawrence Technological University (school code: 002279).

Deadlines

The deadline for the fall semester is March 1. This deadline may be extended depending on the availability of state funding. Even if you miss the deadline, it is highly recommended that you apply so the Office of Financial Aid can review your eligibility and the availability of late award funds.

STUDENT LOANS

Federal Subsidized Stafford Loan Program

Graduate students may borrow up to a maximum of \$8,500 per year based on full-time enrollment (six credit hours). Loan eligibility is evaluated each semester and subject to change due to changes in enrollment status. Students must be enrolled at least half-time (three credit hours) in an eligible degree program at Lawrence Tech to be eligible for this loan. The federal government pays the interest on this loan during the grace and deferment periods (until six months after graduation, or falling below half-time status). Go to www.ltu.edu/financial_aid for further information.

Federal Unsubsidized Stafford Loan Program

Graduate students may borrow up to a maximum of \$20,500 per year (including Subsidized Stafford Loans) based on full-time enrollment (six credit hours). Loan eligibility is evaluated each semester and subject to change due to changes in enrollment status. Students must be enrolled at least half-time (three credit hours) in an eligible degree program at Lawrence Tech to be eligible for this loan. Need is not a factor for this loan and the student is responsible for paying interest on the loan during the grace and deferment periods. The federal government does not pay the interest during the grace and deferment periods. Payment options can be viewed at www.federalstudentaid.ed.gov.

Stafford Maximums Per Year (beginning 2008–09)

Student Level and Dependency Status	Maximum Stafford	Maximum Subsidized
	(subsidized and unsubsidized)	
Graduate/professional	\$20,500	\$8,500

Lifetime Limits (beginning 2008–09)

Student Level and Dependency Status	Maximum Stafford	Maximum Subsidized
	(subsidized and unsubsidized)	
Graduate/Professional	\$138,500*	\$65,500*

***The graduate debt limit includes loans received for undergraduate study.**

Alternative Loans

In addition to the Stafford loans, graduate students have access to a variety of alternative loans. The application process and terms for alternative loans vary by program and credit worthiness. Most students can receive funding regardless of financial need.

FEDERAL BENEFITS FOR VETERANS

The U.S. Department of Veterans Affairs (VA) provides a wide range of benefits to veterans. Veterans should contact the VA on questions concerning eligibility. New programs for some reservists and active duty personnel eligible for benefits are available as well.

The amount of the monthly allowance for Lawrence Tech veterans is based on the number of credit hours, the number of dependents, and the specific program of qualification.

All veterans receiving GI benefits are expected to maintain satisfactory academic progress. VA regulations permit only a two-semester probation period unless there are mitigating circumstances as determined by the VA. The University will inform the VA and the student when the veteran does not meet academic standards of progress and is no longer eligible for benefits.

For additional information and details, contact the DTE Energy One-Stop Center at 248.204.2280.

BENEFITS FOR MICHIGAN NATIONAL GUARD PARTICIPANTS

Members of the Michigan Air and Army National Guard (MIANG/MIARNG) may be eligible to receive a grant from Lawrence Tech for up to 45 percent of base tuition and fees for full-time students listed in the current edition of *College Costs and Financial Aid*

Book, published by the College Board. The grant will increase annually, as necessary, to remain at the 45 percent range of base tuition and fees as long as the student remains enrolled at Lawrence Tech. Grants for part-time students are prorated. MIANG and MIARNG members, including both prior and non-prior service members, will be awarded the grant based on the following eligibility criteria:

- Member is certified to be in good standing in the MIANG or MIARNG.
- Member is admitted to a graduate degree-granting program at Lawrence Tech.
- Member meets Lawrence Tech's Michigan residency requirements, or is granted a waiver by the University.
- Member maintains satisfactory academic progress as determined by Lawrence Tech.
- Member is responsible for the cost of tuition for courses that are repeated and the Lawrence Tech grant will not apply to the number of credits for the repeated course(s).

Procedures

1. Members of the MIANG/MIARNG apply for admission to a degree-granting program at Lawrence Tech.
2. Upon approval for admission, members complete and forward the Lawrence Tech/MIANG/MIARNG Grant Application to their MIANG or MIARNG unit representatives.
3. Unit representatives verify that the members are in good standing and forward the applications to the appropriate Education Services Office, MIANG or MIARNG, at Headquarters, Michigan National Guard, 2500 S. Washington Avenue, Lansing, MI, 48913-5101.
4. The Michigan Army or Air National Guard education services officer forwards the applications to Lawrence Tech's Office of Financial Aid.
5. Upon receipt of the completed and verified Lawrence Tech/MIANG/MIARNG Grant Applications, Lawrence Tech's Office of Financial Aid will credit the grant amounts to the members' accounts.

GRADUATE WORK-STUDY PROGRAMS

Graduate students meeting the eligibility criteria for work-study may be awarded funds from either the federal or state government. Students must be enrolled at least half-time (three credit hours) in an eligible degree program at Lawrence Tech to be eligible for work-study. Once notified of eligibility, students should contact the Office of Career Services for a list of potential employers. Once a work-study position is obtained, the student works and receives paychecks through the University payroll system. Work-study provides the opportunity for students to receive financial aid funds through employment opportunities on and off campus. Students must meet citizenship and residency requirements for each program.

JOB PLACEMENT SERVICE

The Office of Career Services maintains a list of available part-time and full-time jobs with area businesses and industries. Career opportunities, on-campus student employment, career fairs, and on-campus interviews are posted on CareerQuest (www.ltu.edu/career_services/careerquest.asp).

ADDITIONAL FINANCIAL AID INFORMATION

Basis for Awards

Students with the greatest need, as determined by standard federal methodology (resulting from completion of the FAFSA), receive the highest consideration for need-based funding depending on the availability of funds and the timing of the application. Students meeting published application deadlines will have a greater chance of receiving preferred types of financial aid funds.

Basic Costs

Personal expenses for room, board, clothing, recreation, laundry, travel, books, and incidentals vary according to individual lifestyle. An estimate for the total cost of a student's education can be made by adding tuition and fees to these items. The Office of Financial Aid provides an estimated cost of attendance at www.ltu.edu/financial_aid/estimate.asp. This can be used to determine eligibility for need-based funding. Cost minus the Expected Family Contribution (EFC) is the basis for determining the need for financial aid. The EFC is calculated based on the information provided on the FAFSA each year.

Satisfactory Academic Progress

All students receiving financial aid are required to maintain satisfactory academic progress. Graduate students must maintain a minimum GPA of at least 2.75 to remain eligible for financial aid.

Students are also expected to make progress toward completing degree requirements. Students who withdraw from or drop one-third or more of the courses in which they have enrolled during the year will not meet the standards of academic progress for financial aid consideration. Also, students must complete their program of study by attempting no more than 150% of the credit hours required to complete their degree.

Contact the DTE Energy One-Stop Center or go to www.ltu.edu/financial_aid/sap_policy.asp for information regarding the appeal and renewal procedure when standards of progress are not met.

U.S. Citizenship

Students must be U.S. citizens or eligible non-U.S. citizens as defined by the U.S. Department of Education to qualify for all financial aid programs. Federal regulations and University policy significantly limit the types of financial assistance for international students.

Defaulted Student Loans

Students who have defaulted on student loans, owe a refund on a grant, or owe college tuition will not be eligible for any financial aid until the obligation is fulfilled and monies paid back to the University, the federal government, the state government, or the lender of interest.

Verification of Financial Statement Information

Lawrence Tech reserves the right to request from its students federal IRS income tax documentation along with a verification form for the entire family for the financial information provided. Students refusing to provide family income tax information will be denied financial aid. For families not filing a federal tax form, other types of verification will be required.

Financial Aid and Credit Hour Reduction

Financial aid may be reduced or canceled if a student takes less than six credit hours per semester. Award amounts for need-based financial aid are based on the number of credit hours attempted and a student's demonstrated financial need. Students planning to drop all or part of their classes should contact the DTE Energy One-Stop Center to discuss the effects on their financial aid awards for the semester.

Refunds of Excess Financial Aid

When financial aid and other payments exceed a student's charges, the student is entitled to a refund. Student Accounting will refund excess financial aid to the student, parent, or other payment source within 14 days of the posting of a credit balance. A check will be mailed to the current mailing address on file, or students can elect to have the check directly deposited.

Cancellation of Loan

Federal Stafford, Federal PLUS, and Federal Perkins loan borrowers have the right to cancel their loan disbursements within 14 days of the disbursement notice. Should students decide to cancel the disbursement of their federal loans, they should contact the DTE Energy One-Stop Center at enrollmentservices@ltu.edu in writing within the specified time period. By canceling the disbursement, students will be responsible for any unpaid tuition and fees, as well as repayment of loan funds already paid to them.

Enrollment Status

All initial awards are based on full-time status. Grant awards will be pro-rated down for enrollment of less than full-time, and student loan eligibility will be reevaluated and may change due to changes in enrollment status. Students must be enrolled in an eligible degree program, and most funds require at least half-time (for graduate students, three or more credit hours) enrollment status. Student awards are subject to change due to changes in enrollment status and/or funding levels at any time.

Adjustments to Aid

Within certain time limits, tuition adjustments may be made to the students' financial account. There are times, however, when students receive no tuition credit/refund for dropped courses. See the Tuition and Fees section of this *Catalog* or visit www.ltu.edu/registrars_office/tuition_fees.index.asp. It is the students' responsibility to know these dates and adhere to them.

Students should always check with the DTE Energy One-Stop Center for advice on the impact any change will/or could have on their financial aid.

Withdrawal from Lawrence Tech

Students may be billed for a portion or all of their charges if they withdraw from the University. The bill calculated as a result of withdrawal will depend on the effective date of the withdrawal, the percentage and amount of institutional refund, and/or the last date of class attendance.

You must also terminate any work-study employment. If you have received a Federal Stafford Loan, you should contact your lender and arrange for an exit interview with the Lawrence Tech Office of Financial Aid. Your eligibility for financial aid will be determined, or recalculated, by the use of federally mandated procedures which may affect the aid already applied toward your account or previously refunded to you. Depending on when the withdrawal occurs, you may be required to repay all or part of the aid received.

Students should always check with the DTE Energy One-Stop Center prior to withdrawal for advice on the impact it will/or could have on their financial aid.

If a student receiving Title IV funds completely withdraws (www.ltu.edu/financial_aid/financial_aid_IVfunds.asp) from classes through 60 percent of the term, the University is required to determine how much of the financial aid was earned up to the time of withdrawal. The University and/or the student must return unearned Title IV funds to the federal government. This situation could result in the student owing aid funds to the University, the government, or both.

Auditing Classes

Students who audit classes are not eligible to receive financial aid for audited class work.

Other Sites and Programs

All students must be in an eligible degree seeking program at Lawrence Tech at a federally approved site in order to qualify for most financial aid funds. Contact the One Stop Center if you have any questions about your eligibility.

Academic Regulations

The policies and procedures described in this *Catalog* determine the academic status of graduate students enrolled in the University. Exceptions to these policies and procedures may be considered only upon a written request to the Office of the Provost or the designated/appropriate office. Lawrence Tech reserves the right to update these policies and procedures as necessary. Updated policies and procedures are available online through the University's website, ltu.edu. In addition, students will be notified of the changes via their University email account and/or Blackboard. For policies pertaining to undergraduate programs, see Lawrence Tech's *Undergraduate Catalog*.

CLASSIFICATION OF STUDENTS

Classification as a part-time or full-time student is based upon the weekly academic load that the student carries. Graduate students are considered full-time when enrolled for six or more credit hours.

CREDIT HOUR

The University converted from a quarter credit system to a semester system, effective beginning in the fall of 1994. Work completed prior to August 1994 is recorded in standard quarter hours. Work completed after August 1994 is recorded in semester hours. Quarter hours can be converted to semester hours by multiplying the number of quarter hours by two-thirds.

GRADUATE GRADING SYSTEM

A record of grade points is kept in the student's permanent record and is used to determine his or her overall scholastic average. The following grades are computed in the grade point average:

Grade	Points per Credit Hour
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
F	0.0
WF	0.0 (failure due to non-attendance)

The grades D, D+, and D- are not used in graduate programs.

The following grades are not computed in the grade point average:

W	Withdrawal
X	Audit
CR	Credit

NC	No Credit
I	Incomplete
DG	Deferred Grade
NR	No Report
TR	Transfer Credit
ZZ	Transfer Courses in Progress
IP	In Progress (awarded to dissertation course)

RECOMPUTATION OF GRADE POINT AVERAGE

Graduate students in the College of Architecture and Design, College of Arts and Sciences, and College of Engineering are not eligible for grade point average recalculation. Graduate students in the College of Management may repeat only one course with a failing grade, one time during the course of their degree program.

INCOMPLETE

A grade of “I” is given only under extraordinary circumstances for course work that has been of satisfactory quality and, in the judgment of the instructor and the instructor’s dean, adequate to justify a reasonable extension of time. It is assigned only in cases in which the student has completed satisfactorily the major portion of the course requirements. Students receiving an “I” may not attend the class during a succeeding semester. Instructors must change an “I” to a grade other than a “W” no later than one calendar year following the end of the semester. After one year, if course requirements are not met, the “I” will be converted to an “F.”

GRADE CHANGES

The electronic entry of grades submitted by instructors at the end of each semester is the official record of grades. Grade changes, when necessary, are done by the instructor with the approval of the department chair and dean. The registrar may determine that the provost’s approval is also required in exceptional or unusual circumstances. Any disputes concerning grades must be resolved within one semester after the course was completed.

DISPUTE OF GRADES

Students who wish to dispute their grades have one semester to address the issue. The appropriate procedure for disputing grades, along with any other aspect of a course, is as follows: The student must first speak with the instructor of the course; if the resolution is not what the student hopes to achieve, the next course of action is to speak with the department chairperson. If the outcome from addressing the issue with the department chair is not what the student hopes to achieve, the student should then address the issue with the dean of the college. If the resolution is not what the student hopes to achieve, the last and **FINAL** course of action is to speak with the provost. The ruling of the provost is **FINAL** and no further disputable by the student.

AUDITING CLASSES

Anyone wishing to audit a course must submit an audit request form along with the regular registration forms. These forms are available in Enrollment Services/Office of the Registrar. No credit is granted for courses that are audited. Starting with the first day of

classes, a student may not change enrollment status from audit to credit or from credit to audit. Full tuition will be charged, and the tuition credit policy applies if the student withdraws.

WITHDRAWAL FROM CLASSES

When intending to drop a course or courses or to withdraw from courses, students are responsible for dropping courses online through BannerWeb. The date of the drop or withdrawal will be the date that the student drops the course(s) on BannerWeb. To protect students' right to privacy, drops and withdrawals may not be conducted by telephone or email.

Within certain time limits, full tuition adjustments may be made to the student's financial account. There are times when students receive no tuition credit/refund for dropped courses. Official Drop/Add dates for each semester are available online on BannerWeb at <http://my.ltu.edu> and at www.ltu.edu/registrars_office/important_dates.index.asp. It is the student's responsibility to know these dates and adhere to them.

It is important to note that exceptions to University policy are made only in rare circumstances, such as a debilitating illness. Requests made because of difficult work schedules or class schedules will not be considered.

Students studying at Lawrence Tech with an F-1 or J-1 visa cannot drop classes below full-time status without prior approval from the Office of International Programs.

GRADES FOR COURSES DROPPED

Students who drop a course during the first two weeks of classes during the fall or spring semester will receive a "Drop" on their Registration Form and no grade will appear on their transcript.

Students who withdraw from a course before the 13th week of the fall or spring semester but after the first two weeks of classes will receive a grade of "W."

The last day to withdraw from summer semesters and short courses within the regular fall and spring semester is adjusted for the shorter time period as follows:

Class Duration Period	Last Day/Week to Withdraw
up to one week	third day
up to two weeks	first week
up to three weeks	second week
up to four weeks	third week
up to five weeks	fourth week
up to six weeks	fifth week
up to seven weeks	sixth week
up to eight weeks	sixth week
up to nine weeks	seventh week
up to 10 weeks	eighth week

up to 11 weeks	ninth week
up to 12 weeks	10th week
up to 13 weeks	11th week
up to 14 weeks	12th week
up to 15 weeks	13th week

After the last date to withdraw for any semester, students will not be permitted to withdraw from the course and will receive a grade as determined by the instructor (not a “W”).

Those students who do not attend courses or who miss a designated number of courses, and who do not withdraw from the courses on their own, will be issued the grade of “WF.” This means failure due to non-attendance and will impact the student’s financial aid award and loans.

All withdrawals or drops must be initiated by student action to assure that a “W” will appear on the master grade roster and subsequent transcripts. Faculty may not initiate withdrawal procedures nor may they submit a “W” on the electronic grade entry.

Drop and Withdrawal schedules for each semester may be obtained from Enrollment Services/Office of the Registrar and are available at www.ltu.edu/registrars_office.

SCHEDULE OF CLASSES

Programs for graduate students are outlined in this *Catalog*. Class schedules giving the particular days and the hours of the various classes are made available during registration for each semester online at www.ltu.edu and on BannerWeb at <http://my.ltu.edu>.

GRADE REPORTS

Grades are available online at the end of each semester through BannerWeb at <http://my.ltu.edu>. Report cards are mailed only upon student request to Enrollment Services/Office of the Registrar. It is the students’ responsibility to seek their grades at the end of each semester.

CHANGE OF CLASS SCHEDULE

Beginning the first day of classes, students may change their schedule by adding or dropping course online on BannerWeb at my.ltu.edu. Students are responsible for completing their own Drop/Add procedure and retaining confirmation of the transaction. Classes must be added during the first two weeks of classes.

All changes to students’ schedules are effective on the date conducted via BannerWeb. Students are not permitted to attend courses without being officially registered.

ATTENDANCE

Class attendance records of students are kept by all members of the faculty. The consequences of absenteeism will be determined by the instructors and will reflect their policy and judgment with respect to the effect of attendance on the students’ final grades.

PREREQUISITES FOR COURSES

Students are responsible for successfully completing the prerequisite courses listed in this *Catalog* for all courses in which they are registered. In those exceptional circumstances where a prerequisite may be waived, the student must complete the Prerequisite Waiver Form and submit it to the department head or dean of the college offering the course. If a prerequisite is waived, it is for one semester only and does not exempt the student from taking the waived prerequisite in the future.

A student who is determined to have enrolled in a course without completing the required prerequisites or obtaining an authorized waiver may be required to withdraw at any time during the semester and will forfeit tuition and fees according to the normal University tuition credit policy.

ACADEMIC PROBATION

Failure to Make Academic Progress

Any student whose overall grade point average falls below 3.0 at the end of a semester will be placed on academic probation. Students on academic probation are required to have an advisor's signature to register or to add or drop any class.

Academic Suspension and Dismissal

Any student whose cumulative grade point average remains below 3.0 at the end of three consecutive semesters of their enrollment or any student on academic probation who fails to meet the requirements of that probation will be suspended from the University for a minimum of one calendar year. Veterans who do not meet the aforementioned requirements will lose their university certification for Veterans Administration benefits. Architecture students are also subject to the continuation requirements as described below.

At the end of the designated suspension period, undergraduate students who have been suspended from the University for academic reasons may submit a written petition for readmission to the chair of the Academic Standing Committee. This petition should be received six weeks before the first day of class for the semester in which the student wishes to return.

Students who have been suspended and subsequently readmitted who fail to meet the conditions of their readmission will be dismissed from the University. Students dismissed from the University under these circumstances may not be readmitted.

The University will not accept transfer credit for courses taken at another college or university during a period of one calendar year following suspension.

Excessive Repeating and Withdrawal

Students are expected to successfully complete all the courses in which they are registered and are encouraged to plan their schedules to avoid overloads and conflicts that would interfere with that objective. Any student who engages in excessive withdrawal from classes or who repeats a required course more than once is subject to academic

review and may be placed on academic probation regardless of the overall grade point average. Subsequent continuation of this behavior may result in suspension or dismissal. Students may only register for the same course up to three times. After that point, the dean's signature is required to register. Circumstances demonstrably beyond the students' control may excuse them from this requirement, but poor scholarship will not.

ACADEMIC STANDING COMMITTEE/READMISSION

Graduate students who have been suspended from the University because of poor scholarship may, after one calendar year, submit a written petition for readmission to the dean of students or the chairperson of the Academic Standing Committee. This petition should be received at least six weeks before the first day of class of the semester in which the student wishes to return.

Evidence of planning, curriculum load, and work activities are taken into consideration when reviewing petitions for readmission. Petitions should be well organized, typed, and should include the student's current address, phone number, student number, curriculum, and reasons why the student had previous academic difficulty and why the student now feels he or she can be successful if readmitted.

The petition may include a letter from an employer attesting to competent work and maturity. An official transcript of courses taken at another institution must be submitted at the time the student applies for readmission. However, credit is not allowed for any work taken at another institution for the period of one calendar year following suspension. Once admitted, a student is required to abide by the graduation requirements outlined in the *Graduate Catalog* at the time of readmission. A student's requirements for graduation may be subject to reevaluation.

Students wishing to reapply to a graduate or professional degree program after having been suspended must make a regular application for admission.

Students reapplying to the Master of Architecture program in the College of Architecture and Design must resubmit a portfolio of work completed in previous design courses, including any work they may have done in a professional capacity while away from the academic setting. The work submitted must be in accordance with admission guidelines. Students who have been suspended and subsequently readmitted and who then fail to meet the conditions of their readmission will be dismissed from the University. Students dismissed from the University under these circumstances may not be readmitted.

ENROLLMENT AT OTHER INSTITUTIONS

Students are expected to complete all courses for a Lawrence Tech degree at the University once they have been admitted. Transfer credit is generally not given for courses taken at other institutions after enrollment at Lawrence Tech, unless those courses cannot be completed at the University.

Students enrolled at Lawrence Tech may not take courses at other institutions after admission to Lawrence Tech and expect those credits to transfer without the prior written

permission of the Credit Review Committee. Any courses taken in violation of this policy will be denied transfer or additional credit.

To be eligible for guest credit, students must have:

1. Achieved a 3.0 GPA at Lawrence Tech;
2. Satisfied the prerequisites for the course(s) that they wish to take at another institution. If prerequisites are in progress for the requested course(s) at the time of submission of the Guest Credit Approval form, a letter from the instructor(s) is required stating the student's grade in the course(s) as of that date and the instructor's opinion (at that point in time) of the student's capability to continue successfully in the requested course;
3. Completed the Guest Credit Approval form (available in Enrollment Services/Office of the Registrar or at www.ltu.edu/registrars_office/forms_to_print.index.asp).

Students must submit the Guest Credit Approval form to Enrollment Services/Office of the Registrar at least one month before the desired course begins. The Credit Review Committee meets every two weeks and reviews each request individually. The registrar will then send the students letters informing them of the committee's decision.

For those courses approved, the student must receive at least a 3.0 in the course to have it transfer back to Lawrence Tech. It is the student's responsibility to have the official transcript sent to Enrollment Services/Office of the Registrar at Lawrence Tech. Until the official transcript arrives, the credit will not be placed on the student's transcript. In addition, only the course will transfer to Lawrence Tech, not the grade. Lastly, approved guest credit courses may not be transferred back to Lawrence Tech to be used in grade point average recomputation.

TRANSCRIPTS (RECORDS)

A permanent record of all credits earned at or transferred to the University is maintained for each student in Enrollment Services/Office of the Registrar. These transcripts are preserved indefinitely. All graduates are mailed a copy of their academic transcript at Lawrence Tech as soon as possible after their degree is earned.

At all other times, students are charged a nominal fee for official copies of their Lawrence Tech transcript. Copies of transcripts will not be released without the student's authorization in writing. Transcripts will not be issued unless all financial obligations from prior semesters have been settled.

ARCHITECTURAL DRAWINGS AND REPORTS

All two- and three-dimensional architectural drawings and models, as well as reports and other written studies submitted in satisfaction of any required or elective architectural courses, become the property of the University and may be kept or returned at the sole discretion of the dean of the College of Architecture and Design. When such work is kept, arrangements will be made for the students to receive suitable photographic copies as a record of their design work.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights are:

1. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access. Students should submit to Enrollment Services/Office of the Registrar written requests that identify the record(s) they wish to inspect. The University Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Enrollment Services/Office of the Registrar, where the request was submitted, the University Registrar shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of any of the student's education records that the student believes are inaccurate or misleading. Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent to school officials with legitimate educational interests. A school official is defined as a person employed by the University in an administrative, supervisory, academic, or support staff position (including the law enforcement unit and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a person assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:
Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-4605

At Lawrence Technological University the following information is considered Directory Information about a student: dates of attendance, major field of study, class level, degrees and awards received, anticipated degree date, and confirmation that the student is enrolled (enrollment status).

In accordance with the provisions of the Family Educational Rights and Privacy Act (FERPA), this Directory Information can be released to the general public and may be listed in the campus directory, if one is published. Students may withhold this information from being released by completing the Student Request for Non-Disclosure Form. By completing this form, students are requesting that information NOT be released to non-university personnel nor listed in the campus directory, if one is published, for one year. This request remains in effect until removed by the student. Please note that in compliance with federal regulations there are situations in which particular information may be released, upon presentation of official documents, to designated state, local, or government agencies.

Students should consider carefully the impact of their decision to request confidential status. This means that after submission of the form, requests for this information from non-university persons or organizations will be refused. Friends or relatives trying to reach a student will not be able to do so through the University; the student's name will not appear in the printed Commencement program; information that the student is enrolled at Lawrence Tech will be suppressed, so if a loan company, prospective employer, family member, etc., inquires about the student, they will be informed that there is no record of the student's attendance.

Lawrence Tech will honor the student's request to withhold this information but cannot assume responsibility for contacting the student for subsequent permission to release the Directory Information. Regardless of the effect upon the student, Lawrence Technological University assumes no liability as a result of honoring the student's instructions that this information be withheld.

Once a student has designated a confidential classification, it will be removed after one year. If a student wishes the classification removed prior to then, the student should submit a signed authorization requesting that it be removed. This authorization form is available in Enrollment Services/Office of the Registrar.

Policies, Procedures, and Regulations

ACADEMIC HONOR CODE

Academic integrity and honesty are basic core values of Lawrence Technological University. In carrying out its academic mission, Lawrence Technological University, like all universities, depends on the honesty and integrity of its faculty, staff, and students, and for this reason every member of the Lawrence Technological University community is charged with upholding the Academic Honor Code. Actions that breach the Code erode the trust of those who look to universities for honest evaluations of academic work arrived at through honest processes. Violations may also cause individual harm in that reports of performance made to post-graduate schools, professional societies, and employers would inaccurately represent a student's progress.

Lawrence Technological University is committed to creating an academic community that values both individual and collaborative efforts that promote learning and discovery. Such a community expects honesty and integrity in the work of all its members. The Academic Honor Code speaks to the work of individual students within the community. It should not be construed as arguing against the important collaborations that also occur among students on campus. This document is intended to clarify the adjudication of issues regarding academic honesty and fair play for students. Portions of this document have been adapted from the 2002–03 University of North Carolina at Wilmington Academic Honor Code and the 2002–03 Binghamton University Academic Honesty Code.

A. Academic Integrity

Students, faculty, and staff are expected to follow established standards of academic integrity and honesty. Academic misconduct entails dishonesty or deception in fulfilling academic requirements and includes but is not limited to cheating, plagiarism, or the furnishing of false information to the University or a University affiliate in matters related to academics. An affiliate of the University is any person, organization, or company who works in conjunction with Lawrence Technological University for the purposes of assisting students in fulfilling their academic requirements. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the University community have an obligation to report occurrences of dishonesty, each individual is principally responsible for his or her own conduct.

B. Academic Dishonesty Offenses

Violation of any of the following standards subject any student to disciplinary action:

1. Plagiarism

The term "PLAGIARISM" includes but is not limited to (a) the use, by paraphrase or direct quotation, of the published or unpublished work or creative and/or intellectual property in print, product, or digital media of another person without full and clear acknowledgment; (b) the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers, reports, or other academic materials; or (c)

the appropriating, buying, receiving as a gift, or obtaining by any other means another person's work and the unacknowledged submission or incorporation of it in one's own work. Plagiarism is unethical, since it deprives the true author of his/her rightful credit and then gives that credit to someone to whom it is not due. Examples include:

- Quoting, paraphrasing, or summarizing written material, even a few phrases, without acknowledgment.
- Failing to acknowledge the source of either a major idea or an ordering principle central to one's own paper.
- Relying on another person's data, evidence, or critical method without credit or permission.
- Submitting another person's work as one's own.
- Using unacknowledged research sources gathered by someone else.
- Copying portions or outcomes of two- or three-dimensional creative property of previously published work.
- Copying items from Internet websites without acknowledgment of the source.

2. Bribery

The term "BRIBERY" includes the offering, giving, receiving, or soliciting of any consideration in order to obtain a grade or other treatment not otherwise earned by the student through his/her own academic performance.

3. Cheating

The term "CHEATING" includes but is not limited to (a) use of or giving to others any unauthorized assistance in taking quizzes or examinations; (b) dependence upon aids beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (c) the acquisition, without permission, of tests or other academic material belonging to a member of the University faculty or staff; or (d) the unauthorized use of any electronic or mechanical device during any program, course, quiz, or examination or in connection with laboratory reports or other materials related to academic performance.

4. Misrepresentation

The term "MISREPRESENTATION" includes any act or omission undertaken with intent to deceive an instructor for academic advantage. Examples include:

- Using a computer program generated by another and handing it in as one's own work unless expressly allowed by the instructor.
- Lying to an instructor to improve one's grade.
- Lying or misrepresenting facts when confronted with an allegation of academic dishonesty.

5. Conspiracy

The term "CONSPIRACY" means planning or acting with one or more persons to commit any form of academic dishonesty in order to gain academic advantage for oneself or another.

6. Fabrication – The term “FABRICATION” means the use of invented information or the falsification of research or other findings with the intent to deceive and thereby gain academic or professional advantage.

7. Multiple Submissions – The term “MULTIPLE SUBMISSIONS” means submitting substantial portions of the same work for credit more than once, unless there is prior explicit consent by the instructor(s) to whom the material is being or has been submitted.

8. Unauthorized Collaboration – The term “UNAUTHORIZED COLLABORATION” means collaborating on projects, papers, computer programs, lab reports, or other academic assignments where such collaboration has been prohibited by the instructor.

9. Sabotage – The term “SABOTAGE” means deliberately impairing, destroying, damaging, or stealing another’s work or working material. Examples include:

- Destroying, stealing, or damaging another’s lab experiment, computer program, term paper, exam, or project.
- Removing uncharged library materials with the effect that others cannot use them.
- Defacing or damaging library materials with the effect that others cannot use them.
- Hoarding or displacing materials within the library with the effect that others have undue difficulty using them.
- Interfering with the operation of a computer system so as to have an adverse effect on the academic performance of others.

C. Jurisdiction

All students enrolled at Lawrence Technological University are subject to the Academic Honor Code.

D. Responsibility of the University Community

1. General Responsibility

It shall be the responsibility of every faculty member, student, administrator, and staff member of the University community to uphold and maintain the academic standards and integrity of Lawrence Technological University. Any member of the University community who has reasonable grounds to believe that an infraction of the Academic Honor Code has occurred has an obligation to report the alleged violation.

2. Student Responsibility

Each student shall abide by the Academic Honor Code at all times.

3. The Responsibility of Individual Instructors

Instructors are encouraged to make their classes aware of the Academic Honor Code during the first week of each term.

4. Responsibility of the University Administration

The Office of the Dean of Students is responsible for the publication and dissemination of the Academic Honor Code and any amendments or changes approved by the Deans Council with the recommendation of the Faculty Senate and the Faculty Councils of the colleges. All new University faculty, administrative staff, personnel, and students should be advised of the Academic Honor Code upon becoming members of the University community.

5. Responsibility of Enrollment Services/Office of the Registrar and the Office of the Dean of Students

Enrollment Services/Office of the Registrar and the Office of the Dean of Students shall receive and maintain comprehensive records of all matters relating to violations of the Academic Honor Code. Enrollment Services/Office of the Registrar will receive a copy of the decision letter completed by the dean of the college, to be included in the student's academic record.

E. Reporting and Adjudication Procedures

1. An infraction of the Academic Honor Code may be reported by any member of the University community who has knowledge of such infraction. The infraction should be reported to the instructor of the course in which it occurred, where applicable. Such a report should be made within five (5) class days from the time of discovery unless extenuating circumstances prevent reporting.
2. Any student charged with a violation under this Code shall be presumed not responsible until it is proven that, more likely than not, the violation of the rule or regulation occurred.
3. Upon receiving a report of a violation or having reasonable evidence of a violation, the instructor in charge of the course or materials in question will inform the department chair or dean of the college in writing. The department chair or dean of the college will investigate the reported violation. The department chair or dean of the college will inform the student in writing of the reported violation and will request a written response from the student. If necessary, the department chair or dean of the college will conduct an interview with the student. The department chair or dean of the college will determine whether the student violated the Academic Honor Code.
 - a. While action on a complaint of violating the Academic Honor Code is pending, the status of the student shall not be altered except for reasons outlined in Section J of the Student Code of Conduct.
 - b. If the student is found in violation, the student will receive an F grade in the course. This grade will not be recomputed for GPA purposes. The department chair or dean of the college will notify the student in writing of the decision. A copy of the letter will be put in the student's academic record and disciplinary file.
 - c. A student found in second violation of the Academic Honor Code will be expelled from the University. See Article G for expulsion proceedings.

4. If no action is taken by the instructor, the reporting party may file a written report of the allegation of academic dishonesty with the department chair or dean of the college. The department chair or dean of the college will investigate the reported violation. The investigative process will be conducted according to the provisions in Section E-3 above.

5. A student who admits his or her involvement to a University official conducting the investigation in a case of academic dishonesty loses the right to appeal.

F. Appeal Process

1. Where appropriate, a student may appeal a finding of academic dishonesty to the dean of the college in which the course is offered within seven (7) class days. The appeal shall be in writing.

2. An appeal shall be limited to the review of the following:

- a. To determine whether the student received fundamental fairness in the investigative and decision-making process.
- b. To determine whether the facts in the case were sufficient to establish that a violation of the Academic Honor Code occurred.
- c. To consider relevant and material new evidence.

3. A student cannot appeal the sanction(s) for academic dishonesty.

G. Expulsion Proceedings

1. Expulsion proceedings will be initiated by the dean of students for students found in second violation of the Academic Honor Code. The student will be contacted by the Office of the Dean of Students for a meeting to explain proceedings of expulsion.

2. Students being expelled will receive written notification from the dean of students indicating the sanction of expulsion and the process for appeal.

3. The sanction of expulsion may be appealed by the accused student to the provost within seven (7) school days of the decision. Such appeals shall be in writing and shall be delivered to the dean of students or designee.

4. Except as required to explain the basis of new information, an appeal shall be limited to a review of the documents and notes of the department chair or dean of the college and submission of information by the accused student and supporting documents for one or more of the following purposes:

- a. To determine whether the student received fundamental fairness in the investigative and decision-making processes.
- b. To determine whether the facts in the case were sufficient to establish that a violation of the Academic Honor Code occurred in both cases.

c. To consider relevant and material new evidence.

5. Following the appeal, the provost shall advise the accused student in writing of the determination of the appeal, and of the sanctions imposed, if any. A copy of the notification will be retained in the student's academic record and the student's disciplinary record.

Student Pledges

In adopting this Academic Honor Code, students of Lawrence Technological University recognize that academic honesty and integrity are fundamental values of the University community. The quality of a Lawrence Technological University education is dependent upon the community acceptance and enforcement of the Academic Honor Code. Students who enroll at Lawrence Technological University commit to holding themselves and their peers to the highest standard of academic integrity. An individual who becomes aware of a violation of the Academic Honor Code has an obligation to report this violation.

Members of the Lawrence Technological University community pledge to hold themselves and their peers to the highest standards of academic honesty and integrity.

Undergraduate Students – The following pledge is required on all academic work submitted by undergraduate students at Lawrence Technological University: “I have neither given nor received unauthorized aid in completing this work, nor have I presented someone else's work as my own.”

Graduate Students – All graduate students at Lawrence Technological University are required to sign the student pledge when they begin graduate studies: “I pledge that on all academic work that I submit, I will neither give nor receive unauthorized aid, nor will I present another person's work as my own.”

COMPUTING AND NETWORK POLICY

Access to modern information technology is essential to Lawrence Technological University's mission of providing the students, faculty, and staff of the University with educational services of the highest quality. The pursuit and achievement of the Lawrence Technological University mission of education, research, and public service require that the privilege of the use of computing systems and software, internal and external data networks, as well as access to the World Wide Web, be made available to all members of the University community. The preservation of that privilege for the full community requires that each faculty member, staff member, student, and other authorized user comply with institutional and external standards for appropriate use.

To assist and ensure such compliance, Lawrence Technological University establishes the following policy, which supplements all applicable University policies, including sexual harassment, patent and copyright, and student and employee disciplinary policies, as well as applicable federal and state laws.

General Use and Ownership

1. Authorized use of Lawrence Technological University-owned or operated computing and network resources shall be consistent with the mission and values of the University and consistent with this policy.
2. Use of the University network or computing resources is restricted to those having proper authorization to use that particular resource. It is a violation of the law and University policy to assist in, encourage, or conceal from authorities any unauthorized use, or attempt an unauthorized use, of any of the University's computers or network resources.
3. This policy applies to all Lawrence Technological University computing and network resources, University telephones, University-distributed laptop and tablet computers, and external computing and network resources accessed via Lawrence Technological University's computing and network resources.
4. Individuals with personally owned computers, but who rely upon the University network to connect those computers, either through the University on-campus or remote network connection are expected to abide by the policies set forth in this document.
5. The University reserves the right to limit access to its networks and any posted materials when applicable campus or University policies or codes, contractual obligations, or state or federal laws are violated.
6. Personally owned computers which house materials that violate the University's policies and/or are used in a manner inconsistent with University policies are subject to network disconnection without notice.
7. Although the University does not generally monitor or restrict the content of material transported across networks, it reserves the right to access and review all aspects of its computing systems and networks, including individual login sessions and account files, to investigate performance or system problems, search for viruses and other harmful programs, or upon reasonable cause to determine if a user is violating this policy or state or federal laws. The University further reserves the right to inspect non-University-owned computers that are connected to the University's resources upon reasonable cause to determine if a user is violating University policy or state or federal laws.
8. This policy may be supplemented with additional guidelines by campus units that operate their own computers or networks, provided such guidelines are consistent with this policy. In addition, users are responsible for abiding by the acceptable use policies of Lawrence Tech's authorized network and software providers.
9. Lawrence Technological University will comply with requests from law enforcement agencies for access to information contained anywhere within the University's computer system. The University is not responsible for notification to the account holder of such a request.

User Responsibilities

Privacy

No user should access, view, copy, alter, or destroy another's personal electronic files without permission (unless authorized or required to do so by law or regulation). If

another user has failed to close out their session, a new user must close that session and enter their own username and password to use that computer.

Copyright

Written permission from the copyright holder is required to duplicate any copyrighted material, except where consistent with Fair Use. This includes but is not limited to duplication of music, audiotapes, videotapes, photographs, illustrations, computer software, data, and all other information for educational use or any other purpose. Software and databases that reside on the University's computing network are owned by the University or third parties. These works are protected by copyright and other laws, together with licenses and other contractual agreements. Users are required to respect and abide by the terms and conditions of software use and redistribution licenses. Such restrictions may include prohibitions against copying programs or data for use on the University's network or for distribution outside the University, against the resale of data or programs, or against the use of software for non-educational purposes, or for financial gain, and against public disclosure of information about programs (e.g., source code) or data without the owner's authorization.

Harassment, Libel, and Slander

No user may use the University's computers, telephones, or networks for the purpose of libel, slander, or harassment of any other person.

Cheating

Students are not permitted to use software or other learning technologies, such as Instant Messenger or blogging, for the purpose of academic dishonesty in the classroom. Sanctions will be imposed as stated in the Student Code of Conduct.

Modifying Software or Software Installation

A user may not modify the software configuration on any computer provided for general access.

Access to Computing Resources

- *Accounts:* Accounts created by a system administrator for an individual are for the personal use of that individual only.
- *Sharing of Access:* Computer accounts, passwords, telephone authorization codes, and other types of authorization are assigned to individual users and not shared with others. The assigned user is responsible for any use of the account. Sharing of a computer account constitutes an inappropriate use and may lead to termination of that account and any accounts associated with the person making improper use of that account.
- *Permitting Unauthorized Access:* Users may not run or otherwise configure software or hardware to intentionally allow access by unauthorized users. Failure to configure hardware or software in a way that reasonably prevents access by unauthorized users is a violation of acceptable use.

- *Termination of Access:* Upon a student's separation from the University, appropriate security restrictions will be placed on the account to limit access to the University's network and computing resources.

Circumventing Security

Users are prohibited from attempting to circumvent or subvert any system's security measures. Users are prohibited from using any computer program or device to intercept or decode passwords or similar access control information.

Breaching Security

Activities which degrade the performance of a computer system or network, use a system or network for which the user is not authorized, or deprive authorized users of resources or access to computers or networks is prohibited. Breach of security includes, but is not limited to, the following:

- Creating or propagating viruses
- Hacking
- Password grabbing
- Disk scavenging

Abuse of Computer Resources

Abuse of Lawrence Technological University computer resources is prohibited. This abuse includes, but is not limited to, the following:

- *Distributing computer viruses:* Users must not knowingly distribute or launch viruses, worms, Trojan horses, or other rogue programs.
- *Rogue Access Points:* Users are not allowed to install access points without written authorization from Lawrence Tech IT Services.
- *Port Scanning:* Users are prohibited from systematically scanning University computer ports by use of scanner software or any other device.
- *Flooding:* Generating excessive network traffic, including spamming and denial-of-service, is prohibited.
- *Game Playing:* Limited recreational game playing, which is not part of authorized and assigned research or instructional activity, is acceptable, but computing and network services are not to be used for extensive or competitive recreational game playing.
- *Chain Letters:* The propagation of chain letters is considered an unacceptable practice and is prohibited.
- *Unauthorized Servers:* The establishment of a background process that services incoming requests from anonymous users for purposes of gaming, chatting, or browsing the Web is prohibited.
- *Unauthorized Monitoring:* A user may not use computing resources for unauthorized monitoring of electronic communications.
- *Private Commercial Purposes:* The computing resources of Lawrence Technological University shall not be used for personal or private commercial purposes or for financial gain.

The issuance of a password or other means of access is to assure appropriate confidentiality of Lawrence Technological University files and information and does not guarantee privacy for personal or improper use of University equipment or facilities.

Lawrence Technological University attempts to provide reasonable security against intrusion and damage to files stored on the central facilities. Lawrence Technological University also provides some facilities for archiving and retrieving files specified by users and for recovering files after accidental loss of data. However, the University is not responsible for unauthorized access by other users or for loss due to power failure, fire, floods, etc. Lawrence Technological University makes no warranties with respect to Internet services, and it specifically assumes no responsibilities for the content of any advice or information received by a user through the use of Lawrence Technological University's computer network.

Users should be aware that Lawrence Technological University's computer systems and networks may be subject to unauthorized access or tampering. In addition, computer records, including email, are considered "records" which may be accessible to the public under the provisions of federal or state law.

Account Creation and Account Termination

All students, faculty, and staff will have computer access and email accounts created and maintained for their individual use while they are enrolled at or employed by the University.

Upon separation from the University, appropriate security restrictions will be placed on the account to limit access to the University's network and computing resources.

Email Accounts

Email accounts are provided to students, faculty, and staff in support of the University's mission. Email is the University's official means of communication. Failure to read email messages sent from Lawrence Tech to its users does not absolve the user of the responsibility for knowing the content of these messages. It is the user's responsibility to monitor the content of their Lawrence Tech email account.

Email messages are neither personal nor private. While IT Services will not routinely monitor individual email and will take reasonable precautions to protect the privacy of email, program managers and technical staff may access a student's or employee's email:

1. For a legitimate business purpose (e.g., the need to access information when an employee is absent).
2. To diagnose and resolve technical problems involving the system.
3. To investigate possible misuse of email when a reasonable suspicion of abuse exists or in conjunction with an approved investigation.
4. Under the provisions of the USA Patriot Act in order to provide requested information to authorized personnel.

University email and voice communications systems and their content are the property of Lawrence Tech and are subject to its review and control. Email and voice messaging systems may be subject to discovery proceedings in legal actions.

On appropriate administrative approval, IT Services may monitor any official communications, including email and voice communications, if there is a reasonable suspicion of abuse or violation of University policies.

Email messages sent from a Lawrence Tech email account must have the user's name associated with the message. Anonymous email messages may not be sent from University email addresses and are prohibited.

New student computer access and email accounts are created after registration and will be maintained as long as the student is enrolled at the University. The University presently allows current students to keep access to the email system after graduation.

Password Policy

All passwords used to access Lawrence Tech computer and network resources must be kept private. They must not be shared with others.

Passwords must be changed regularly according to a schedule determined by IT Services.

Data Security

The University provides reasonable security against intrusion and damage to files stored on central storage facilities and provides for the archiving of files based upon the operational needs of the University. The University has the right to limit system access if reasonable efforts are not made to protect the Lawrence Tech information systems and network.

All individual users have access to a limited amount of protected storage on University servers. Data files stored on protected central storage facilities are regularly archived and may be restored on request of the user to the most recent version available.

However, the University is not responsible for the loss of users' files or data when stored on desktop PCs, laptops, or any other non-centrally located and/or unprotected storage media. Users should take their own steps to back up and protect important information.

All computer systems accessing the Lawrence Tech network must have up-to-date antivirus software installed and running. IT Services will install University-approved antivirus software on all University-owned systems currently in production and on new systems prior to delivery to the end user.

Encrypted files, documents, and messages may be accessed by the University if suspected of breaching acceptable use guidelines. Under the provisions of the USA Patriot Act, the University is under no obligation to notify any user who may be the subject of an investigation.

The Laptop Program

The University provides laptops to registered undergraduate students, full-time faculty, and teaching adjunct faculty in support of the University's mission. Graduate and doctoral students are charged \$95 per credit hour per semester for a laptop. Availability is not guaranteed to graduate and doctoral students. Laptops are not generally available to University staff.

Before users can be assigned a Lawrence Tech laptop, they must agree to the terms and conditions contained in the Lawrence Tech Laptop Lease Agreement.

The term of the lease agreement is up to one year.

Complete information about the Laptop Program is contained in the Laptop Lease Agreement. A copy of the Student Laptop Lease Agreement is available at ltu.edu/ehelp.

Printed copies of the Laptop Lease Agreement for full-time and adjunct faculty are available at the Help Desk.

Laptops are assigned to individuals only. There are no departmental laptop assignments unless special approval is acquired.

Users picking up a laptop must have fulfilled the requirements for laptop distribution and have a valid Lawrence Tech photo ID. Students and faculty must pick up their laptops in person. A laptop will not be distributed to anyone other than the person to whom it is assigned. Parents, relatives, or friends may not pick up a laptop for a Lawrence Tech student or faculty member.

Users agree to use the Lawrence Tech laptop within its normal capacity, without abuse, and in a manner contemplated by the University.

All laptops come with pre-installed software designed to meet the instructional goals of each college. Users may install any software on their assigned laptops that was legally obtained and licensed. University IT Services is not responsible for support and troubleshooting of personally obtained software installed on University laptops.

The Laptop Program is under continuous review. Laptop Program policies and procedures may change at any time.

Residence Hall Access

As members of the Lawrence Tech community, residents of University Housing must abide by this Computing and Network Policy.

Residence hall access to the campus network is granted to individuals. Each individual is responsible for assuring that his/her personal residence hall room connection is not

misused. Each individual is also responsible for assuring that the residence hall room connection is not misused by guests in the room.

Incident Reporting

Incidents of misuse of University computing resources should be reported to the executive director of Lawrence Tech's Information Technology Service Delivery. Appropriate action will be taken upon completion of any investigation.

Sanctions

Violation of this policy may be subject to immediate suspension of services by IT Services, which may include temporary or permanent reduction of IT privileges, and to the existing Student Code of Conduct or employee disciplinary procedures of Lawrence Technological University. Sanctions may include the loss of network access and computing privileges. Criminal acts involving Lawrence Technological University's computing resources may also subject users to subpoena and prosecution by local, state and/or federal authorities.

STUDENT CODE OF CONDUCT

Lawrence Technological University is an institution that encourages the intellectual and personal growth of its students as scholars and citizens. Linking theory and practice with advanced learning technologies, Lawrence Technological University's mission is to provide superior undergraduate, graduate, and lifelong learning for leadership, professional achievement, and civic excellence. In this pursuit, the University recognizes that the transmission of knowledge, the pursuit of truth, and the development of individuals require the free exchange of ideas, self-expression, and the challenging of beliefs and customs. Academic freedom is essential to the achievement of these purposes.

Honesty, integrity, and caring are essential qualities of an educational institution, and the concern for values and ethics is important to the whole educational experience. The Student Code of Conduct outlines the rights and responsibilities and expected levels of conduct of students in the University community. Fundamental to the achievement of community among the members of the University is the recognition by all such members that each shares a responsibility to observe University regulations. This obligation, which is an extension of the citizen's responsibility to observe the law of the land, is an essential corollary to participation in the academic rights afforded to members of the University.

A student voluntarily joins the Lawrence Technological University community and thereby assumes the obligation of abiding by the standards prescribed in the Student Code of Conduct. As such, students are required to engage in responsible social conduct that reflects credit upon the University community and to model good citizenship in any community. The University, through the Office of the Dean of Students, maintains the exclusive authority to impose sanctions for behaviors that violate the Student Code of Conduct.

All students enrolled at Lawrence Technological University have access to the Student Code of Conduct. Printed copies are available through the Office of the Dean of Students

and the Office of University Housing. The Student Code of Conduct, along with other helpful information, also may be accessed online at www.ltu.edu/student_affairs/student_conduct.asp.

A. Definitions

1. The term “UNIVERSITY” means Lawrence Technological University.
2. The term “STUDENT” includes all persons taking courses at the University either full-time or part-time, pursuing undergraduate, graduate, or professional studies. Persons who withdraw after allegedly violating the Student Code, who are not officially enrolled for a particular term but who have a continuing relationship with the University or who have been notified of their acceptance for admission are considered “students,” as are persons who are living in University residence halls, although not enrolled in this institution. This Student Code does apply at all locations of the University, including education centers in Wayne, Oakland, Macomb, and outlying counties in Michigan, Northern Michigan, and centers in other states and foreign countries.
3. The term “FACULTY MEMBER” means any person hired by the University to conduct classroom or teaching activities or who is otherwise considered by the University to be a member of its faculty.
4. The term “UNIVERSITY OFFICIAL” includes any person employed by the University performing assigned administrative or professional responsibilities.
5. The term “MEMBER OF THE UNIVERSITY COMMUNITY” includes any person who is a student, faculty member, University official, or any other person employed by the University. A person’s status in a particular situation shall be determined by the dean of students.
6. The term “UNIVERSITY PREMISES” includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the University, including adjacent streets and sidewalks.
7. The term “ORGANIZATION” means any number of persons who have complied with the formal requirements for University recognition.
8. The term “STUDENT DISCIPLINE COMMITTEE” means any person or persons authorized by the dean of students to determine whether a student has violated the Student Code and to recommend sanctions that may be imposed when a regulations violation has been committed.
9. The term “STUDENT CONDUCT OFFICER” means a University official authorized on a case-by-case basis by the dean of students to impose sanctions upon any student found to have violated the Student Code. The dean of students may, in certain circumstances, authorize a student conduct officer to serve

simultaneously as a student conduct officer and the sole member or one of the members of the Student Discipline Committee. The dean of students may authorize the same student conduct officer to impose sanctions in all cases.

10. The term “DISCIPLINE APPEALS COMMITTEE” means any person or persons authorized by the dean of students to consider an appeal from a Student Discipline Committee’s determination as to whether a student has violated the Student Code.
11. The term “SHALL” is used in the imperative sense.
12. The term “MAY” is used in the permissive sense.
13. The term “POLICY” means the written regulations of the University as found in, but not limited to, the Student Code, the *Student Handbook*, the *Guidelines for University Living*, the University webpage and computer use policy, and *Undergraduate or Graduate Catalogs*.
14. “LEVEL I” violations of the Student Code are those for which the sanctions may be a warning, disciplinary probation, special restrictions or loss of privileges, fines, restitution, imposed reassignment of course section or housing assignment, or assignments of discretionary sanctions. Level I violations will generally be heard by a student conduct officer.
15. “LEVEL II” violations of the Code are those for which the sanctions may be, in addition to those listed in Level I, suspension from University Housing and/or from the University, or expulsion from University Housing and/or from the University. Level II violations will generally be heard by the Student Discipline Committee.
16. The term “COMPLAINANT” means any person who submits a charge alleging that a student violated this Student Code. When a person believes that she/he has been a victim of another student’s misconduct, the student who believes she/he has been a victim will have the same rights under this Student Code as are provided to the complainant, even if another member of the University community submitted the charge itself.
17. The term “ACCUSED STUDENT” means any student accused of violating this Student Code.

B. Student Code Authority

1. The dean of students shall determine the composition of the Student Discipline Committee and Discipline Appeals Committee and determine which Student Discipline Committee, student conduct officer, and Discipline Appeals Committee shall be authorized to hear each matter.

2. The dean of students is that person designated by the University president to be responsible for the administration of the Student Code. The dean of students shall develop policies for the administration of the student conduct system and procedural rules for the conduct of Student Discipline Committee hearings that are not inconsistent with provisions of the Student Code.
3. Decisions made by the Student Discipline Committee and/or student conduct officer designated by the dean of students shall be final, pending the normal appeal process.
4. The Student Discipline Committee may be designated as arbiter of disputes within the student community in cases that do not involve a violation of the Student Code. All parties must agree to arbitration and to be bound by the decision with no right of appeal.

C. Conduct – Rules and Regulations

Acts of academic dishonesty are regulated by procedures outlined in the Academic Honor Code. Any student found to have committed the following misconduct is subject to the disciplinary sanctions outlined in Section H:

1. Acts of dishonesty, including but not limited to the following: cheating, plagiarism, or other forms of academic dishonesty; furnishing false information to any University official, faculty member, or office; forgery; alteration or misuse of any University document, record, or instrument of identification; helping or attempting to help another student commit an act of dishonesty; tampering with the election of any University-recognized student organization.
2. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other University activities, including its public-service functions on or off campus or other authorized non-University activities, when the act occurs on University premises.
3. Physical abuse, verbal abuse, threats, intimidation, harassment, coercion, stalking, and hate crimes or acts that are racially motivated or due to one's sexual orientation, gender expression, and/or other conduct that threatens or endangers the health or safety of any person.
4. Attempted or actual theft of and/or damage to property of the University or property of a member of the University community or other personal or public property, on or off campus.
5. Hazing, defined as an act that endangers the mental or physical health or safety of a student, or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a group or organization. The express or implied consent of the

victim will not be a defense. Apathy or acquiescence in the presence of hazing are not neutral acts; they are violations of this regulation.

6. Failure to comply with directions of University officials or law enforcement officers acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.
7. Unauthorized possession, duplication, or use of keys to any University premises or unauthorized entry to or use of University premises.
8. Violation of any University policy, rule, or regulation published in hard copy, posted on campus, or available electronically on the University website.
9. Violation of federal, state, or local law on University premises or at University-sponsored or supervised activities.
10. Use, possession, manufacturing, or distribution of marijuana, heroin, narcotics, or other controlled substances, except as expressly permitted by law; use or possession of drug paraphernalia.
11. Use, possession, manufacturing, or distribution of alcoholic beverages, except as expressly permitted by the law and University regulations, or public intoxication. Alcoholic beverages may not, in any circumstances, be used by, possessed by, or distributed to any person under 21 years of age.
12. Possession of firearms, explosives, any object that by its intended or actual use may be used to threaten or harm people or damage or destroy property, or other weapons or dangerous chemicals on University premises.
13. Participation in an on-campus or off-campus demonstration, riot, or activity that disrupts the normal operations of the University and infringes on the rights of other members of the University community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area; intentional obstruction that unreasonably interferes with freedom of movement, either pedestrian or vehicular, on campus.
14. Obstruction of the free flow of pedestrian or vehicular traffic on University premises or at University-sponsored or supervised functions, or violation of any regulations outlined in the Lawrence Tech Parking and Traffic Regulations.
15. Conduct which is disorderly, lewd, or indecent; breach of the peace; or aiding, abetting, or procuring another person to breach the peace on University premises or at functions sponsored, or participated in, by the University or members of the academic community. Disorderly conduct includes but is not limited to: any unauthorized use of electronic or other devices to make an audio or video record of any person while on University premises without his/her knowledge, or without

his/her effective consent when such recording is likely to cause injury or distress. This includes but is not limited to surreptitiously taking pictures of another person in a gym, locker room, or restroom.

16. Theft or other abuse of computer facilities and resources, including but not limited to: unauthorized entry into a file to use, read, change, or delete the contents or for any other purpose; unauthorized transfer of a file; use of another individual's identification and password; use of computing facilities to interfere with the work of another student, faculty member, or University official; use of computing facilities to send obscene or abusive messages; use of computing facilities to interfere with normal operation of the University computing system; use of computing facilities and resources in violation of copyright laws; any violation of the University's Computing and Network Policy.
17. Tampering with any telecommunications services, including but not limited to: telephone, cable television, and/or voice mail; providing unauthorized service to another room, suite, or apartment by any means through unauthorized installation of wiring jacks or extensions.
18. Abuse of the student conduct system, including but not limited to: failure to obey the summons of the Student Discipline Committee, Discipline Appeals Committee, student conduct officer, or University official to appear for a meeting or hearing as part of the student conduct system; falsification, distortion, or misrepresentation of information before a Student Discipline Committee, Discipline Appeals Committee, or student conduct officer; disruption or interference in bad faith with the orderly conduct of a proceeding; attempting to discourage an individual's proper participation in, or use of, the student conduct system; attempting to influence the impartiality of a member of a Student Discipline Committee or Discipline Appeals Committee prior to, and/or during, and/or after a student conduct proceeding; harassment (verbal or physical) and/or intimidation of a member of the Student Discipline Committee or Discipline Appeals Committee prior to, during, and/or after a student conduct proceeding; failure to comply with the sanction(s) imposed under the Student Code; influencing or attempting to influence another person to commit an abuse of the student conduct system.
19. Actions that endanger the student, the University or local community, the academic process, or cause harm to self or others.

D. Jurisdiction of the Lawrence Technological University Student Code

The Lawrence Technological University Student Code shall apply to conduct that occurs on University premises, at University-sponsored activities, and to off-campus conduct that adversely affects the University community and/or the pursuit of its objectives. Each student shall be responsible for his/her conduct from the time of application for admission through the actual awarding of a degree, even though conduct may occur before classes begin or after classes end, as well as during the academic year and during

periods between terms of actual enrollment (and even if their conduct is not discovered until after a degree is awarded). The Student Code shall apply to a student's conduct even if the student withdraws from school while a disciplinary matter is pending. The dean of students shall decide whether the Student Code shall be applied to conduct occurring off campus, on a case-by-case basis, in his/her sole discretion.

E. Violation of Law and University Discipline

1. University disciplinary proceedings may be instituted against a student charged with conduct that potentially violates both the criminal law and this Student Code (that is, if both possible violations result from the same factual situation) without regard to the pendency of civil or criminal litigation in court or criminal arrest and prosecution. Proceedings under this Student Code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off campus at the discretion of the dean of students. Determinations made or sanctions imposed under this Student Code shall not be subject to change because criminal charges arising out of the same facts that gave rise to violation of University rules or regulations were dismissed, reduced, or resolved in favor of or against the criminal law defendant.
2. When a student is charged by federal, state, or local authorities with a violation of law, the University will not request or agree to special consideration for that individual because of his or her status as a student. If the alleged offense is also being processed under the Student Code, the University may advise off-campus authorities of the existence of the Student Code and how such matters are typically handled within the University community. The University will attempt to cooperate with law enforcement or other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators (provided that the conditions do not conflict with campus rules, regulations, or sanctions). Individual students and other members of the University community, acting in their personal capacities, remain free to interact with governmental representatives as they deem appropriate.
3. If a student is charged with an off-campus violation of federal, state, or local laws, but not with any other violation of this Code, disciplinary action may be taken by the University and sanctions imposed for grave misconduct which demonstrates flagrant disregard for the University community. In such cases, no sanction may be imposed unless the student has been found guilty in a court of law or has declined to contest such charges, although not actually admitting guilt (e.g., "no contest" or "nolo contendere").

F. Student Code of Conduct Procedures

All suspected violations of the Code will be reviewed in accordance with the procedures outlined below.

1. **Disciplinary Correspondence**
All disciplinary correspondence will be sent to the student's official mailing address as listed with Enrollment Services/Office of the Registrar. The University reserves the right to use other reasonable means to notify students.
2. **Filing Complaints**
 - a. Any member of the University community may make a complaint and/or referral or offer information concerning such complaint and/or referral to the Office of the dean of students. A complaint or referral made against a student or students alleging violation(s) of the Student Code of Conduct shall be directed to the dean of students for review. Any complaint should be prepared in writing on a University incident report form and should be submitted as soon as possible after the event takes place, preferably within 48 hours.
 - b. While action on a complaint of violating a University rule or regulation is pending, the status of the student shall not be altered except for reasons outlined in Section J.
3. **Presumption of Non-Violation**
Any student charged with a violation under this Code shall be presumed not responsible until it is proven that, more likely than not, the violation of the rule or regulation occurred.
4. **Preliminary Investigation**
When the dean of students or designee receives information that a student has allegedly violated University rules, regulations, or local, state, or federal law, the dean or designee shall investigate the alleged violation and determine whether further action is necessary. After completing a preliminary investigation, the dean or designee may:
 - a. Find no basis for the complaint and dismiss the allegation as unfounded, or
 - b. Contact the student for a discussion and either:
 - (1) Dismiss the allegation.
 - (2) Identify that the alleged violation(s) equate to a Level I infraction and assign the case to a student conduct officer to conduct a student conduct meeting with the student(s).
 - (3) Identify that the alleged violation(s) equate to a Level II infraction and schedule a hearing with the Student Discipline Committee.
5. **Summoning a Student for a Student Conduct Meeting**
A student conduct meeting is a meeting between a student(s) involved in an alleged violation of the Code and a student conduct officer and may include sanctions. In some cases, the meeting may resolve the matter.
 - a. The student conduct officer shall provide the student with:
 - (1) Written notice of the charge(s) and an outline of rights.

- (2) Review of all available information, documents, exhibits, and a list of witnesses that may testify against the student.
- b. Following receipt of the notice of charges, a student:
- (1) May elect not to contest the charges and to accept responsibility for them. If this election is made, the student must sign a waiver of the right to a hearing, and must accept the sanction imposed by the student conduct officer. The decision to waive a hearing and accept the sanction is final and not appealable.
 - (2) May contest the charges and elect to proceed to a hearing. The hearing shall be scheduled not less than five (5) nor more than 15 calendar days from the student conduct meeting.

G. Hearing Process

Hearings provide the forum in which parties to an allegation are afforded the opportunity to present information for review by a Student Discipline Committee presided over by the chair of the Committee and moderated by the dean of students. The dean of students is an ex-officio member of the Committee. A time shall be set for a Student Discipline Committee hearing not less than five (5) nor more than 15 calendar days after the student has been notified. The maximum time limit for scheduling of hearings may be extended at the discretion of the dean of students or designee.

Hearings shall be conducted by the Student Discipline Committee according to the following guidelines, except as provided by article J below:

1. In cases in which the Student Discipline Committee has been authorized by the dean of students to conduct a hearing, the recommendations of the members of the Student Discipline Committee shall be considered in an advisory capacity by the dean of students in determining and imposing sanctions.
2. Composition: The Student Discipline Committee is composed of 15 members. Recommendations for membership on the Student Discipline Committee from the deans of each academic college, the faculty, the administration and staff of the University, and the executive committee of Student Government will be sought by the dean of students on an annual basis, or more frequently as needed. At the discretion of the dean of students, general solicitation of the student body for participation may be made. Based upon these recommendations and/or solicitations, candidates who meet eligibility requirements will be invited to apply and interview for participation on the Student Discipline Committee.
3. Term of service: Students shall serve for one academic year and may continue to serve at the discretion of the provost and the dean of students.
4. Student eligibility: All students, full- or part-time, shall be eligible for recommendation to the Student Discipline Committee provided they have maintained a 2.3 cumulative grade point average, are not currently on disciplinary probation, and have not been suspended from the residence halls or the University.

5. Training: All members of the Student Discipline Committee, upon receiving notice of appointment, shall be given all necessary information about their responsibilities and the means for carrying them out.
6. Five students from the Student Discipline Committee will be chosen by the dean of students to hear a proceeding.
7. Hearings normally shall be conducted in private.
8. The complainant, the accused student, and their advisors, if any, shall be allowed to attend the entire portion of the Student Discipline Committee hearing at which information is received (excluding deliberations). Admission of any other person to the hearing shall be at the discretion of the Student Discipline Committee and/or the dean of students or designee.
9. In the case of Student Discipline Committee hearings involving more than one accused student, the dean of students or designee, at his/her discretion, may permit the Student Discipline Committee hearings concerning each student to be conducted either separately or jointly.
10. The complainant and the accused student have the right to be assisted by any advisor they choose, at their own expense. The advisor may be an attorney. The complainant and/or the accused are responsible for presenting his or her own information and, therefore, advisors are not permitted to speak or to participate directly in any hearings before the Student Discipline Committee. A student should select as an advisor a person whose schedule allows attendance at the scheduled date and time for the Student Discipline Committee because delays will not normally be allowed due to the scheduling conflicts of an advisor.
11. The complainant, the accused student, and the Student Discipline Committee may arrange for witnesses to present information to the Student Discipline Committee. The University will try to arrange the attendance of possible witnesses who are members of the University community, if reasonably possible, and who are identified by the complainant and/or accused student at least two (2) business days prior to the Student Discipline Committee hearing. Witnesses will provide information to and answer questions from the Student Discipline Committee. Questions may be suggested by the accused student and/or complainant to be answered by each other or by other witnesses, with such questions directed to the chairperson, rather than to the witness directly. This method is used to preserve the educational tone of the hearing and to avoid creation of an adversarial environment. Questions of whether potential information will be received shall be resolved at the discretion of the chairperson of the Student Discipline Committee, in consultation with the dean of students or designee.

12. Pertinent records, exhibits, and written statements (including Student Impact Statements) may be accepted as information for consideration by the Student Discipline Committee, at the discretion of the dean of students.
13. All procedural questions are subject to the final decision of the dean of students.
14. After the portion of the Student Discipline Committee hearing concludes in which all pertinent information has been received, the Student Discipline Committee shall determine by majority vote whether the accused student has violated each section of the Student Code that the student is charged with violating.
15. The Student Discipline Committee's determination shall be made on the basis of whether it is more likely than not that the accused student violated the Student Code.
16. Formal rules of process, procedure, and/or technical rules of evidence, such as are applied in criminal or civil court, are not used in Student Code proceedings.
17. There shall be a single verbatim record, such as a transcription or tape recording, of all hearings before a Student Discipline Committee (not including deliberations). Deliberations shall not be recorded. Transcriptions and/or tapes made during Student Discipline Committee hearings shall be the property of the University. These materials are confidential. They are made available in case of appeal and, upon request, to the Discipline Appeals Committee hearing the appeal.
18. If the accused student, with notice, does not appear before a Student Discipline Committee hearing, the information in support of the charges shall be presented and considered even if the accused student is not present. If the accused student fails to attend the hearing, it shall be deemed that he or she denies all allegations. When appropriate, a sanction will be determined and the student will be notified in writing.
19. The Student Discipline Committee may accommodate concerns for the personal safety, well-being, and/or fears of confrontation of the complainant, accused student, or other witness during the hearing by providing separate facilities, by using a visual screen, and/or by permitting participation by telephone, videophone, closed circuit television, video conferencing, videotape, audio tape, written statement, or other means, where and as determined in the sole judgment of the dean of students to be appropriate.

H. Sanctions

1. The following sanctions may be imposed upon any student found to have violated the Student Code:
 - a. **WARNING** – A notice in writing to the student that the student is violating or has violated institutional regulations.

- b. PROBATION – A written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to violate any institutional regulation(s) during the probationary period.
 - c. LOSS OF PRIVILEGES – Denial of specified privileges for a designated period of time.
 - d. LOSS OF ACADEMIC CREDIT – Failing grade assigned for the course due to academic dishonesty.
 - e. FINES – Previously established and published fines may be imposed.
 - f. RESTITUTION – Compensation for loss, damage, or injury. This may take the form of appropriate service and/or monetary or material replacement.
 - g. DISCRETIONARY SANCTIONS – Work assignments, essays, service to the University, or other related discretionary assignments. (Such assignments must have the approval of the dean of students.)
 - h. RESIDENCE HALL SUSPENSION – Separation of the student from the residence halls for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified.
 - i. RESIDENCE HALL EXPULSION – Permanent separation of the student from the residence halls.
 - j. UNIVERSITY SUSPENSION – Separation of the student from the University for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified.
 - k. UNIVERSITY EXPULSION – Permanent separation of the student from the University.
 - l. REVOCATION OF ADMISSION AND/OR DEGREE – Admission to or a degree awarded from the University may be revoked for fraud, misrepresentation, or other violation of University standards in obtaining the degree, or for other serious violation committed by a student prior to graduation.
 - m. WITHHOLDING DEGREE – The University may withhold awarding a degree otherwise earned until the completion of the process set forth in this Student Code of Conduct, including the completion of all sanctions imposed, if any.
2. More than one of the sanctions listed above may be imposed for any single violation.
 3. Other than University suspension, expulsion, or revocation or withholding of a degree, disciplinary sanctions shall not be made part of the student's disciplinary academic record, but shall become part of the student's disciplinary record. Upon graduation, the student's confidential record may be expunged of disciplinary actions, other than residence hall expulsion, University suspension, University expulsion, or revocation or withholding of a degree, upon application to the dean of students. Cases involving the imposition of sanctions other than residence hall expulsion, University suspension, University expulsion, and revocation or

withholding of a degree shall be expunged from the student's disciplinary record three (3) years after the student completes all requirements for graduation.

4. In situations involving both an accused student(s) (or group or organization) and a student(s) claiming to be the victim of another student's conduct, the records of the process and of the sanctions imposed, if any, shall be considered to be part of the education records of both the accused student(s) and the student(s) claiming to be the victim because the educational career and chances of success in the academic community of each may be impacted.
5. The following sanctions, in addition to those listed above, may be imposed upon groups or student organizations: loss of selected rights and privileges for a specified period of time, and/or deactivation/loss of all privileges, including University recognition, for a specified period of time.
6. In each case in which a student conduct officer determines that a student has violated the Student Code, the recommendation of the student conduct officer shall be considered by the dean of students in determining and imposing sanctions. In cases in which the Student Discipline Committee has been authorized to determine that a student has violated the Student Code, the recommendation of all members of the Student Discipline Committee shall be considered by the dean of students in determining and imposing sanctions. The dean of students is not limited to sanctions recommended by members of the Student Discipline Committee.
7. Following the Student Discipline Committee hearing, the dean of students shall advise the accused student(s), group, and/or organization (and complaining student who believes she/he was the victim of another student's conduct) in writing of the Committee's determination and of the sanction(s) imposed, if any. A copy of the notification will be retained in the student's disciplinary record. Cases involving suspension or expulsion will also be filed in the student's academic record.

I. Appeals

1. A decision reached by the Student Discipline Committee or a sanction imposed may be appealed by the accused student(s) or complainant(s) to the Discipline Appeals Committee within seven (7) school days of the decision. Such appeals shall be in writing and shall be delivered to the dean of students or designee.
2. Composition: The Discipline Appeals Committee is composed of three (3) members: (a) the chair of the Faculty Senate; (b) the assistant provost for enrollment management; (c) the president of Student Government.
3. Except as required to explain the basis of new information, an appeal shall be limited to review of the verbatim records of the Student Discipline Committee hearing and supporting documents for one or more of the following purposes:

- a. To determine whether the Student Discipline Committee hearing was conducted fairly in light of the charges and information presented, and in conformity with prescribed procedures, giving the complaining party a reasonable opportunity to prepare and present evidence that the Student Code was violated, and giving the accused student a reasonable opportunity to prepare and to present a response to those allegations. Deviations from designated procedures will not be a basis for sustaining an appeal unless significant prejudice results.
 - b. To determine whether the decision reached regarding the accused student was based on substantial information; that is, whether the facts in the case that, if believed by the fact finder, were sufficient to establish that a violation of the Student Code occurred.
 - c. To determine whether the sanction(s) imposed was appropriate for the violation of the Student Code that the student was found to have committed.
 - d. To consider new information sufficient to alter a decision or other relevant facts not brought out in the original hearing because such information and/or facts were not known to the person appealing at the time of the original Student Discipline Committee hearing.
4. If the Discipline Appeals Committee upholds an appeal, the matter may be returned to the original Student Discipline Committee for reopening of the Student Discipline Committee hearing to allow reconsideration of the original determination and/or sanction(s).
 - a. In cases involving appeals by students accused of violating the Student Code, the Discipline Appeals Committee may, upon review of the case, reduce but not increase the sanctions imposed by the Student Discipline Committee.
 - b. In cases involving appeals by persons other than the student(s) accused of violating the Student Code, the Discipline Appeals Committee may, upon review of the case, reduce or increase the sanctions imposed by the Student Discipline Committee.
 5. Following the appeal, the dean of students shall advise the accused student(s) in writing of the determination of the Discipline Appeals Committee and of the sanction(s) imposed, if any. A copy of the notification will be retained in the student's disciplinary record. Cases involving University suspension, expulsion, or revocation or withholding of a degree will be filed in the student's academic record.

J. Exceptional Procedures

1. Interim Suspension

In certain circumstances, the dean of students or designee may impose a University or residence hall suspension prior to the hearing before the Student

Discipline Committee. Interim suspension is an action requiring that a student immediately leave the campus and University property.

- a. Interim suspension may be imposed only: a) to ensure the safety and well-being of members of the University community or preservation of University property; b) to ensure the student's own physical or emotional safety and well-being; or c) if the student poses an ongoing threat of disruption of or interference with the normal operations of the University. During the interim suspension, the student shall be denied access to housing facilities and/or the campus (including classes) and/or all other University activities or privileges for which the student might otherwise be eligible, as the dean of students or designee may determine to be appropriate.
- b. Any student who is suspended on an interim basis and returns to the campus and University property during the suspension shall be subject to further disciplinary action and may be treated as a trespasser. Permission to be on campus for a specific purpose (e.g., to take an exam, to consult with the dean of students, or to participate in the disciplinary procedures) may be granted in writing by the dean of students or designee.

2. Suspension from the Housing Facilities

The director of residence life or the dean of students or designee may, when charges are served, suspend an accused student(s) from the housing facilities pending the hearing and determination thereof, whenever the continued presence of such a student would constitute a danger to the student or to the safety of persons or property in the housing facilities, or would pose a threat of disruptive interference with the normal conduct of housing facility activities and functions, or the seriousness of the charges warrants such action. The dean of students or designee shall grant an immediate review (by the end of the next business day after the suspension) on request of any student so suspended with respect to the basis for such a suspension, at which time the suspended student may have the right to present statements tending to show that the basis for the suspension from the housing facilities does not exist. Suspension may apply to all housing facilities, an individual residence hall/apartment, or any portion thereof.

3. Residence Hall/Temporary Reassignment and Restriction from Facilities

The director of residence life or the dean of students or designee may temporarily reassign a resident to another facility and/or restrict a resident from specific campus facilities pending an investigation and/or hearing whenever the continued presence of a resident in a particular campus facility would constitute a danger to the student or to the safety of persons or property in the housing facilities and campus facilities, or the seriousness of the allegations warrants such action. The director of residence life shall grant an immediate review (by the end of the next business day after the temporary reassignment and/or restriction) on request of any resident so reassigned and/or restricted with respect to the basis for such a reassignment and/or restriction.

4. **Temporary Restriction from Personal Contact**
The director of residence life or the dean of students or designee may temporarily restrict a student from any personal, verbal, written, telephone, electronic, and third-party contact with another person pending an investigation and/or hearing whenever the contact could constitute a danger to the person or to the safety of the person or property, or the seriousness of the allegations warrants such action. Any student so restricted may obtain an explanation of the basis for such restriction upon request.
5. **Withdrawal Prior to Student Conduct Proceedings**
The student who withdraws or fails to return to the University while disciplinary action is pending will be ineligible for readmission until the outstanding matter is resolved. The University reserves the right to formally restrict individual(s) from the campus grounds while such action is pending. Any further readmission would require an appeal in writing to the dean of students or designee and approval by the dean of students or designee.

K. Interpretation and Review

1. Any question of interpretation regarding the Student Code shall be referred to the dean of students or his/her designee for final determination.
2. The Student Code will be reviewed every three (3) years under the responsibility of the dean of students with the input of an advisory team.

NON-DISCRIMINATORY POLICY

Lawrence Technological University adheres and conforms to all federal, state, and local civil rights regulations, statutes, and ordinances. No person, student, faculty, or staff member will knowingly be discriminated against relative to the above statutes. Lawrence Technological University is an equal opportunity employer. Direct inquiries regarding non-discriminatory policies to the Division of Student Affairs, 248.204.4100.

SEXUAL HARASSMENT POLICY

It is the policy of Lawrence Technological University to maintain an environment free of sexual harassment for students, faculty, staff, or any other constituency. Sexual harassment is contrary to the standards of the University community. It diminishes individual dignity and impedes equal employment, educational opportunities, and equal access to freedom of academic inquiry. It will not be tolerated at Lawrence Technological University.

What Is Sexual Harassment?

Harassment on the basis of sex is a violation of the Elliott-Larsen Civil Rights Act; Michigan Civil Service Commission Rules; the Office of Federal Contract Compliance regulations; and Title VII of the Civil Rights Act of 1964. According to guidelines issued by the Equal Employment Opportunity Commission in 1980,

“Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature, even between people of the same sex constitutes sexual harassment when:

1. Submission to such conduct or communication is made either explicitly or implicitly a term or condition of an individual’s employment, education, or participation in a University activity; or
2. Submission to, or rejection of, such conduct or communication by an individual is used as the basis for decisions affecting an individual’s employment, education, or participation in a University activity; or
3. Such conduct or communication has the purpose or effect of unreasonably interfering with an individual’s work or educational performance or of creating an intimidating, hostile, or offensive employment or education environment.

“Sexual harassment can also exist when there has been no tangible job detriment (i.e., a significant change in employment status, such as hiring, firing, etc.). Courteous, respectful, pleasant, non-coercive mutual interactions between employees are not considered sexual harassment.

“Personal (i.e., intimate) relationships that occur between persons who are in a supervisory-subordinate work relationship must be reported to the next level of management. In such situations, the department will take appropriate action.” (According to the United States Supreme Court in *Oncale v. Sundowner Offshore Services, Inc.*, No. 96-569, 1998.)

Although these guidelines, based on Title VII, apply specifically to sexual harassment in the workplace, they should be interpreted to apply to students as well under Title IX of the 1972 Education Amendments. As has been pointed out by the National Advisory Council on Women’s Educational Programs (NACWEP), there is a serious problem “of harassment by gatekeepers – those who teach required courses or who have the authority to make critical decisions about a student’s advancement. The extraordinary importance of such positions lends an exceptional degree of significance to every interaction with students, and makes sexual harassment of all types particularly harmful.”

Common Types of Harassment

The NACWEP describes five classifications of harassment commonly reported by students and working women.

1. Generalized sexist remarks or behavior (e.g., “This is a man’s job,” “That’s women’s work,” “Women/men are incompetent at/are better suited to...”). Leering or staring, crude sexual remarks, off-color jokes, suggestive stories, and other related behaviors are also grouped in this category.

“This type of behavior is close to racial harassment in appearance; the sentiments or actions involved are often fiercely anti-male or anti-female and are not intended to lead to sexual activity. They are directed to the (individual) because of gender and can often

affect whole classrooms; the offense may be ‘generalized’ both by its nature and its audience. There can be an inherent sexual content in or underlying such remarks that establishes a tone which in its awkwardness is more damaging than many overt acts.” (Frank J. Till, “Sexual Harassment: A Report on the Sexual Harassment of Students, the National Advisory Council on Women’s Educational Programs, August 1980.” Reprinted from *Sexual Harassment: Definition and Prevention*, State University of New York at Binghamton, 1988. Reprinted with permission.)

2. Inappropriate and offensive sexual advances (e.g., requests for social or sexual encounters, often accompanied by touching).

This type of harassment, while not necessarily threatening, usually makes the recipient uncomfortable. This discomfort may cause the recipient to avoid the perpetrator in the future, thus limiting his or her ability to function properly in the academic environment. Discomfort caused by harassment will almost certainly affect future professional and personal relationships.

3. Solicitation of sexual activity or other sex-related behavior by promise of rewards (e.g., grades, promotions, promises of greater opportunities, etc.).

“This category, in its extreme, literally amounts to an attempt to purchase sexual behavior. In its more blatant forms this type of behavior can be prosecuted as a criminal act ... even ‘banter’ along this vein may cause harm. Students may be mystified and confused by the interaction due to the power of the initiator. This is especially the case where the student propositioned is young or naive, and may fail to fully grasp the significance of the request.” (Till, “Sexual Harassment,” 16.)

4. Coercion of sexual activity by threat of punishment (e.g., refusal to comply with a sexual request or invitation results in a threat of failure, loss of job or promotion, or access to academic referrals).

“What is at stake is often more than one grade or a single recommendation – too frequently it is access to a discipline and so a career is jeopardized.” (Till, “Sexual Harassment,” 17.)

5. Sexual crimes and misdemeanors (e.g., criminal sexual assault [rape, indecent exposure, etc.]) across authority lines (faculty/student or employer/employee) or among colleagues and peers.

“This category refers to acts which, if reported to police authorities, would be considered crimes or misdemeanors.” (Till, “Sexual Harassment,” 22.)

Preventing Sexual Harassment

Although the ultimate burden for prevention of harassment rests with those in supervisory positions, others should be aware that their actions may be construed as harassment.

Following are some suggestions to supervisors, staff, faculty, and students for preventing sexual harassment, regardless of who is the perpetrator and who is the recipient.

- Avoid sexist remarks, off-color stories, or lewd jokes.
- Keep doors open when possible.
- Ask someone to accompany you if you suspect that you may be harassed.
- Make it plain that your intentions are not sexual in nature.
- Make clear, through your behavior, conversation, and actions, that you find sexual harassment offensive and inappropriate.

Combating Sexual Harassment

Employees, students, or faculty who feel they are experiencing this form of discrimination should:

1. *Say No Clearly.* Inform the harasser that his or her attentions are unwanted. If the behavior persists write a memo to the harasser asking him or her to stop; keep a copy.
2. *Document the Harassment.* Record the date, time, and place of each incident. Keep a copy of this record at home.
3. *Get Emotional Support.* Talk to your family and friends.
4. *Document Work Evaluations.* Keep copies of performance evaluations and memos that attest to the quality of your work.
5. *Identify Witnesses/Other Victims.* You are probably not the first person who has been mistreated by this individual. Ask around; you may find others who will support your charge. (Sexual Harassment: What Every Working Woman Needs to Know, cs.utk.edu/~bartley/other/pto5.html).

The least effective way to deal with sexual harassment is to ignore it. Unless the recipient of unwanted sexual attention takes some kind of action (whether formal or informal), the harasser is very likely to continue or even escalate the harassing behavior.

The following suggestions for combating sexual harassment reflect a variety of options, ranging from informal methods to formal procedures.

Confidential Counseling

Students may obtain information about or assistance with sexual harassment issues from the Office of the Dean of Students. Staff, faculty, and administrators should seek help from the Office of Human Resources. University representatives can advise and support complainants and witnesses in a confidential setting. The complainant, alleged harasser, and any witness shall be informed that all records of complaints, statements, interviews, contents of meetings, results of investigations, and any other relevant materials will be kept confidential by the employer, except where disclosure is required by a grievance process or pursuant to a legal action.

Unless otherwise authorized by law, disclosure or publication by any person of the complaint, the facts, or the identity of involved parties or witnesses is prohibited and

subject to disciplinary action. Discussions with representatives of the above-mentioned offices will not be considered official reports to the University and will not, without additional action by the complainant, result in intervention or corrective action. When intervention and discipline result against the alleged harasser, appropriate reference will be made in his or her file to protect the privacy of the complainant and witnesses.

Informal Resolution Process

At the complainant's option, a sexual harassment report or complaint will be taken from staff by the Office of Human Resources and from students by the Office of the Dean of Students or any dean, director, department head, the director of residence life, and/or their designees. Each college or other University organization will designate both men and women to receive complaints.

The person who receives a sexual harassment report of complaint will advise the person who makes the complaint about the informal and formal resolution alternatives available. At the complainant's option, the person receiving the complaint can:

- provide information about sexual harassment;
- help the complainant deal directly with the alleged offender;
- assist with or mediate a resolution of the problem within the complainant's unit; and/or
- help the complainant prepare a written complaint and pursue formal action.

Informal resolution measures should address the particular circumstances. No action will be taken against the alleged offender if the resolution is kept informal. Any discussion with the accused individual should, unless the provost or director of human resources specifically decides otherwise, include the supervisor of accused staff, faculty, or administrator. Any discussion with an accused student will include a member of the Division of Student Affairs and the student's department chair.

Formal Resolution Process

Either subsequent to or instead of following the informal process, a complainant may elect to make a formal charge of sexual harassment. The University will investigate all formal charges of sexual harassment and take appropriate actions pursuant to the results of the findings.

There are several mechanisms available to pursue a formal charge, and their availability depends on the status of the complainant:

1. A student should notify the Office of the Dean of Students. If this is not possible, then the student may contact the Offices of the President or Provost.
2. A member of the staff, faculty, or administration may notify his or her supervisor, a department head or dean, the Offices of the President or Provost, the Office of Human Resources, or the Office of the Dean of Students. A student-employee may also notify any of these.

3. Contract employees should follow the same procedure followed by staff, faculty, and administrators.

Call the Office of Civil Rights at 216.522.4970 to make a sexual harassment complaint. Report all incidents of criminal sexual assault to the Department of Campus Safety at 248.204.3945 or the Southfield Police Department at 248.354.4720.

Counseling Can Help

Sexual harassment undermines the confidence of a student or employee and adversely affects his/her attitude and job or academic performance. All students and employees may talk, confidentially, to trained counselors in the Division of Student Affairs if they believe they have been sexually harassed.

Counselors can be an immediate source of help by:

- encouraging the victim to report the incident(s);
- acting as a liaison between the victim and management;
- helping the victim readjust to the work or school environment; and
- helping the victim regain confidence. (Reprinted from *Where Do You Draw the Line? Sexual Harassment in the Workplace*, American Counseling Association, 4. Reprinted with permission. No further reproduction authorized without written permission of American Counseling Association.)

Counselors can also help management develop a proactive approach to dealing with sexual harassment issues by incorporating discussions on the topic during workshops, seminars, and/or training sessions.

PARTICIPATION IN THE U.S. DRUG PREVENTION PROGRAM

Lawrence Technological University is committed to promoting and maintaining a work and academic environment that is free from illegal use of alcohol and drugs, in accordance with all federal, state, and local laws as well as the Drug Free Schools and Campus Safety Act. Lawrence Technological University is in compliance with all provisions of the U.S. Department of Education Drug Prevention Program, which is a condition of the University's eligibility to receive federal funds or any other form of federal financial assistance.

Applicable policies are provided in sections 16.0 and 16.1 of the *Staff Handbook*, section 2.18 of the *Faculty Handbook*, and in the Policies, Procedures, and Regulations section of the *Student Handbook*. The University specifically prohibits the unlawful possession, use, or distribution of illicit drugs and alcohol by students and employees on its property or as a part of its activities (except at University functions at which alcohol use is approved). Use of alcoholic beverages at any University function requires the approval of the provost or designee.

Employees, students, and campus visitors age 21 years or older, who consume alcohol at University functions or while on University business where such use is approved, are

expected to use alcohol responsibly and not engage in illegal, unprofessional, or disruptive behavior. Violators will be subject to penalties, which may include expulsion or separation from the University. Any employee or student found to be in violation of University policy regarding drugs or alcohol will be subject to disciplinary action up to and including dismissal or expulsion in accordance with applicable disciplinary procedures.

Possession, use, or distribution of illicit drugs, possession or consumption of alcoholic beverages by individuals under 21 years of age, and distribution of alcohol without a license or permit issued by a competent legal authority are violations of local, state, and federal laws. It is the policy of the University to cooperate fully in any prosecution based on violation of these laws.

A variety of serious health risks are associated with the use of illicit drugs and the abuse of alcohol. These include permanent damage to the liver, brain, and other vital organs, heart damage or malfunction, including sudden death, and accidents caused by impaired judgment or abilities. Individuals who may have a drug dependency or alcohol abuse problem are advised to contact the Oakland County Drug and Substance Abuse Center, 248.858.5200.

LIABILITY DISCLAIMER

Lawrence Technological University shall not be liable for any injuries to, or property damage or loss suffered by, any student regardless of cause. This disclaimer of liability shall apply to, but not by way of limitation, the following:

- Any injury or damage incurred on property owned by or under the control of the University, or its subsidiaries, such as classrooms, apartments, or other housing, any other structures, all common areas and grounds, and vehicles;
- Any injury or damage incurred as a participant, spectator or otherwise, in any intramural or intercollegiate or other event or contest, athletic or otherwise, or while in transit thereto or therefrom;
- Any injury or damage suffered while engaged in or attending a classroom or related activity, whether required or elective, and regardless of cause;
- Any injury or damage suffered by reason of theft, fire, damage by the elements, or other casualty;
- Any injury or damage suffered by reason of any act or omission of any University trustee, officer, member of the faculty or staff, employee, contractor, or student.
- By applying for admission or readmission to the University, or by continuing their enrollment with the University for a subsequent semester, students accept the foregoing disclaimer and agree to be bound thereby. Emergency referrals are made to community agencies. Any expenses incurred are the responsibility of the student.

Degrees and Graduation

Degrees and Graduation

DEGREES

Lawrence Technological University offers curricula leading to the following professional or post-professional graduate degrees or certificates. (For information on undergraduate degrees, see the *Undergraduate Catalog*

[\[http://ltu.edu/currentstudents/undergrad_cat.asp?_wds=cs\]](http://ltu.edu/currentstudents/undergrad_cat.asp?_wds=cs)).

College of Architecture and Design

Master of Architecture (also online)

Master of Architecture 3+

Master of Interior Design (also online)

Master of Interior Design 3+

Master of Urban Design

Certificate in Architectural Management (online only)

Certificate in Critical Studies in Architecture

Certificate in Sustainable Architecture

Certificate in Urban Design

College of Arts and Sciences

Master of Educational Technology (also online)

Master of Science Education

Master of Science in Computer Science

Master of Science in Technical and Professional Communication

Certificate in Bioinformatics

Certificate in Instructional Design, Communication, and Presentation

Certificate in Instructional Technology

Certificate in Robotics Education

Certificate in Technical and Professional Communication

Certificate in Workplace Technology (also online)

Certificate in Writing for the Digital Age

College of Engineering

Doctor of Engineering in Manufacturing Systems

Master of Civil Engineering

Master of Construction Engineering Management

Master of Engineering in Manufacturing Systems

Master of Engineering Management (also online)

Master of Science in Architectural Engineering

Master of Science in Automotive Engineering

Master of Science in Civil Engineering (thesis option)
Master of Science in Electrical and Computer Engineering
Master of Science in Mechanical Engineering
Master of Science in Mechatronic Systems Engineering

Certificate in Aeronautical Engineering
Certificate in Electrical Power Systems
Certificate in Energy and Environmental Management
Certificate in Energy Engineering
Certificate in Manufacturing Systems
Certificate in Manufacturing Systems for the Defense Industry
Certificate in Telecommunications Engineering (also online)

College of Management

Doctor of Business Administration
Doctor of Management in Information Technology

Master of Business Administration (also online)
Master of Business Administration/Global Leadership and Management Dual Degree
Master of Business Administration International
Master of Science in Information Systems

Certificate in Information Assurance Management
Certificate in Nonprofit Management and Leadership (also online)
Certificate in Project Management (also online)

REQUIREMENTS FOR GRADUATION/GRADUATION DEADLINE

Petitions to Graduate for each semester have specific due dates:

Expected date of graduation	Petition to Graduate due date
May	April 15
July	April 15 (<i>if attending Commencement</i>) or July 15 (<i>if NOT attending Commencement</i>)
December	November 15

It is the student's responsibility to be aware of these dates and adhere to them. Petition to Graduate forms can be downloaded at www.ltu.edu/graduation. Students may submit their forms to the DTE Energy One-Stop Center in the A. Alfred Taubman Student Services Center or fax them to 248.204.2228.

Processing Petitions to Graduate after their due date, if approved by Enrollment Services/Office of the Registrar, requires that a substantial processing fee be assessed to the student. Further, availability of caps, gowns, and diplomas in time for Commencement cannot be guaranteed.

Students must also pay a graduation fee, which is non-refundable after one academic year. If students do not complete their graduation requirements as planned within one academic year, a new Petition to Graduate and graduation fee must be submitted.

The Master of Architecture is awarded to graduates who maintain a minimum cumulative 3.0 grade point average (GPA) in all degree program classes. Students who maintain at least a 3.5 cumulative GPA in graduate courses will receive the diploma honor “With Distinction.”

Master’s degrees offered through the Colleges of Arts and Sciences, Engineering, and Management are awarded upon completion of all required course work within seven (7) years of matriculation and maintenance of a minimum 3.0 cumulative GPA. Students in the College of Management who maintain at least a 3.85 cumulative GPA in graduate courses will receive the diploma honor “With Distinction.”

The University reserves the right to modify its graduation and other academic requirements as deemed necessary. It will be obligated only by the requirements published in the *Graduate Catalog* and on the University’s website during the academic year of the student’s registration.

COURSE NUMBER AND LEVEL

In the curriculum descriptions that follow, courses are identified by an alphanumeric course number. The alphabetic prefix represents the subject area.

College of Architecture and Design

Architecture	ARC
Digital Arts	ART
Interior Architecture and Interior Design	ARI
Transportation Design	ATD

College of Arts and Sciences

Biology	BIO
Botany	BOT
Chemistry	CHM
Communications	COM
Educational Technology	MET
English as a Second Language	ESL
Geology	GLG
Language and Literature	LLT
Mathematics and Computer Science	MCS
Media Communication	MCO
Natural Science Co-Op	SCO
Physical Science	PSC
Physics	PHY
Psychology	PSY
Radio and Television Broadcasting	RTS

Science Education	SCE
Social Science	SSC
Spanish	SPN

College of Engineering

Biomedical Engineering	BME
Engineering Co-Op	ECO
Civil Engineering	ECE
Electrical Engineering	EEE
Mechanical Engineering	EME
Mechatronic Systems Engineering	MSE
General Engineering	EGE

College of Management

Accounting	ACC
Dissertation	DIS
Doctor of Business Administration	DBA
Finance	FIN
Global	GLO
Global Leadership and Management	GLM
Human Resources Management	HRM
Information Technology	INT
Management	MGT
Management Information Systems	MIS
Marketing	MKT
Operations Management	OPM

The first number following the alpha prefix indicates the academic level of the course:

0	Basic Studies (zero-level courses normally do not provide degree credit)
1	Freshman
2	Sophomore
3	Junior
4	Senior
5, 6, 7	Professional, Post-Professional, and Graduate level
8	Doctoral

The last of the four numbers normally indicates the semester hours of credit assigned to the course. For example, ARC3653 carries three hours of credit.

CATALOG OF ENTRY – LIMITATIONS

Although graduation requirements of the University may change while a student is enrolled, students are normally expected to meet the graduation requirements outlined in the *Catalog* that is in effect at the time they matriculate, as long as the courses are still offered by the University. Substitutions may be made for required courses that may no longer be available. However, if the new graduation requirements may be adapted to a

student's current course of study without increasing his or her credit hour requirements or existing prerequisites, the new requirements shall prevail.

Students interrupting their studies for three calendar years or more must reapply for admission (see Admission section of this *Catalog*, Interruption of Studies). If readmitted, the *Catalog* in effect at the time of readmission is used to determine graduation requirements.

In addition, within the College of Architecture and Design, the requirements outlined in the Addendum to the *Graduate Catalog* for the Master of Architecture degree for the year of entry into the respective program also apply.

College of Architecture and Design

Dean

Glen S. LeRoy, FAIA, FAICP
248.204.2805

Associate Dean

Joseph C. Veryser, AIA
248.204.2818

Assistant Dean and Director of Graduate Studies

Ralph K. Nelson
248.204.2808

Interim Department Chair, Architecture

Dan Faoro, AIA
248.204.2856

Graduate Program Administrative Assistant

Alice McHard
248.204.2834

Professors

William S. Allen
Glen S. LeRoy
Rochelle Martin

Associate Professors

Daniel L. Faoro
Jin Feng
Dale Gyure
Joongsub Kim
Gretchen Maricak
Ralph K. Nelson
Edward Orlowski
Danny Price

Assistant Professors

Anirban Adhya
Constance Bodurow
Philip Plowright
Ashraf Ragheb
James Stevens
Filza Walters

College Professors

Martin Schwartz

Paul Wang

Adjunct Professors

Additional lecturers are assigned to selected courses and sections based on their particular specialties and expertise and are listed in the faculty roster.

Faculty Council

Peter Beaugard

Constance Bodurow

Joongsub Kim

Rochelle Martin

Thomas Nashlen

Advisory Council on Architecture

John Castellana, FAIA

senior vice president, TMP Architecture

Bill Hartman, AIA

director of design, Gensler

Deirdre Jimenez, AIA, ASID

owner, managing principal, Carter Burgess Consultants, Inc.

Barbara A. McGee, AIA

principal, Spectrum Strategies

Arthur F. Smith, FAIA

principal, Harley Ellis Devereaux

Paul Tonti, AIA

vice president, Smith Group

Glen S. Leroy, FAIA, FAICP

dean, College of Architecture and Design, Lawrence Technological University,
executive secretary

Advisory Council on Interior Architecture and Design

John Bodag, ASID

Director of Interior Design, Yamasaki Associates Inc.

Suzanne Buckley, ASID

interior architecture, Harley Ellis Devereaux

Brian Hucker, ARIDO

interior design coordinator, St. Clair College

Harrell Scarcello, ASID

president, Scarcello and Associates

DEGREE PROGRAMS OFFERED

Lawrence Tech's College of Architecture and Design offers these graduate programs:

Master of Architecture Professional Degree

Master of Arts in Environmental Graphics
Master of Interior Design
Master of Urban Design
Certificate in Architectural Management (online)
Certificate in Critical Studies in Architecture
Certificate in Sustainable Architecture
Certificate in Urban Design

The College of Architecture and Design at Lawrence Technological University is among the 30 oldest schools of architecture in the United States. Its mission is to provide a comprehensive architectural education, which synthesizes diverse approaches, disciplines, and human resources. The intent is to develop graduates committed to creative inquiry, critical thinking, progressive architectural design, communication, and professional leadership.

Lawrence Tech's architecture program emphasizes design integration and experimentation through innovative curricula that emphasize the interrelationship of technical, social, environmental, and philosophical ideas. Architecture cannot be created in isolation. Its success depends on supportive harmony with all creative disciplines. Lawrence Tech believes in the architect, educated as a generalist and focused on the creative process, prepared to cope with the complex demands dictated by contemporary society.

There are four concentrations in the Master of Architecture program. An Architectural Design and Practice concentration focuses on architectural design and the theories and practices that contribute to the profession of architecture. The concentration in Critical Studies in Architecture supports architectural research as a basis for investigation. The Urban Design concentration involves community design and is offered in the Detroit Studio, where students network with representatives from government, the design professions, and the business community. The Detroit Studio offers an enriched educational experience through an urban laboratory for design and research projects. A concentration in Sustainable Architecture allows interdisciplinary studies related to the design of sustainable environments.

The curricula of the College of Architecture and Design are structured in five undergraduate programs and two professional degree programs and four certificate programs. Students are cautioned that course selection approval at the time of registration is based on stated prerequisite requirements and the student's ability to maintain adequate academic progress in collateral courses as indicated in the respective curriculum outlines. For firsthand experience, great emphasis is placed on field trips, which may be a part of any course offered by the college.

Transfer students are encouraged to enter any of the degree programs in which they have the interest and qualification. When a complete or accurate description of previous course work is lacking, a transfer student may be asked to present a portfolio of work, complete specific studio problems, or enroll in certain courses to ensure correct placement within

the program. Lawrence Tech's College of Architecture and Design is a member of the Association of Collegiate Schools of Architecture and the National Institute for Architectural Education. The Bachelor of Interior Architecture program is accredited by the Council for Interior Design Accreditation (CIDA) and the BFA in Imaging and BFA in Graphic Design by the National Association of Schools of Art and Design (NASAD).

NATIONAL ARCHITECTURAL ACCREDITING BOARD ACCREDITATION

The Master of Architecture degree is accredited by the National Architectural Accrediting Board (NAAB).

As stated by the NAAB, "In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established educational standards.

"Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree."

Lawrence Tech's Master of Architecture professional degree program requires the applicant to hold an undergraduate degree in architecture from a recognized college or university school of architecture.

PROGRAM DECLARATION

Students must declare which program they will pursue at the time the graduate application is submitted. The *Graduate Catalog* and addenda in effect at the time of acceptance into the particular program are the governing determinants of the degree requirements that apply.

MASTER OF ARCHITECTURE PROFESSIONAL DEGREE (MArch)

For students desiring a career of leadership in society and practice, the University offers the Master of Architecture professional degree program. It offers the academic credentials for professional licensing and admission to the field of architecture. This program of academic course work combines graduate studies in architectural design and theory, including master classes and selective research, with professional practice, advanced liberal education courses, and interdisciplinary studies. A wide range of architecture elective courses is offered. Outstanding faculty, including visiting professors in master class studios, offer a rich variety of courses.

The MArch student has the opportunity to specialize in an area of professional interest by selecting an area of concentration. Additional courses are not required when pursuing a concentration. Students must select one of the following areas of concentration:

- Architectural Design and Practice
- Critical Studies in Architecture
- Sustainable Architecture
- Urban Design

The MArch professional degree program is open to highly qualified graduates of college/university architectural programs who meet all admission requirements. Students who work while earning the MArch degree should plan to distribute course work over two to four years.

MArch ADMISSIONS REQUIREMENTS

Students are eligible to apply for this program if they are graduates of a recognized baccalaureate degree program in architecture. Admission to the MArch professional degree program as a regular student requires:

1. Submission of the Application for Graduate Admission;
2. Official transcripts of all completed college work;
3. Minimum undergraduate GPA of 3.0;
4. A resume, including experience and extracurricular activities;
5. Three letters of recommendation, including one from a practicing architect and one from a faculty member employed by a college or university school of architecture who is familiar with the candidate's professional promise;
6. A portfolio for review by the Graduate Admissions Committee of the College of Architecture and Design to further demonstrate the candidate's potential for success.

MArch TRANSFER PROCEDURE

Students who are currently enrolled in an accredited graduate program in architecture may be accepted into the MArch professional degree program on the basis that they meet all admissions requirements. Credit for courses taken in an accredited graduate program will be reviewed for their acceptability as substitutes for required courses in the Lawrence Tech MArch professional degree program. A request that such courses be considered must be made at the time of the student's application.

MArch APPLICATION PROCEDURES

The deadline for *regular* admission to the MArch professional degree program is February 1. Applications for the admissions categories are accepted by the Office of Admissions throughout the year. Formal acceptance into the program normally occurs during early March or July.

The deadline for *early* admission to the MArch professional degree program is November 1. Applicants accepted as part of this early admissions process may begin their graduate studies in January but may take only graduate elective courses.

The following guidelines have been established by the Graduate Admissions Committee of the College of Architecture and Design to facilitate and expedite the admissions process:

Regular Admission – All candidates to the MArch professional degree program require the approval of the Graduate Admissions Committee. Regular admission is available only to students who meet all College of Architecture and Design program requirements.

Conditional Admission – There are two categories of conditional admission:

1. Conditional admission may be granted to qualified Lawrence Tech undergraduate Bachelor of Science in Architecture students who have applied to the MArch professional degree program, who have a 3.0 GPA or higher, and who will complete all undergraduate degree requirements no later than the summer semester prior to the academic year in which they would enter the graduate program. Students wishing to enroll in graduate electives during their senior year must consult with the administrator of the graduate programs no later than four weeks prior to the scheduled normal registration period. All graduate courses taken under conditional admission must be electives and require approval of the administrator of the graduate programs. Courses are limited to no more than six (6) credits. Professional degree or graduate elective courses taken to meet undergraduate degree requirements may not be used to meet professional degree or graduate program requirements.
2. Conditional admission may also be granted to students with a GPA lower than 3.0 but higher than 2.75 or applicants whose portfolio and references are not of the highest standard. The conditions of the admission will be clearly stated to the applicant at the time of notification of conditional acceptance into the program. Conditional admission requires the approval of the dean of the College of Architecture and Design, and is established as a result of the formal review process.

MArch CONCENTRATIONS

All students pursuing a MArch professional degree must select one of the following concentrations: Architectural Design and Practice; Critical Studies in Architecture; Sustainable Architecture; or Urban Design. All four concentrations include seven core courses (18 credits):

- ARC 6013 Master Class
- ARC 5623 Current Issues in Architecture
- ARC 5012 Research Methods
- ARC 5643 Design Theory
- ARC 5913 Professional Practice 1
- ARC 5422 Environmental Issues
- ARC 5922 Professional Practice 2

Architectural Design and Practice Concentration

The Architectural Design and Practice concentration is intended for students who desire a focused study of architectural design and the theories and practices that are integral to the profession of architecture. Through the required Master Class and either a design studio sequence or a thesis option, students will refine design skills, while incorporating theoretical perspectives. Other required and elective courses allow students to gain broader knowledge and skills associated with contemporary architectural practice.

Students who elect the studio-based option will focus on an architectural design project under the guidance of a faculty advisor, with advice, criticism, and evaluation by a team of reviewers comprising practitioners and faculty.

Students who elect the research-based option will be required to form a thesis committee chaired by a full-time member of the graduate faculty. Two other committee members must be selected with the approval of the thesis chair. At least one of these members must be on the full-time or adjunct faculty at Lawrence Tech. The third member may come from the profession. The composition of all thesis committees must be approved by the assistant dean of graduate studies and the dean.

Students in this concentration may also enroll concurrently in the 15-credit-hour Architectural Management certificate program (see description later in this section).

Critical Studies in Architecture Concentration

The Critical Studies in Architecture concentration supports the investigation and pursuit of architectural research in critical practice. The program is focused on theoretical models of architectural thought and their application to built space. The program includes both conventional academic research and architectural research. Academic research relies on referencing primary and secondary texts or statistically based studies. Architectural research operates within the discourse of architecture, addressing issues and ideas intrinsic to the discipline. This approach is grounded in a theoretical position and involves experimentation, testing, and risk within the discourse of architecture.

A two-course thesis is required. Students will be required to form a thesis committee chaired by a full-time member of the graduate faculty. Two other committee members must be selected with the approval of the thesis chair. At least one of these members must be on the full-time or adjunct faculty at Lawrence Tech. The third member may come from the profession. The composition of all thesis committees must be approved by the assistant dean of graduate studies and the dean.

Students in this concentration may also enroll concurrently in the 14-credit-hour, post-professional Critical Studies in Architecture certificate program (see description later in this section).

Sustainable Architecture Concentration

The purpose of the concentration in Sustainable Architecture is to develop a rigorous professional knowledge base which recognizes the value of interdisciplinary studies

related to the design of sustainable environments. The focus is on advanced applications of ecological literacy stressing the importance of renewable resources, natural systems, and alternative energy in environmentally responsive design practice.

Students may elect a studio-based option that occurs in a traditional design studio setting focusing on a sustainable design project. An additional studio is required which focuses upon the social responsibility of the architect. Students who elect the research-based option must form a thesis committee chaired by a full-time member of the graduate faculty. Two other committee members must be selected with the approval of the thesis chair. At least one of these members must be on the full-time or adjunct faculty at Lawrence Tech. The third member may come from the profession. The composition of all thesis committees must be approved by the assistant dean of graduate studies and the dean.

Students in this concentration may also enroll concurrently in the 12-credit-hour, post-professional Sustainable Architecture Certificate program (see description later in this section).

Urban Design Concentration

The Urban Design concentration is intended for students who desire a focused study of organization, the use of buildings and land, and the design of the spaces between buildings. The concentration offers two tracks, a studio sequence or a thesis. Under the first option, students take two Urban Studio courses that focus on planning and design at the city level as well as at that of the district, block, or street. The second option is a two-course thesis that involves applied research on an urban topic. Students electing this option will be required to form a thesis committee chaired by a full-time member of the graduate faculty. Two other committee members must be selected with the approval of the thesis chair. At least one of these members must be on the full-time or adjunct faculty at Lawrence Tech. The third member may come from the profession. The composition of all thesis committees must be approved by the assistant dean of graduate studies and the dean.

Students in this concentration may also enroll concurrently in the 12-credit-hour Urban Design certificate program (see description later in this section).

MARCH CURRICULUM: Architectural Design and Practice Concentration

TOTAL SEMESTER CREDIT HOURS: 36 (in addition to an acceptable undergraduate degree in architecture)

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 6103	Master Class (m)	3
ARC 5623	Current Issues in Architecture (m)	3
ARC 5012	Research Methods (m)	2

FALL SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5422	Envir Issues (m)	2
ARC 5814 or	Advanced Design Studio 1 or	4
ARC 6514	Thesis 1 (m)	
ARC 5913	Prof Pract 1 (m)	3
ARC 5643	Design Theory (m)	3

SPRING SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5824 or	Advanced Design Studio 2 or	4
ARC 6524	Thesis 2 (m)	
ARC 5922	Prof Pract 2 (m)	2
ARC 5942	Project Management	2
ARC 5xxx	Arch Design & Practice Elective	2

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 6832 or	Arch Des and Prac Studio Doc or	2
ARC 6112	Thesis Praxis (m)	
ARC 5xxx	Arch Des and Prac Elective	2
Non Arch Elective	Non Architecture Elective	2

Note: Core courses (m) available only to fully matriculated MArch students.

Approved Architectural Design and Practice Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5722	Real Estate Law	2
ARC 5732	Real Estate Practice	2
ARC 5952	Management of Construction	2
ARC 5962	Law for Architects	2
ARC 5992	Cost Management in the Built Environment	2
ARC 6853	Research in Practice Management (required if research thesis)	3
ARC 6912	Practice Management	2
ARC 6881	Independent Study (as approved)	1
COM 6103	Managerial Communication	3
HRM 6023	Human Resource Management	3
MGT 5032	Legal Environment	2
MGT 6013	Leadership Management	3
MGT 6043	Law, Ethics, and Business in Society	3
OPM 6153	Entrepreneurship and Venture Management	3
OPM 6013	Operations Management	3
MIS 6013	Management Information Systems	3
EME 6403	Quality Control	3
EME 7613	Technology Management	3

Note: Alternative courses may be substituted in consultation with advisor.

MARCH CURRICULUM: Critical Studies in Architecture Concentration

TOTAL SEMESTER CREDIT HOURS: 36 (in addition to an acceptable undergraduate degree in architecture)

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 6103	Master Class (m)	3
ARC 5623	Current Issues in Architecture (m)	3
ARC 5012	Research Methods (m)	2

FALL SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 5643	Design Theory (m)	3
ARC 6514	Thesis 1 (m)	4
ARC 5913	Prof Pract 1 (m)	3
ARC 5422	Environmental Issues (m)	2

SPRING SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 6524	Thesis 2 (m)	4
ARC 5922	Prof Pract 2 (m)	2
ARC 5632	Architectural Theory	2
ARC 5xxx	Architectural CSA Elective	2

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 6112	Thesis Praxis (m)	2
ARC 5xxx	Architectural CSA Elective	2
Non Arch Elective	Non-Architecture Elective	2

Note: Core courses (m) available only to fully matriculated Master of Architecture students.

Critical Studies in Architecture Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 5632	Architectural Theory	2
ARC 5642	Advanced Study in Architectural History	2
ARC 5782	Urban Theory	2
ARC 5652	Applied Criticism	2
ARC 5662	Architectural Theory and Practice	2
ARC 5612	Form and Meaning	2
ARC 6632	Advanced Study in Architectural Theory	2

MARCH CURRICULUM: Sustainable Architecture Concentration

TOTAL SEMESTER CREDIT HOURS: 36 (in addition to an acceptable undergraduate degree in architecture)

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 6103	Master Class (m)	3
ARC 5623	Current Issues in Architecture (m)	3
ARC 5012	Research Methods (m)	2

FALL SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5643	Design Theory (m)	3
ARC 5594 or	Sustainable Architecture Studio (m) or	4
ARC 6514	Thesis 1 (m)	
ARC 5913	Prof Pract 1 (m)	3
ARC 5422	Environmental Issues (m)	2

SPRING SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5xx4 or	Studio or	4
ARC 6524	Thesis 2 (m)	
ARC 5922	Prof Pract 2 (m)	2
Non Arch Elective*	Approved Non-Architecture Elective*	2
ARC 5xxx**	Sustainability Elective**	2

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 6532 or	Comprehensive Sustainability Exam 2 or	2
ARC 6112	Thesis Praxis	
ARC 5xxx	Sustainability Elective	2
ARC 5992 or	Cost Management in Built Environment or	2
ARC 5952	Management for Construction	

Note: Core courses (m) available only to fully matriculated Master of Architecture students.

***Approved Non-Architecture Electives**

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
LLT 8012	Literature of the Built Environment	2
SSC 8012	Social Responsibility and Community Action	2

****Sustainable Architecture Electives**

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5832	Historic Preservation	2
ARC 6833	Research Preservation Existing Structures	3
ARC 5592	Sustainable Architecture and Building Systems	2

ARC 5582	LEED Standards and Evaluation	2
ARC 5432	Energy Management	2
ARC 6002	High Performance Building Evaluation	2

MARCh CURRICULUM: Urban Design Concentration

TOTAL SEMESTER CREDIT HOURS: 36 (in addition to an acceptable undergraduate degree in architecture)

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 6103	Master Class (m)	3
ARC 5623	Current Issues in Architecture (m)	3
ARC 5012	Research Methods (m)	2

FALL SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5643	Design Theory (m)	3
ARC 5714 or	Urban Studio I (m) or	4
ARC 6514	Thesis 1 (m)	
ARC 5913	Prof Pract 1 (m)	3
ARC 5422	Environmental Issues (m)	2

SPRING SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5724 or	Urban Studio 2 (m) or	4
ARC 6524	Thesis 2 (m)	
ARC 5922	Prof Pract 2 (m)	2
ARC 5782	Urban Theory	2
Non Arch Elective	Non Architecture Elective	2

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 6732 or	Comprehensive Urban Exam or	2
ARC 6112	Thesis Praxis	
ARC 5xxx	Arch Electives	4

Note: Core courses (m) available only to fully matriculated MARCh students.

Urban Design Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5742	Urban Design Methods	2
ARC 5752	Quantitative Methods in Urban Design	2
ARC 5762	Urban Design Policy and Implementation	2
ARC 5772	Case Studies in Urban Design	2
ARC 6792	Urban Design Practicum	2

MASTER OF ARCHITECTURE 3+ CURRICULUM

TOTAL SEMESTER CREDIT HOURS: 89

The Master of Architecture 3+ degree program is for students who have a baccalaureate degree in a field other than architecture but would like to pursue a Master of Architecture degree.

Students must have math and science credit equivalent to:

MCS 1214 Math Analysis 1

PHY 2213 College Physics 1 plus PHY 2221 College Physics 1 Lab

PHY 2223 College Physics 2 plus PHY 2231 College Physics 2 Lab

Preliminary Courses (may be taken prior to entering the program)

ART 1115	Design Elements and Principles	5 credits (2-D and 3-D design)
ART 1225	Visualization Techniques	5 credits (draw, draft, render)
ARC 2813	Electronic Methodologies I	3 credits (AutoCAD and Revit)

FIRST YEAR

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 2313	Building Systems 1	3
ARC 5017	Architecture and Foundation Studio*	7
ARC 3613	History of the Designed Environment 1	3
ARC 2514	Structures 1	4
ARC 2323	Building Systems 2	3
ARC 2321	Building Systems and Global Lecture	1
ARC 3523	Structures 2	3
ARC 3623	History of the Designed Environment 2	3
	Graduate Elective	2

TOTAL HOURS 29

*ARC 5017 Foundation Studio includes Urban and Landscape Global Lectures

SECOND YEAR

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5016	Graduate Allied Studio: Architecture	6
ARC 5012	Research Methods	2
ARC 5063	20 th Century Architecture	3
ARC 3413	Environmental Systems 1	3
ARC 4533	Structures 3	3
ARC 5113	Architectural Design 7	3
ARC 5623	Current Issues in Architecture	3
ARC 4423	Environmental Systems 2	3
ARC 5543	Advanced Structures	3

TOTAL HOURS 29

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 6103	Master Class	3

THIRD YEAR

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5643	Design Theory	3
ARC 5913	Professional Practice 1	3
ARC 6514 or	Thesis 1 or	4
ARC 5814	Graduate Design Studio 1	
ARC 5422	Environmental Issues	2
ARC 5922	Professional Practice 2	2
ARC	Concentration Required Course	2
ARC 6524 or	Thesis 2 or	4
ARC 5824	Graduate Design Studio 2	
ARC	Concentration Elective	2
ARC	Architecture Elective	2

TOTAL HOURS 24

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 6112 or	Thesis Praxis or	2
ARC 6832	Studio Documentation on Exam	
ARC	Concentration Elective	2

GRADUATE CERTIFICATES

Each of the curricular concentrations in the Master of Architecture professional degree program has an associated certificate available. Students enrolled in the MArch program may continue their studies at Lawrence Tech and obtain a certificate in one of these four areas. People who hold at least a bachelor's degree may also obtain a graduate certificate in architectural studies.

CERTIFICATE IN ARCHITECTURAL MANAGEMENT

The Certificate in Architectural Management is a 15-credit-hour post-professional program available to students who are concurrently enrolled in the graduate programs in architecture or interior design at Lawrence Tech, as well as practicing design professionals. This program provides a concentrated course of study and a recognized credential for those who aspire to firm and/or project management in the design professions.

Prerequisites or co-requisites for enrollment in the program include:

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5913	Professional Practice 1	3
ARC 5922	Professional Practice 2	2
ARC 5942	Project Management	2

Equivalent courses taken at other institutions or a professional license (NCARB exam) in architecture may be substituted for the prerequisites with the approval of the assistant dean of graduate studies. A student may apply up to six (6) credit hours to this certificate program while concurrently enrolled in the Architectural Design and Practice graduate option at Lawrence Tech. This certificate is available online only.

Certificate in Architectural Management Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
HRM 6023	Human Resource Management	3
HRM 5023	Leading Organizational Change	3
MGT 7123	Topics in Management: Accounting/Finance	3
ARC 5962	Management of Construction	2
ARC 6912	Practice Management	2
ARC	Architectural Design and Practice Elective	2

CERTIFICATE IN CRITICAL STUDIES IN ARCHITECTURE

The 14-credit-hour Certificate in Critical Studies in Architecture is a concentrated program of study beyond the first professional degree (Master of Architecture). The focus of this certificate is to pursue research and investigation in architecture both as a discipline and a practice, with stress on contemporary issues of architectural design.

Certificate in Critical Studies in Architecture Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5632	Architectural Theory	2
ARC 5642	Advanced Study in Architectural History	2
ARC 5782	Urban Theory	2
ARC 5652	Applied Criticism	2
ARC 5662	Architectural Theory and Practice	2
ARC 5612	Form and Meaning	2
ARC 6632	Advanced Study in Architectural Theory	2

CERTIFICATE IN SUSTAINABLE ARCHITECTURE

This 12-credit-hour certificate program focuses on current issues in sustainable architecture. Also stressed are advanced applications of ecological literacy and the importance of renewable resources, natural systems, and alternative energy in environmentally responsive design practice. Up to six (6) credits can be double counted with the core Master of Architecture degree.

Certificate in Sustainable Architecture Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ARC 5422	Environmental Issues	2
ARC 5572	Vital Signs	2
Approved courses	Approved courses in sustainable, alternative energy or ecology-based studies	8

CERTIFICATE IN URBAN DESIGN

The 12-credit-hour Certificate in Urban Design allows students to concentrate their study and research in urban design while they fulfill requirements for the Master of Architecture degree. It is available also to practicing design or planning professionals. The certificate program seeks to provide the fundamental knowledge and critical thinking skills necessary for students to begin work as design professionals and to team with other professionals in designing, regulating, and/or managing the development of large-scale urban and suburban environments. The program provides students a firm grounding in theory, methods, and practice, allowing them to synthesize and apply the knowledge and skills they obtained in their program courses.

Certificate in Urban Design Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 5782	Urban Theory	2
ARC 5742	Urban Design Methods	2
ARC 5752	Quantitative Methods in Urban Design	2
ARC 5762	Urban Design Policy and Implementation	2
ARC 5772	Case Studies in Urban Design	2
ARC 6792	Urban Design Practicum	2

MASTER OF ARTS IN ENVIRONMENTAL GRAPHICS

The 31-credit-hour Master of Arts in Environmental Graphics allows students to study the comprehensive discipline of graphics, typography, and wayfinding within the built environment. Environmental graphics is a design endeavor involving cognitive mapping and spatial relationships. Designers engaged in this discipline are required to have the ability to work on a human, vehicular, interactive, and print media scale. This discipline requires a unique education to prepare designers to sensitively respond to the built environment.

MASTER OF ARTS IN ENVIRONMENTAL GRAPHICS ADMISSIONS REQUIREMENTS

Students are eligible to apply for the 31-credit-hour Master of Arts in Environmental Graphics program if they are graduates of a recognized baccalaureate degree program in architecture, graphic design, industrial design, and/or interior architecture. Admission to the Master of Arts in Environmental Graphics program as a regular student requires:

1. Submission of the Application for Graduate Admission;
2. Official transcripts of all completed college work;
3. Minimum undergraduate GPA of 2.7;
4. A resume, including experience and extracurricular activities;
5. Three letters of recommendation, including one from an interior designer and one from a faculty member employed by a college or university who is familiar with the candidate's professional promise.
6. A portfolio for review by the Graduate Admissions Committee of the College of Architecture and Design to further demonstrate the candidate's potential for success.

MASTER OF ARTS IN ENVIRONMENTAL GRAPHICS TRANSFER PROCEDURE

Transfer students will ideally have an undergraduate or graduate degree in a design-related field.

MASTER OF ARTS IN ENVIRONMENTAL GRAPHICS APPLICATION PROCEDURES

The deadline for *regular* admission to the Master of Arts in Environmental Graphics program is February 1. Applications for other admissions categories are accepted by the Office of Admissions throughout the year. Formal acceptance into the program normally occurs during March.

The following guidelines have been established by the Graduate Admissions Committee of the College of Architecture and Design to facilitate and expedite the admissions process:

Regular Admission – All candidates for admission to the Master of Arts in Environmental Graphics program require the approval of the Graduate Admissions Committee. Regular admission is available only to students who meet all College of Architecture and Design program requirements.

Conditional Admission – There are two categories of conditional admission:

1. Conditional admission may be granted to qualified Lawrence Tech undergraduate students who have applied to the Master of Arts in Environmental Graphics program and who will complete all requirements for the Bachelor of Science in Architecture, Bachelor of Interior Architecture, Bachelor of Fine Arts in Graphic Design, or other undergraduate design degree no later than the summer semester prior to the academic year in which they would enter the graduate program. Students wishing to enroll in graduate electives during their senior year must consult with the assistant dean of graduate studies no later than four weeks prior to the scheduled normal registration period. All graduate courses taken under conditional admission must be electives and require approval of the assistant dean of graduate studies. Courses are limited to no more than six (6) credits. Professional degree or graduate elective courses taken to meet undergraduate degree requirements may not be used to meet professional degree or graduate program requirements.
2. Conditional admission may also be granted to students with a GPA lower than 2.7 but higher than 2.5 or applicants whose portfolio and references are not of the highest standard. The conditions of the admission will be clearly stated to the applicant at the time of notification of conditional acceptance into the program. Conditional admission requires the approval of the dean of the College of Architecture and Design and is established as a result of the formal review process.

**MASTER OF ARTS IN ENVIRONMENTAL GRAPHICS CURRICULUM
TOTAL SEMESTER CREDIT HOURS: 31**

PRECORE TRACK FOR ARCHITECTS

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ART 2813	Electronic Methods for Imaging	3
ART 2523	Graphic Design 1	3
ART 2413	Typography	3
TOTAL HOURS		9

PRECORE TRACK FOR GRAPHIC DESIGNERS

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 2813	Electronic Methods for Arch	3
ARC 5017	Foundation Studio	7
TOTAL HOURS		10

FALL SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ART 5xx4	Environmental Graphics Studio 1	4
ART 5xx3	History of Environmental Graphics	3
ARC 5912	Principles and Practices of Urban Design	2
ART5xx2	Cognitive Mapping and Wayfinding	2
ART/ARC 5000	Elective	2
TOTAL HOURS		13

SPRING SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ART 5xx4	Environmental Graphics Studio 2	4
ART 5xx3	Lighting for Environmental Graphics	3
ART 5xx2	Type and Iconography for Environmental Graphics	2
ART 5xx2	Materials, Fabrication, and Assembly	2
ART/ARC 5000	Elective	2
TOTAL HOURS		13

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ART 5xx3	Environmental Graphics Thesis	3
ART 5xx2	Exhibit Design Graphics	2
TOTAL HOURS		5

Approved Environmental Graphics Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 5722	Real Estate Law	2
ARC 5732	Real Estate Practice	2

ARC 5952	Management of Construction	2
ARC 5962	Law for Architects	2
ARC 5992	Cost Management in the Built Environment	2
ARC 6853	Research in Practice Management (required if research thesis)	3
ARC 6912	Practice Management	2
ARC 6881	Independent Study (as approved)	1
COM 6103	Managerial Communication	3
HRM 6023	Human Resource Management	3
MGT 5032	Legal Environment	2
MGT 6013	Leadership Management	3
MGT 6043	Law, Ethics, and Business in Society	3
OPM 6153	Entrepreneurship and Venture Management	3
OPM 6013	Operations Management	3
MIS 6013	Management Information Systems	3
EME 6403	Quality Control	3
EME 7613	Technology Management	3

Note: Alternative courses may be substituted in consultation with advisor.

MASTER OF INTERIOR DESIGN (MID)

The Master of Interior Design combines theory, professional issues, and current technology to provide a program aimed at people who are interested in expanding or updating their knowledge of the field. The program has two tracks: the 37-credit-hour curriculum for students with undergraduate degrees in interior design or interior architecture and the 3+ track for students who hold at least a bachelor's degree in another discipline and who would like to change careers. This 80-credit-hour curriculum combines the content of the undergraduate professional courses with the graduate courses to result in a Master of Interior Design.

The program has a core in research, theory, issues, and design application and allows for independent exploration of topics. The final course in the program is the Master Class.

MID ADMISSIONS REQUIREMENTS

Students are eligible to apply for the 37-credit-hour Master of Interior Design program if they are graduates of a recognized baccalaureate degree program in interior design.

Admission to the Master of Interior Design program as a regular student requires:

1. Submission of the Application for Graduate Admission;
2. Official transcripts of all completed college work;
3. Minimum undergraduate GPA of 2.7;
4. A resume, including experience and extracurricular activities;
5. Three letters of recommendation, including one from a practicing interior designer and one from a faculty member employed by a college or university who is familiar with the candidate's professional promise.
6. A portfolio for review by the Graduate Admissions Committee of the College of Architecture and Design to further demonstrate the candidate's potential for success.

MID TRANSFER PROCEDURE

Students who are currently enrolled in a graduate program in interior design may be accepted into the Master of Interior Design program on the basis that they meet all admissions requirements. Credit for courses taken in a graduate program will be reviewed for their acceptability as substitutes for required courses in the Lawrence Tech Master of Interior Design program. A request that such courses be considered must be made at the time of application.

Courses taken to meet undergraduate degree requirements may not be used for graduate credit. Normally, a maximum of six (6) credits for non-core, non-design courses will be allowed for transfer credit. A minimum GPA of 3.0 or better must have been achieved. The courses must have been completed within five (5) years of the application for admission. Exceptions to these guidelines require the approval of the assistant dean of graduate studies.

MID APPLICATION PROCEDURES

The deadline for *regular* admission to the Master of Interior Design program is February 1. Applications for other admissions categories are accepted by the Office of Admissions throughout the year. Formal acceptance into the program normally occurs during March.

The following guidelines have been established by the Graduate Admissions Committee of the College of Architecture and Design to facilitate and expedite the admissions process:

Regular Admission – All candidates for admission to the Master of Interior Design program require the approval of the Graduate Admissions Committee. Regular admission is available only to students who meet all College of Architecture and Design program requirements.

Conditional Admission – There are two categories of conditional admission:

1. Conditional admission may be granted to qualified Lawrence Tech undergraduate students who have applied to the Master of Interior Design program and who will complete all requirements for the Bachelor of Interior Architecture degree no later than the summer semester prior to the academic year in which they would enter the graduate program. Students wishing to enroll in graduate electives during their senior year must consult with the assistant dean of graduate studies no later than four weeks prior to the scheduled normal registration period. All graduate courses taken under conditional admission must be electives and require approval of the assistant dean of graduate studies. Courses are limited to no more than six (6) credits. Professional degree or graduate elective courses taken to meet undergraduate degree requirements may not be used to meet professional degree or graduate program requirements.
2. Conditional admission may also be granted to students with a GPA lower than 2.7 but higher than 2.5 or applicants whose portfolio and references are not of the highest standard. The conditions of the admission will be clearly stated to the

applicant at the time of notification of conditional acceptance into the program. Conditional admission requires the approval of the dean of the College of Architecture and Design and is established as a result of the formal review process.

MID CURRICULUM

TOTAL SEMESTER CREDIT HOURS: 37 (in addition to an acceptable undergraduate degree in interior design or interior architecture)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 5012	Research Methods	2
ARI 5422	Environmental Issues	2
ARC 5643	Design Theory	3
ARI 5622	Current Issues in Interior Design	2
ARC 5222	Architectural Graphics	2
ARI 5143	Lighting Design and Research	3
ARC 6103	Master Class	3
ARC 6903	Educational Praxis	3
ARI 6514 or	Interior Design Thesis 1 or	4
ARI 5814	Advanced Interior Design Studio 1	4
ARI 6524 or	Interior Design Thesis 2 or	4
ARI 5824	Advanced Interior Design Studio 2	4
ARI 6112 or	Interior Design Thesis Praxis or	2
ARI 6832	Advanced Interior Design Studio	2
	Documentation	
	Graduate Electives	7

MID 3+ CURRICULUM

TOTAL SEMESTER CREDIT HOURS: 80

The Master of Interior Design 3+ is for students who have a baccalaureate degree in a field other than interior design but would like to pursue a Master of Interior Design degree.

Preliminary Courses (may be taken prior to entering the program)

ART 1115	Design Elements and Principles	5 credits (2-D and 3-D design)
ART 1225	Visualization Techniques	5 credits (draw, draft, render)
ARC 2813	Electronic Methodologies I	3 credits (AutoCAD and Revit)

FIRST YEAR

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 2313	Building Systems 1	3
ARI 5113	Interior Architecture Graduate Studio	3
ARI 3113	Furniture and Millwork	3
ARC 3613	History of the Designed Environment 1	3
ART 2523	Graphic Design 1	3
ARC 2323	Building Systems 2	3
ARI 5123	Interior Architecture Graduate Studio 2	3

ARC 3413	Environmental Systems 1	3
ARC 3623	History of the Design Environment 2	3
ARI 3123	Interior Design Materials, Components & Textile	3
TOTAL HOURS		30

SECOND YEAR

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARI 5234	Graduate Allied Studio: Interiors	4
ARI 4143	Advance Lighting	3
ARI 4223	Interior Design Practice	3
ARC 4113	History of Interiors and Furniture	3
ARI 5083	Environmental Psychology	3
ARI 5124	Interior Architecture Graduate Studio 3	4
ARC 5012	Research Methods	2
ARC 5643	Design Theory	3
TOTAL HOURS		25

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 6103	Master Class	3

THIRD YEAR

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARI 5622	Current Issues in Interior Design	2
ARI 5143	Lighting Design and Research	3
ARC 6514 or	Interior Design Thesis 1 or	4
ARI 5814	Advanced Interior Design Studio 1	
ARC 5422	Environmental Issues	2
ARC 5222	Architectural Graphics	2
ARC 6903	Educational Praxis	3
ARI 6524 or	Interior Design Thesis 2 or	
ARI 5824	Advanced Interior Design Studio 2	4
TOTAL HOURS		20

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARI 6112 or	Interior Design Thesis Praxis or	2
ARI 6832	Adv. Interior Design Studio Documentation	

MASTER OF URBAN DESIGN (mUD)

The Master of Urban Design is a 32-credit-hour program that can be completed in three (3) semesters. The program welcomes students with diverse undergraduate degrees and backgrounds and features a pedagogical and research emphasis that builds upon the

University's commitment to its urban and suburban context. The Master of Urban Design is designed to help students develop a body of knowledge, skills, and experience in urban design with a focus on sustainable urbanism – a balanced and holistic systems approach to design and policy initiatives that addresses the complex environmental, economic, and social forces that affect global city and regional forms.

The Master of Urban Design explores urban growth and change through a discourse that includes sustainability, integrated design, and urban context. This new, comprehensive systems-based approach to delivering leading-edge education in the area of sustainable urbanism sets Lawrence Tech's Master of Urban Design apart from traditional urban design programs. The Master of Urban Design addresses the urgent needs of the discipline, profession, and community for sustainable placemaking. Furthermore, Lawrence Tech's unique regional context allows the program to focus on the duality of the two primary global conditions: shrinking cities and exponential urban growth.

mUD ADMISSIONS REQUIREMENTS

In acknowledgment of the complex nature of city making in the 21st century, the Master of Urban Design is open to prospective students from diverse academic and professional disciplines who have a deep interest in cities and urban and regional development. Applications from mature, talented, intellectually aggressive, and critical individuals holding professional degrees in architecture, urban planning, and/or landscape architecture, as well as individuals holding undergraduate and advanced degrees in community development, anthropology, sociology, social work, law, environmental sciences, political science, economics, or related fields, will be considered.

Two years of professional experience is desirable, but not required. Applicants should be prepared for an intensive academic environment emphasizing both individual and group work in studios, seminars, and lecture classes. Candidates should also be open to discuss themes of sustainability politics, culture, class, race, and gender as they relate to urban design, and to testing assumptions about these issues in light of the history, theory, and practice of urban design.

Admission to the Master of Urban Design program requires:

1. Submission of the Application for Graduate Admission;
2. Official transcripts of all completed college work;
3. Minimum undergraduate GPA of 3.0
4. A resume, including experience and extracurricular activities;
5. Three letters of recommendation, including one from a professional affiliated with urban design; one from a faculty member employed by a college or university the student attended; and one from a personal acquaintance.
6. A statement of 500 words or less about the applicant's interest in cities and regions and the discipline of urban design. The statement should also address what "sustainable urbanism" means to the applicant, who can be specific about his or her past, experiences, interests, or goals.
7. A portfolio for review by the Graduate Admissions Committee of the College of Architecture and Design to further demonstrate the candidate's potential for

success. The portfolio, in any visual and/or written format, should demonstrate the critical and creative aptitude of the applicant and his or her understanding of cities and the experience of working in the context of the urban environment. Material can include copies of work done in an academic, personal, or professional setting, or any work in the visual arts in two-, three- or four-dimensional execution. Sketching, drawing, painting, photography, illustration, printmaking, sculpture, written reports, articles, op-eds, policy papers, documentation, or published and unpublished monographs represent a small example of what is permissible content. Writing about the social, natural, or built environment of cities, in any format or focus, is also acceptable as evidence of creative ability. Some reference to the date and situation of each element should be included.

mUD TRANSFER PROCEDURE

Students who are currently enrolled in a graduate program in urban design may be accepted into the Master of Urban Design program on the basis that they meet all admissions requirements. Credit for courses taken in a graduate program will be reviewed for their acceptability as substitutes for required courses in the Lawrence Tech Master of Urban Design program. A request that such courses be considered must be made at the time of application.

Courses taken to meet undergraduate degree requirements may not be used for graduate credit. Normally, a maximum of six (6) credits for non-core, non-design courses will be allowed for transfer credit. A minimum GPA of 3.0 or better must have been achieved. The courses must have been completed within five (5) years of the application for admission. Exceptions to these guidelines require the approval of the assistant dean of graduate studies.

mUD CURRICULUM

TOTAL SEMESTER CREDIT HOURS: 32

SUMMER SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 5682	History of Urban Form	2
ARC 5743	Current Issues of Urban Design	3
ARC 5012	Research Methods	2
TOTAL HOURS		7

FALL SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 5742	Urban Design Methods	2
ARC 5714 or	Urban Studio 1 or	4
ARC 6514	Thesis 1	4
ARC 5912	Principles and Practices of Urban Design	2
ARC 5422	Environmental Issues	2
ARC 5693	Sustainable Urbanism	3

TOTAL HOURS 13

SPRING SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ARC 5724 or	Urban Studio 2 or	4
ARC 6524	Thesis 2	4
ARC 5772	Case Studies in Urban Design	2
ARC 5782	Urban Theory	2
ARC 5762	Urban Design Policy and Implication	2
ARC 5752	Quantitative Methods in Urban Design	2

TOTAL HOURS 12

College of Arts and Sciences

Dean

Hsiao-Ping Moore
S101, 248.204.3500

Associate Dean

Glen A. Bauer
S101, 248.204.3500

Program Advisors

Master of Educational Technology and Master of Science Education:
Valentina Tobos, S231, 248.204.3617

Master of Science in Computer Science:
Ghassan M. Azar, S116B, 248.204.3659

Master of Science in Technical and Professional Communication:
Corinne Stavish, S227, 248.204.3656

Professors

William C. Arlinghaus
Jerry L. Crist
Walter K. Dean
Thomas A. Lackey, emeritus
Richard E. Marburger, emeritus
Richard E. Michel, emeritus
Daniel W. Mioduszewski, emeritus
Gonzalo Munévar
James S. Rodgers
Anthony F. Sky
Maria J. Vaz

Associate Professors

David E. Bindschadler
Christopher Cartwright
Chan-Jin Chung
Pamela Lowry
William G. Madden
Marilyn V. Rands
Scott D. Schneider
Betty L. Stover
Valentina Tobos
Melinda Phillips

Assistant Professors

Jon J. Brewster
Jeffrey Morrissette

Julie Zwisler-Vollick
Guang-Chong Zhu

College Professors

Ghassan M. Azar
Corinne Stavish
Nicole Villeneuve

Senior Lecturers

LaVetta Appleby
Holly Helterhoff

Adjunct Faculty

Additional lecturers are assigned to selected courses and sections based on their specialties and expertise and are listed in the faculty roster.

Faculty Council

Sonia Henckel, Mathematics and Computer Science
Phil Vogt, Humanities, Social Sciences, and Communication
Scott D. Schneider and Marilyn V. Rands, Natural Sciences

Educational Technology Program Committee

Pamela Lowry
 associate director, Educational Technology Program, Lawrence Tech
Gale McFredries
 certification officer, Marygrove College
Anthony F. Sky
 chair, Department of Natural Sciences, Lawrence Tech
Valentina Tobos
 director, Educational Technology Program, Lawrence Tech
Chenfeng Zhang
 director, Educational Technology Program, Marygrove College

DEGREE PROGRAMS OFFERED

Lawrence Tech's College of Arts and Sciences offers these graduate programs:

Master of Educational Technology
Master of Science Education
Master of Science in Computer Science
Master of Science in Technical and Professional Communication

Certificate in Bioinformatics
Certificate in Instructional Design, Communication, and Presentation
Certificate in Instructional Technology
Certificate in Robotics Education
Certificate in Technical and Professional Communication

Certificate in Workplace Technology
Certificate in Writing for the Digital Age

PROGRAM POLICIES

Grades awarded in graduate courses are limited to A, A–, B+, B, B–, C+, C, and F. At most one passing grade below B– may be counted toward a graduate degree. No more than one required course may be repeated. If a course is repeated, the student’s GPA will reflect both grades earned and is not subject to recomputation. Courses numbered 5000 and above require a minimum grade of B– in each prerequisite course.

MASTER OF EDUCATIONAL TECHNOLOGY (MET)

The Master of Educational Technology, including its Training and Performance Improvement track, seeks to prepare professionals with the information-age skills and knowledge they need to become technologically competent as classroom teachers or school and system-level technology specialists, as well as technology specialists in diverse industries.

The program’s course work is aligned with the Michigan Technology Content and ISTE/NCATE Technology Standards. These standards set the bar not only for the teaching of educational technologies but also for demonstrating how these technologies enhance the processes of teaching and learning as well as personnel productivity.

The Master of Educational Technology program is a collaboration between Lawrence Technological University and Marygrove College, a leader in the preparation of education professionals. Some of the core courses are offered by Marygrove College. A majority of courses are offered in an asynchronous online format.

Candidates may also pursue the Master of Educational Technology degree with a Robotics concentration (see below for requirements).

A special summer-only version of the MET program has been designed and is offered exclusively to qualifying teachers from Taiwan. Contact the MET program director for more details.

MET PROGRAM OBJECTIVES

The Master of Educational Technology is designed as a professional, practice-oriented program of graduate study whose goal is to prepare students for careers in leadership positions in the field of educational technology.

Depending on the emphasis of their studies, students will take courses that focus on providing the skills necessary to:

- Design, produce, and evaluate the various kinds of educational technology techniques required by diverse audiences.
- Use language, visual, analytical, and computer skills to create and enhance the teaching process.

- Apply emerging electronic technologies and other media to the creation of educational media.
- Apply research methodologies to advance knowledge and practice in the field of educational technology.
- Organize instructional teams for problem solving and decision making in the process of adopting educational technology applications that support learning.
- Create, implement, and train others in the design of electronic documents, webpages, and multimedia.
- Obtain the Michigan Department of Education endorsement in educational technology (NP endorsement – 21 credit hours).

MET ADMISSIONS REQUIREMENTS

Admission to the MET program requires:

1. Submission of the Application for Graduate Admission;
2. A baccalaureate degree (minimum GPA of 3.0; if GPA is lower, please contact the program director);
3. Official transcripts of all completed college work;
4. A resume, including experience and extracurricular activities;
5. A list of three references;
6. An admissions interview with the program director;
7. A copy of the applicant’s provisional or professional teaching certificate if NP endorsement is sought.

MET TRANSFER CREDIT

No more than nine (9) graduate semester credit hours will be transferred (pending approval of the program director and grade in the course).

MET CURRICULUM

All students must have a plan of study, arranged in consultation with and approved by the program director.

Candidates for the degree must complete 30 credit hours from the following list of courses, with 21 of these credits from the core curriculum, which includes the capstone course, MET 6303. All degree-seeking students must take MET 6203, Computer Applications for Education. Candidates who would like to obtain a Master of Education Technology degree with a Robotics concentration must take the two robotics-related courses and select a final project for MET 6303 that is related to robotics (for more information, contact the program director).

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6403 (EDT 640)	Technology Tools for Teachers (Marygrove)	3
MET 6883 (EDT 688)	Issues in Educational Technology (Marygrove)	3
MET 5733 (SED 573)	Assistive Technology in Special Education (Marygrove)	3

MET 6203	Computer Applications for Education (Lawrence Tech)	3
MET 6213	Applied Instructional Technology (Lawrence Tech)	3
MET 6223	Multimedia Development 1 (Lawrence Tech)	3

Electives (all Lawrence Tech) Choose three courses from the following list:

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6113	Contemporary Pedagogies in Education	3
MET 6233	Multimedia Development 2	3
MET 6243	Distance Learning	3
MET 699X	Directed Study in Educational Technology	3
MET 5623	Autonomous Robotics for Education 1	3
MET 6623	Autonomous Robotics for Education 2	3

Other courses with program director approval.

Capstone Course

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6303	Capstone Project (Lawrence Tech)	3

Additional educational tracks (degree or non-degree) are available and described below. Please contact the program director at metdir@ltu.edu for more information.

EDUCATIONAL TECHNOLOGY ENDORSEMENT (NP)

The Master of Educational Technology program has been approved by the Michigan Department of Education to offer the NP certification to candidates who already have at least a Michigan provisional teaching certificate and who have completed the following MET courses (21 credit hours):

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6203	Computer Applications for Education (Lawrence Tech)	3
MET 6213	Applied Instructional Technology (Lawrence Tech)	3
MET 6223	Multimedia Development 1 (Lawrence Tech)	3
MET 6243	Distance Learning Through Technology (Lawrence Tech)	3
MET 6403 (EDT 640)	Technology Tools for Teachers (Marygrove)	3
MET 6883 (EDT 688)	Issues in Educational Technology (Marygrove)	3
MET 5733 (SED 573)	Assistive Technology in Special Education (Marygrove – only offered on-ground in the fall semester)	3

Applications for the NP endorsement are processed by Marygrove College certification officers. Contact teachcertificate@ltu.edu for more information.

MET TRAINING AND PERFORMANCE IMPROVEMENT TRACK CURRICULUM

The 30-credit-hour Master of Educational Technology's Training and Performance Improvement track provides self-paced training in educational technology and business for professionals in diverse industries. This track combines real-world business and technology experience with a solid academic foundation in the fundamental principles that drive business success.

Pre-core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6203	Computer Applications in Education	3

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6213	Applied Instructional Technology (online)	3
MET 6223	Multimedia Development 1 (online)	3
MET 6243	Distance Learning through Technology (online)	3
MGT 6013	Leadership and Management (online)	3
HRM 6033	Leading Organizational Change (online)	3
MGT 6153	Project Management (online)	3
MET 6303	Project Seminar or a Management thesis course	3

3 Electives (9 credits) to be chosen from the following list:

Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6233	Multimedia Development 2	3
MET 6113	Contemporary Pedagogies in Education	3
MET 699X	Directed Studies in Educational Technology or Special Topics in Management	1–3
MGT 6223	Project Risk and Quality Management (online)	3
MGT 6053	Perspectives in International Business (online)	3
COM 6103	Foundations of Technical Communications	3

Other courses with program director approval.

CERTIFICATE IN INSTRUCTIONAL TECHNOLOGY

The 12-credit-hour Graduate Certificate in Instructional Technology provides educators and other professionals (i.e., instructional system designers, e-learning designers, multimedia specialists in industry and other non-educational fields) the opportunity to improve their knowledge of instructional technologies and their applications in a practice-oriented program that can prepare students for leadership and mentoring positions in the field of educational technology or instructional media.

This 12-credit-hour certificate does not fulfill the Michigan Department of Education's endorsement (NP) specifications, which require 21 credit hours and a provisional/professional certificate prior to admission to the program.

Upon admission to the Certificate in Instructional Technology program, each candidate will discuss a Plan of Work with the Master of Education Technology program director.

Core

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6203	Computer Applications for Education	3
MET 6213	Applied Instructional Technology	3

2 Electives (6 credits) to be chosen from the following list:

Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6223	Multimedia Development 1	3
MET 6233	Multimedia Development 2	3
MET 6113	Contemporary Pedagogies in Education	3
MET 6243	Distance Learning	3
MET 5263	Autonomous Robotics for Education 1	3
MET 6263	Autonomous Robotics for Education 2	3
MET 699X	Directed Studies in Educational Technology	1–3
MET 6303	Capstone Project	3

CERTIFICATE IN ROBOTICS EDUCATION

The 12-credit-hour Graduate Certificate in Robotics Education provides teachers and other professionals (i.e., after-school program providers and informal science and technology educators) the opportunity to improve their knowledge of autonomous robotics technologies and their application in instruction through a practice-oriented program of study.

This 12-credit-hour certificate does not fulfill the Michigan Department of Education’s endorsement (NP) specifications, which require 21 credit hours and a provisional/professional certificate prior to admission to the program.

Upon admission to the Certificate in Instructional Technology program, each candidate will discuss a Plan of Work with the Master of Education Technology program director.

Core

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 5263	Autonomous Robotics for Education 1	3
MET 6263	Autonomous Robotics for Education 2	3

2 Electives (6 credits) to be chosen from the following list:

Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6203	Computer Applications for Education	3

MET 6213	Applied Instructional Technology	3
MET 6113	Contemporary Pedagogies in Education	3
MET 6223	Multimedia Development 1	3
MET 6233	Multimedia Development 2	3
MET 6243	Distance Learning	3
MET 699X	Directed Studies in Educational Technology	3
MET 6303	Capstone Project	3

CERTIFICATE IN WORKPLACE TECHNOLOGY

The Certificate in Workplace Technology is a 12-hour-credit program that prepares professional employees to improve workplace performance using today’s collaboration and multimedia technologies. Graduates will learn to use multimedia and virtual work technologies effectively to manage distributed and collaborative work. The certificate can be earned separately or along with the master’s degree. The requirements for this graduate certificate are:

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MET 6223	Multimedia Development 1	3
MET 6243	Distance Learning Through Technology	3
MIS 6013	Management Information Systems	3
MIS 7463	Virtual Work Environments	3

OTHER CERTIFICATE OPTIONS

Master of Educational Technology students may choose to earn the Graduate Certificate in Nonprofit Management http://ltu.edu/management/nonprofit_grad_cert.asp or the Leadership or the Graduate Certificate in Project Management http://ltu.edu/management/masters/project_management.asp for a more business-oriented experience (these classes transfer as electives). Program descriptions and details appear later in this catalog.

MASTER OF SCIENCE EDUCATION (MSE)

The Master of Science Education program is designed for:

- Certified teachers who want to obtain an integrated science endorsement (MSE-DI – 36 credits);
- Educators who wish to strengthen competencies in the teaching of K–12 science;
- Educators who have provisional or professional certification and want to obtain additional endorsement or renew their certificates.

Instruction emphasizes students’ active participation and interaction with the instructor and fellow students. Classes teach content while modeling the methods of teaching and learning that are used in K–12 science classrooms. Participants in the Master of Science Education program learn science content and concepts by means of experiences, discussion, and writing – the same processes by which their own students will be expected to learn.

Courses are offered on a teacher-friendly schedule with short semesters and online meetings that limit the number of trips to Lawrence Tech. Summer classes are also available on a 10-week or 6-week schedule.

Some courses may be offered in conjunction with the Detroit Zoological Institute, the Cranbrook Institute of Science, or a Michigan teacher preparation institution.

MSE AND MSE-DI PROGRAM OBJECTIVES

The objectives of the Master of Science Education program are:

- To provide a broad base of scientific knowledge appropriate for K–12 school instruction, as well as techniques and tools that allow successful learning of scientific concepts. Courses combine science content and methods of teaching within an integrated learning experience.
- To provide scientific knowledge and updated teaching techniques (often immediately applicable in the classroom) that will help educators create a classroom environment where science is exciting, challenging, student-centered, and inquiry-driven.
- To provide certified teachers with the graduate educational experience needed to renew certifications or obtain endorsements.

MSE AND MSE-DI ADMISSIONS REQUIREMENTS

Admission to the MSE program requires:

1. Submission of the Application for Graduate Admission;
2. A baccalaureate degree (minimum GPA of 3.0; if GPA is lower, please contact the program director);
3. Official transcripts of all completed college work;
4. A resume, including experience and extracurricular activities;
5. A list of three references;
6. An admissions interview with the program director;
7. A copy of the applicant's provisional or professional teaching certificate if DI endorsement is sought.

MSE AND MSE-DI TRANSFER POLICY

No more than nine (9) graduate semester credit hours will be transferred based on the applicant's GPA and the subject of the course – science, technology, or education. Approval by the program is director required.

MSE CURRICULUM

All students must develop a work plan with the Master of Science Education program director. Candidates for the Master of Science Education degree (non-DI endorsement) must complete 30 credit hours, with 21 of these credits as core courses. All degree-seeking students must take SCE 6103, Introductory Seminar, as their first course and SCE 6303, the capstone project, as their last course.

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
SCE 6103	Introductory Seminar	3
GLG 6143 or	Geosphere	3
GLG 6243	Atmosphere, Weather, and Climate	3
PHY 6323	Astronomy	3
BIO xxxx	Choose from the following list	3
PHY xxxx	Choose from the following list	3
CHM xxxx	Choose from the following list	3

Electives

3 courses	Choose from the following list	9
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Capstone Course

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
SCE 6303	Capstone Project	3

List of Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
BIO 6173	Cells and Organisms	3
BIO 6273	Heredity and Evolution	3
BIO 6353	General Ecology	3
BOT 6163	Botany and Ecology of Plants	3
CHM 6153	Matter, Energy, and Their Changes	3
CHM 6253	Materials and Their Uses	3
GLG 6143	Geosphere	3
GLG 6243	Atmosphere, Weather, and Climate	3
PHY 6123	Motion, Forces, and Energy	3
PHY 6223	Electricity, Magnetism, and Waves	3
SCE 6213	Foundations of Science	3
PHY 6423	Science of Music	3

MSE-DI CURRICULUM

All students must develop a work plan with the Master of Science Education program director. Candidates for the Master of Science Education degree with the DI integrated science endorsement must complete 36 credits hours. All degree-seeking students must take SCE 6103, Introductory Seminar, as their first course and SCE 6303, the capstone project, as their last course.

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
SCE 6103	Introductory Seminar	3
BIO 6173 (offered fall)	Cells and Organisms	3
BIO 6273 (offered spring)	Heredity and Evolution	3

BIO 6353 (offered summer)	General Ecology	3
CHM 6153	Matter, Energy, and Their Changes	3
CHM 6253	Materials and their Uses	3
GLG 6143 (offered fall)	Geosphere	3
GLG 6243 (offered spring or summer)	Atmosphere, Weather, and Climate	3
PHY 6123	Motion, Forces and Energy	3
PHY 6223 (offered spring)	Electricity, Magnetism, and Waves	3
PHY 6323 (offered spring)	Astronomy	3
SCE 6303	Capstone Project (master thesis)	3

MASTER OF SCIENCE IN COMPUTER SCIENCE (MSCS)

The Master of Science in Computer Science differs from traditional master's programs in that it emphasizes applied concepts and reinforces these concepts with laboratory exercises that focus on application. Examples are drawn from business and industry, finance, and scientific research.

The program has been designed so that students can select structured sequences of options to give them advanced training in selected fields of computer science. Eight areas of concentration are available:

- **Bioinformatics** – Combined use of mathematics, statistics, and computer science to analyze biological, biochemical, and biophysical data
- **Computer Graphics** – Theory and application of representing, displaying, and designing virtual objects and environments
- **Computer Security** – Network security and infrastructure, cryptography, intrusion detection and control, user authentication, data integrity, and disaster recovery
- **Data Base Systems** – Advanced training and experience in working with distributed data base systems and client/server models
- **Distributed Systems** – The theoretical underpinnings of distributed computing and practical implementations of LANS, WANS, internets, and intranets
- **Intelligent Systems** – Development of computational systems that exhibit abilities to recognize sensory inputs, adapt by learning, and facilitate appropriate actions (intelligent behavior) in complex and changing environments
- **Programming Languages** – The structure of computer programming languages, how they change, and the theoretical boundaries
- **Software Engineering** – The development methodology of programming and testing in large programming environments

Both the Bioinformatics and Computer Security concentrations require students to take more classes in their area of concentration. Students then apply their knowledge in two capstone project courses.

MSCS PROGRAM OBJECTIVES

The program is designed to develop highly skilled professionals who have a thorough understanding of the theoretical concepts and practical uses of computer science. This applied degree program is intended draw students from three diverse populations:

- Recent college graduates with undergraduate degrees in computer science who wish to gain advanced knowledge and skill in the area of applied computing;
- Employed computer professionals seeking to further their technical competencies;
- College graduates with bachelor's degrees in non-computer areas seeking entry into the computer science field.

The market for those with computer science expertise is booming now and most likely will thrive in the future, giving rise to increased demand for technically competent leaders in a field that is essential for economic growth. Hands-on, applied classes reinforce theoretical concepts, and extensive experience in newly renovated computer science laboratories, as opposed to pencil-and-paper classroom work, is stressed.

MSCS ADMISSIONS REQUIREMENTS

1. Submission of the Application for Graduate Admission;
2. A baccalaureate degree that includes one year of mathematics and one year of science (minimum GPA of 3.0);
3. Official transcripts of all completed college work;
4. Completion of the following pre-core sequence of undergraduate courses* or their equivalencies:

<i>Subject</i>	<i>Cr. Hrs.</i>
Discrete Math	3
Data Structures	4
Computer Architecture and Assembly Programming	3
Operating Systems	3
Theory of Computation	3

*These pre-core courses may require additional prerequisite courses.

MSCS TRANSFER POLICY

No more than six (6) graduate semester credit hours can be transferred into the program from another graduate program.

MSCS CURRICULUM

Students must have a plan of study, arranged in consultation with an advisor and approved by the program director.

Candidates for the degree must successfully complete 30 graduate credit hours, including two concentrations and two capstone project courses. Most concentration selections allow for elective courses as part of a plan of study. Some courses from other departments may be used as electives. All course selections must be approved by the program director.

CONCENTRATIONS

Bioinformatics (includes Database Systems) (24 credits)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5303	Intro to Database Systems	3
MCS 5503	Intelligent Systems	3
MCS 5603	Introduction to Bioinformatics	3
MCS 5613	Genomics	3
MCS 6323	Distributed Database Systems	3
MCS 6613	Protein and DNA Sequence Analysis	3
MCS 6603	Statistical Methods	3
MCS 6623	Data Warehousing – Development, Implementation and Operation	3

Computer Graphics (6 credits)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5203	Intro to Computer Graphics	3
MCS 6223	Adv Topics in Computer Graphics Engineering	3

Computer Security (includes Distributed Computing) (24 credits)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5303	Database Systems	3
MCS xxx3	Intro to Computer Security	3
MCS 5703	Introduction to Distributed Computing	3
MCS 5813	Cryptography	3
MCS 6503	Security Audits	3
MCS 6323	Distributed Database Systems and Security	3
MCS 6723	Advanced Distributed Computing	3
MCS 6813	Network Cryptology	3

Database Systems (6 credits)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5303	Intro to Database Systems	3
MCS 6323	Distributed Database Systems	3

Distributed Systems (6 credits)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5703	Intro to Distributed Computing	3
MCS 6723	Advanced Distributed Computing	3

Intelligent Systems (6 credits)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5503	Intelligent Systems	3
MCS 6513	Adv Topics in Intelligent Systems	3

Programming Languages (6 credits)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5043	Programming Language Implementation	3
MCS 6043	Adv Topics in Programming Languages	3

Software Engineering (6 credits)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5103	Software Engineering	3
MCS 6123	Adv Topics in Software Engineering	3

Capstone Project (6 credits)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 7013	Collaborative Research Project 1	3
MCS 7033	Collaborative Research Project 2	3

Electives

In addition to any of the above courses, the following courses can be taken as electives. Total credit hours in this category will range from 3 to 12 based on the number of bridge courses taken.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5013	Web Server Programming	3
MCS 5023	Java Programming	3
MCS 5033	Object Computing	3
MCS 5053	Computability	3
MCS 5083	Visual Programming	3
MCS 5213	Computational Geometry	3
MCS 5223	Computer Aided Geometric Design	3
MCS 5233	Introduction to Theory of Computation	3
MCS 5253	Operating Systems	3
MCS 5403	Robotics Programming	3
MCS 5523	Virtual Environments and Scientific Visualization	3
MCS 5993	Topics in Computer Science	3
MCS 6063	Foundations of Programming Languages	3
MCS 6143	Current Developments in Software Engineering	3
MCS 6343	Current Developments in Database Systems	3
MCS 6523	Expert Systems	3
MCS 6543	Current Developments in Intelligent Systems	3
MCS 6743	Current Developments in Distributed Computing	3

MCS 7513	Business Intelligence and Data Mining	3
MCS 7993	Advanced Topics in Computer Science	3

CERTIFICATE IN BIOINFORMATICS

The 19-credit-hour Graduate Certificate in Bioinformatics is designed for the professional who already has a computer science degree and is looking to move into a different area of computing. Bioinformatics applies information technology to molecular biology and involves the creation and advancement of databases, algorithms, computational and statistical techniques, and theory to manage and analyze biological data. Bioinformatics encompasses the mapping and analyzing of DNA and protein sequences, comparing DNA and protein sequences, and creating and viewing 3D models of protein structures.

The graduate-level courses taken for the 19-credit-hour Graduate Certificate in Bioinformatics can be applied to the completion of a Master of Science in Computer Science.

Prerequisites

- A bachelor of science degree from an accredited university
- If the student's undergraduate degree is not in computer science, additional course work may be required. In particular, the student must have the equivalent of a university-level first course in database systems and can develop, debug, and test application software involving nontrivial algorithms.
- A university-level chemistry course or CHM 1213 (3 credit hours). Students without an equivalent university-level chemistry course must talk with an advisor (mcschair@ltu.edu or 248.204.3560) before enrolling.

Applicants with a GPA below 3.0 (on a 4.0 scale) in their undergraduate program may be conditionally admitted to the certificate program. Their eligibility to continue in the program will be reviewed after their completion of BIO 1213 Biology 1, BME 2103 Biochemistry for Engineers, and BIO 2021 Life Sciences Lab.

Curriculum

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
BIO 1213	Biology 1	3
BIO 2021 or	Life Sciences Lab (preferred, when available)	1
	or	
BIO 1221	Biology 1 Lab	1
MCS 5993	Topics in Computer Science (Introduction to Applications in Bioinformatics)	3
BME 2103 or	Biochemistry for Engineers or	3
MCS 5303	Introduction to Database	3
MCS 5603	Introduction to Bioinformatics	3
MCS 5613	Genomics	3
MCS 6623	Data Warehousing in Bioinformatics	3

Course substitution may be possible. All substitutions must be accompanied by written approval of the director of computer science programs (mcschair@ltu.edu or 248.204.3560).

MASTER OF SCIENCE IN TECHNICAL AND PROFESSIONAL COMMUNICATION (MSTPC)

The Master of Science in Technical and Professional Communication is designed as a professional, practice- and theory-oriented program of graduate study that prepares students for leadership positions in the field of technical communication. The students who graduate from this program will learn to write the copy, edit it, design and publish the document, and give the presentation about it.

MSTPC PROGRAM OBJECTIVES

Depending on the emphasis of their course of study and professional interests, students take courses that focus on providing the skills necessary to:

- Design, produce, and evaluate the various types of technical and professional communication required by diverse audiences.
- Use verbal, visual, analytical, and computer skills to create and enhance communication in professional environments.
- Apply major rhetorical theories of technical and professional discourse to a variety of communication environments.
- Apply emerging electronic technologies and other media to the creation of various publications and presentations.
- Gain insight into the current research methodologies applicable to the fields of technical and professional communication.
- Supervise publications, information design, and information management functions in organizations.
- Master presentation techniques that are adaptable to multiple audiences.
- Additionally, some students may wish to prepare for doctoral-level work in technical and professional communication to obtain academic, corporate leadership, or research positions.

MSTPC ADMISSIONS REQUIREMENTS

In addition to the policies and procedures described in the Academic Regulations section of this *Catalog*, admission to the Master of Science in Technical and Professional Communication requires:

1. Submission of the Application for Graduate Admission;
2. A baccalaureate degree from an accredited college or university (minimum GPA of 3.0);
3. Official transcripts of all completed college work;
4. A resume, including academic and professional experience;
5. One or more writing samples that demonstrate the applicant's skill in either technical or professional communication. Professional portfolios may also be submitted;
6. Three letters of recommendation, including one from either a professor or a corporate supervisor. The supervisory letter must be written by someone who has

- worked with the applicant in either an academic or corporate environment during the past three years and who is familiar with the applicant's professional promise;
7. An admissions interview with the program director or a designated faculty member.

Applicants with a GPA of less than a 3.0 and those with undergraduate degrees in a field other than technical communication will be admitted on a conditional basis. Students accepted conditionally are evaluated for official graduate student status upon completion of nine (9) semester hours of graduate course work at Lawrence Tech.

MSTPC TRANSFER POLICY

1. No more than six (6) graduate semester credit hours may be transferred, and these must be from an accredited MS, MA, or PhD program in communication.
2. A request for courses to be considered for transfer must be made in writing at the time of application.
3. A minimum grade of 3.0 must have been achieved in the transfer courses.
4. Courses must have been completed within five (5) years of the application for admission. In exceptional circumstances, and with the approval of the program director, the department chair, and the dean, additional credits may be earned based on professional experience that can be applied to a practicum project for COM 7203.

MSTPC REQUIREMENTS FOR CONTINUING MATRICULATION

In order to continue in the program, students must maintain a cumulative GPA of at least 3.0. A student whose GPA falls below 3.0 must have the approval of the program director to continue in the program.

MSTPC CURRICULUM

Candidates for the Master of Science in Technical and Professional Communication degree must complete the equivalent of 30 semester hours, including 18 semester hours of core courses. Students must have a cumulative GPA of 3.0 in all courses applied toward the degree.

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
COM 6103	Foundations of Technical Communication	3
COM 6443	Rhetoric of Technical Communication	3
COM 6453	Research Methods and Applications	3
COM 6473	Advanced Publication Design	3
COM 6553	Advanced Interpersonal Communication	3
COM 7203	Technical Communication Practicum	3

4 Electives (12 credits) to be chosen from the following list:

Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
COM 5963	Web Site Design	3
COM 6123	Professional Presentation Strategies	
COM 6463	Team Problem Solving and Decision Making	3
COM 6483	Managing Organizational Communication	3
COM 6493	Communicating Across Cultures	3
COM 6523	Developing the Corporate Story	3
COM 6533	Writing for Social Media	3
COM 6543	Technical and Professional Editing	3
COM 6563	Advanced Nonverbal Communication	3
COM 6573	Instructional Design	3
COM 6943	Online Communication	3
COM 6963	Multimedia Design and Analysis	3
COM 7103	Special Topics (examples include the following):	3
	Publication and Graphic Design Software Applications	
	Medical Writing	
	Proposal Writing	
	Legal Writing	
	Rhetorical Analysis and Presentation	
	Advanced Business and Professional Communication	

CERTIFICATE IN INSTRUCTIONAL DESIGN, COMMUNICATION, AND PRESENTATION

The 15-credit-hour Graduate Certificate in Instructional Design, Communication, and Presentation provides advanced skills in training for mediated and non-mediated situations, with a focus on land-based, audience-centered communication training needs.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
COM 5963	Web Site Design	3
COM 6123	Professional Presentation Strategies	3
COM 6443	Rhetoric of Technical Communication	3
COM 6553	Advanced Interpersonal Communication	3
COM 6573	Instructional Design	3

CERTIFICATE IN TECHNICAL AND PROFESSIONAL COMMUNICATION

The 15-credit-hour Graduate Certificate in Technical and Professional Communication provides advanced skills in transliteracy across written, oral, and digital communication.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
COM 6103	Foundations of Technical Communication	3
COM 6453	Research Methods and Applications	3

COM 6553	Advanced Interpersonal Communication	3
2 Electives	COM 5000 or 6000 level courses	6

CERTIFICATE IN WRITING FOR THE DIGITAL AGE

The 15-credit-hour Graduate Certificate in Writing for the Digital Age provides advanced skills in writing for social media, the web, and non-print journals.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
COM 5963	Web Site Design	3
COM 6443	Rhetoric of Technical Communication	3
COM 6523	Developing the Corporate Story	3
COM 6533	Writing for Social Media	3
1 Elective	COM 6000 level course	3

The Graduate Certificates in Instructional Design, Communication, and Presentation; Technical and Professional Communication; and Writing for the Digital Age can be applied to the Master of Science in Technical and Professional Communication, which can be earned with an additional 15 credit hours.

College of Engineering

Dean

Nabil Grace
E99, 248.204.2500

Associate Dean

Lewis Frasch
E99, 248.204.2500

Associate Dean of Graduate Studies and Research

Elin Jensen
E20, 248.204.2500

Program Directors

Doctor of Engineering in Manufacturing Systems:

Khalil S. Taraman, E154, 248.204.2565

Master of Architectural Engineering, E25. 248.204.2610

Filza Walters

Master of Civil Engineering, Master of Construction Engineering Management, and
Master of Science in Civil Engineering:

Hiroshan Hettiarachchi, E20, 248.204.2538

Master of Engineering Management:

Daw Alwerfalli, E31, 248.204.2580

Master of Engineering in Manufacturing Systems, and Master of Science in Automotive
Engineering:

Kingman Yee, E33, 248.204.2582

Master of Science in Electrical and Computer Engineering:

Richard Johnston, E215C, 248.204.2534

Master of Science in Industrial Engineering:

Ahad Ali, E37, 248.204.2531

Master of Science in Mechanical Engineering:

Badih Jawad, E40/E34, 248.204.2572/2553

Master of Science in Mechatronic Systems Engineering:

Vladimir Vantsevich, E43, 248.204.2577

Professors

Daw R. Alwerfalli

H. Robert Farrah

Nabil Grace, University Distinguished Professor

Robert D. Hatch, emeritus

Badih Jawad

Richard R. Johnston

Harold Josephs

Richard S. Maslowski, emeritus

Sayed A. Nassar, emeritus

Alan L. Prasuhn, emeritus
Khalil S. Taraman, DIT Chair of Manufacturing Engineering
Vladimir Vantsevich
Lewis N. Walker

Associate Professors

Lisa M. Anneberg
Donald Carpenter
Clarence G. Chambers, emeritus
Michael J. Cloud
Christopher Eamon
Vernon M. Fernandez
Robert Fletcher
Lewis Frasch
Andrew L. Gerhart
Nabil Hachem, emeritus
Stanley F. Harris, emeritus
Elin Jensen
William B. Kolasa
Laura L. Lisiecki
Chris H. Riedel
Kingman E. Yee
Edmund Yuen

Assistant Professors

Ahad Ali
Giscard Kfoury
Hiroshan Hettiarachchi
Luis Mata
Mazin K. Sliety
Anca Stefan
John Tocco
Yawen Li

College Professors

Suraji Bhonsle
Greg Feierfeil
Donald Reimer
Filza Walters

Adjunct Faculty

Additional lecturers are assigned to selected courses and sections based on their particular specialties and expertise and are listed in the faculty roster.

Engineering Faculty Council

Lisa Anneberg, chair

H. Robert Farrah

Andrew L. Gerhart

Hiroshan Hettiarachchi

Christopher Riedel

Civil Engineering Advisory Board

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principal engineer, Somat Engineering

Mark Chaput

MDOT region engineer, MDOT

Jim Cole, BSCE'78

principal engineer, Brinker Team

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chief compliance officer, Skanska USA Inc.

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president and chief operating officer, Walbridge

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vice president, Aristeo Construction

Andrew Rener

director of special projects, Barton Malow

Mike Rogers

deputy director, roads, Wayne

William Rohleder, Jr.

senior vice president/project development, FIGG

David I. Ruby

principal, Ruby & Associates, PC

Ian Schonsheck

CEO, Schonsheck Inc.

Kirk T. Steudle, BSCE'87

director, State of Michigan Department of Transportation

Lami Taweel

president/CEO, TES Consultants, PC

Jodie M. Tedesco

county highway engineer, Livingston County Road Commission

Ben Tiseo, BSAr'78

president, NTH Consultants

D. James Walker, Jr.

executive director, Great Lakes Fabricators & Erectors Assn.

W. Bernard White, BSCE'80

president, White Construction

Electrical and Computer Engineering Industrial Advisory Board

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program manager, Ford Motor Company

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Tom Livernois

principal engineer, Exponent@Failure Analysis Associates@

M. Abul Masrur

RDECOM-TARDEC

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engineering manager, TRW Automotive

Timothy Potochick, BSEE'81

senior specialist network hardware, Chrysler LLC

Sanjay Singh

director of engineering, TRW Steering Division

Benjamin Sweet

principal engineer, Lear Corporation

Anthony B. Will

manager, model-based controls and architecture, General Motors Corporation

Engineering Industrial Advisory Council

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president, Somat Engineering

Dennis Bogden, BSEE'74

director (retired), Powertrain Electronics, General Motors Corporation

Dean DeGalan, BSEE'BS74

president, Automation, Inc.

Jennifer Hitchcock

deputy associate director – mobility, TARDEC, U.S. Army

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executive director (retired), General Motors Corporation

Thomas S. Moore, BSEE'86

general manager, Liberty and technology, Chrysler LLC

John G. Petty, BSME'65

FOX program director, General Dynamics Corporation

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senior vice president, engineering division, DENSO International America

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client delivery executive, Electronic Data Systems

Jason Wang
president, Peter Basso Associates, Inc.

Entrepreneur Program Advisory Board

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CEO, CJPS Enterprises

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CEO, Wallcom Industries

Industrial Engineering Industrial Advisory Board

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process engineer, Crittenton Hospital Medical Center

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Multi-Lingual Industrial Services, Rochester Hills

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Robert R. Inman
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Bert Okma

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productivity engineer, productivity-core, Ford Motor Company

Kevin Poet

engineering manager, Ford Motor Company

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Walter Schwartz

supervisor, technology business strategy office, Ford Motor Company

Matt Szukalowski

industrial engineering transportation manager, United Parcel Service (UPS)

Lisa Wright

director, planning, St. Mary Mercy Hospital

Mechanical Engineering Industrial Advisory Board

Jeffrey Abell

lab group manager, Manufacturing Systems Research Lab, General Motors Research and Development Center, General Motors Corporation

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Jeff Corkins

chief engineer, R&D and new business development, Magna Seating

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Rasheed Khan

quality supervisor, Yazaki North America Inc.

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Kristofor Norman

manager, engine performance development, Ford Motor Company

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industrial base engineering team, TARDEC, U.S. Army

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Christopher Reed
director, Safety and Body Test, Nissan Technical Center North America
Paul D. Rogers
executive director of research, TARDEC, U.S. Army
Tim Roland
senior manager, engineering – climate control, DENSO International America
Benjamin Sweet
principal engineer, hybrid systems and components, Lear Corporation
Christopher Wiegandt
vice president of technology, Federal Mogul
Gregory Woloszczuk
manager of strategic and business development, DTE Energy

Mechatronic Systems Engineering Program Industrial Advisory Board

Abdul-Hafiz Afaneh
engineering director, Robert Bosch Company
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Matthew Busdiecker
principal engineer, Eaton Truck Technology Group
Man-Feng Chang
GM technical fellow and group manager, General Motors Corporation
Michale Gerstenberger
development labs manager, KUKA Robotics Corp.
Richard Gorski
director North American Sales, Aisin World Corp. of America
Mircea Gradu
director, transmission and driveline engineering, Chrysler LLC
Jack Hall
vice president for engineering, Johnson Controls
Davor Hrovat
corporate technical specialist, Ford Motor Company
Jim Hutter
marketing manager, Vector CANtech, Inc
John Janevic
senior director, software delivery and marketing, MSC Software
Kevin Kott
president, dSPACE, Inc.
John Kubler
vice president, corporate development, Kistler Instrument Corporation
Pieter J. Mosterman
senior research scientist, The MathWorks, Inc
Liu Qiao
general manager/chief technologist, Toyota Engineering and Manufacturing

David Thomas

associate director, intelligent systems, RDECOM, U.S. Army,

Jennifer Wahnschaff

quality manager, Siemens VDO Automotive Corporation

John Wilson

area sales manager, National Instruments

Jingsheng Yu

engineering manager, Robert Bosch Company

DEGREE PROGRAMS OFFERED

Lawrence Tech's College of Engineering offers these graduate programs:

Doctor of Engineering in Manufacturing Systems

Master of Civil Engineering

Master of Construction Engineering Management

Master of Engineering in Manufacturing Systems

Master of Engineering Management (also online)

Master of Science in Architectural Engineering

Master of Science in Automotive Engineering

Master of Science in Civil Engineering (thesis option)

Master of Science in Electrical and Computer Engineering

Master of Science in Industrial Engineering

Master of Science in Mechanical Engineering

Master of Science in Mechatronic Systems Engineering

Certificate in Aeronautical Engineering

Certificate in Electrical Power Systems

Certificate in Energy and Environmental Management

Certificate in Energy Engineering

Certificate in Manufacturing Systems

Certificate in Manufacturing Systems for the Defense Industry

Certificate in Telecommunications Engineering

DOCTOR OF ENGINEERING IN MANUFACTURING SYSTEMS (DEMS)

Lawrence Technological University's Doctor of Engineering in Manufacturing Systems program has been developed for engineers who are interested in acquiring a high level of technical competence in the field of manufacturing systems. Where once the master's degree was seen as the ultimate credential, an increasing number of industry leaders recognize the depth and breadth of competence afforded through preparation at the doctoral level.

Lawrence Tech's Doctor of Engineering in Manufacturing Systems program is unique in these aspects:

- All engineers accepted into this program work full-time in the Detroit metropolitan area – one of the leading and most technologically advanced manufacturing areas in the world;
- The program requires an internship similar to those found in the medical profession. The internships in industry are utilized to solve real manufacturing systems problems in manufacturing;
- Each engineer in the DEMS program has two advisors – an academic advisor who provides state-of-the-art knowledge about engineering principles and an industrial advisor who provides significant industrial experience and support.

DEMS ADMISSIONS REQUIREMENTS

Applicants must be engineering leaders who have the ability to identify society’s needs and the creativity to solve problems economically.

The Doctor of Engineering in Manufacturing Systems is designed for engineers with a high level of technical competence. All applicants must demonstrate strong potential for success based upon:

1. Submission of the Application for Doctoral Admission;
2. A Master of Engineering degree from an accredited college or university (minimum GPA of 3.4);
3. Official transcripts of all completed college work;
4. Three letters of recommendation;
5. Resume;
6. Essay outlining applicant’s goals as achieved through pursuit of the doctorate;
7. Personal interview.

For more information, contact the program director, 248.204.2565, or the Office of Admissions, 248.204.3160.

DEMS CURRICULUM

Applicants who hold a Bachelor of Engineering degree are required to complete 90 credit hours, including a dissertation, as outlined below, for their DEMS degree. These 90 credit hours can be completed in as few as seven years, attending part-time.

Manufacturing Systems Core: 24 credit hours (MEMS or equivalent)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME5603	Engineering Systems Simulation	3
EME 6103	Engineering Materials	3
EME 6203	Manufacturing Processes	3
EME 6403	Quality Control	3
EME 6503	Manufacturing Productivity	3
EME 6603	Engineering Economics	3
EME 6703	Manufacturing Systems	3
EME 7613	Technology Management	3

DEMS Core: 18 credit hours

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 7103	Design of Experiments	3
EME 7203	Manufacturing Systems Simulation	3
EME 7403	Design for Manufacturing	3
EME 7303	Design for Reliability	3
EME 7503	Process Control	3
EME 7603	Strategic Planning	3

Electives: 12 credit hours

Dissertation (EME 800X): 36 Credit Hours

The dissertation will contain the solution to a manufacturing problem: the result may be a new manufacturing-related device, process, or system for which a high level of scholarship, engineering, and ingenuity are required in order to find the solution.

DEMS REQUIREMENTS FOR CONTINUING MATRICULATION

Doctoral students are advised during their first nine (9) credit hours by the director of the program until they select advisors. An academic DEMS advisor must be chosen after the student completes 42 credit hours. This advisor works with the student to identify a sponsoring company and an industrial advisor. The industrial advisor will secure the student's industrial internship. Both advisors supervise the student to achieve DEMS objectives.

DEMS REQUIREMENTS FOR COMPLETION OF DEGREE

Proposal Preparation

Students who have completed 42 credit hours of course work are eligible to register twice for a three credit hour course (EME 8003) that covers the research road map, faculty expertise, student responsibilities, how to conduct a comprehensive and complete literature survey as well as how to define the scope of applied research. The student then registers for EME 8006 to develop a proposal for the dissertation. An "in progress" grade will be given if the student completes an initial draft of the proposal. If the student fails to complete and submit an initial draft of the proposal, then a grade of "incomplete" will be given. Additionally, the student will not be allowed to register again for EME 8006 until the "incomplete" grade is changed to an "in progress" grade.

A dissertation proposal presentation must be submitted within six (6) months from the start of the internship. The proposal should include (but is not be limited to):

- Background on the industrial problem;
- Problem definition;
- State-of-the-art survey;
- Possible solutions;
- Resources needed;
- Action plan to solve the problem.

Proposal Examination

Each candidate's doctoral committee, appointed by the DEMS director, includes a minimum of five members:

- Academic advisor (chair);
- Industrial advisor;
- Two or more graduate faculty from the College of Engineering;
- A Lawrence Tech graduate faculty member from outside the College of Engineering.

The proposal examination is a public event. Two attempts are allowed. Failure in the second attempt will result in the student's termination in the DEMS program. The student becomes a DEMS degree candidate after passing the examination; the successful candidate will implement the action plan as presented or modified by the doctoral committee.

After the Proposal Examination

The student will receive a letter from the DEMS director with one of the following outcomes:

- Pass as submitted
- Pass with attached modification(s)
- Fail and may resubmit
- Fail for the second time and must withdraw

During the Research Phase

At the beginning of each semester, advisors will meet with his/her advisees to agree on the expected progress and deliverables for the upcoming semester, in which the student has registered for EME 8006. Written minutes of this meeting will be kept in the student's file and provided to the student and his/her industrial advisor. An "in progress" grade will be given if the expected progress is achieved. If the student fails to submit an acceptable progress report, a grade of "incomplete" will be given. Additionally, the student will not be allowed to register for additional sections of EME 8006 until the "incomplete" has been changed to an "in progress" grade.

Dissertation

Students are expected to meet on a regular basis with their advisors. These meetings should take place until the dissertation is completed. Students must adhere to the DEMS dissertation preparation guidelines. Students must obtain an approval from their academic and industrial advisors for the submission of the dissertation to the doctoral committee. The dissertation must be completed in a minimum of 30 credits hours (maximum of 36 credit hours).

After the Dissertation Defense

The student must incorporate the doctoral committee's recommendations and changes and submit the final copy of the dissertation to the committee for approval. The student must submit all the copies of the final dissertation as required by the University.

MASTER OF CIVIL ENGINEERING (MCE) AND MASTER OF SCIENCE IN CIVIL ENGINEERING (MSCE)

A master's degree can significantly improve prospects for a promotion and is an important key to new job opportunities. Lawrence Technological University offers a comprehensive master's program in civil engineering that provides technical and practical expertise in a rich menu of civil engineering subjects: environmental, geotechnical, hydraulics/water resources, and structural engineering. Students may specialize in a technical area or distribute their course work among the various concentrations. The program is intended for the practicing civil engineer, but with the proper selection of courses it may be the prelude to additional graduate work.

The master's program in civil engineering requires completing 30 or 33 credit hours, depending on the option chosen. The 30-credit option leads to a Master of Science in Civil Engineering and includes a three-credit graduate project or a six-credit thesis project.

The 33-credit option leads to a Master of Civil Engineering and is based entirely on course work. In line with Lawrence Tech's "theory and practice" approach, both degree programs emphasize practical training and the development of theoretical concepts through classroom experiences and applied research projects. Students have access to industry-standard software packages and advanced experimental testing facilities and are encouraged to interact with practitioners in the field.

All course work is offered in the late afternoon or evening, with normal program completion time in approximately two years. Most courses are offered one night per week starting at 5:45 p.m. or later. Students may select cognate course offerings from architecture, engineering, mathematics, or science with the approval of the graduate director.

MCE AND MSCE ADMISSIONS REQUIREMENTS

Admission to the MCE/MSCE program as a regular graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission;
2. A BS degree in civil engineering (or equivalent) from an ABET-accredited (or equivalent) undergraduate program (minimum GPA of 3.0);
3. Official transcripts of all completed college work;
4. Three letters of recommendation (employer and professor are preferred);
5. Professional resume;
6. Statement of intent.

Applicants who do not meet all conditions for regular admission may be considered for conditional admission upon review by the Graduate Admissions Committee of the College of Engineering. A conditional student will typically be granted regular status after receiving a minimum grade of "B" (3.0) in three consecutive graduate-level courses. Non-engineering graduates may be admitted to the program but may be required to take additional courses as specified by the program director.

MCE AND MSCE TRANSFER POLICY

A maximum of six (6) semester hours of graduate engineering courses taken at other accredited engineering colleges may be transferred, provided they are deemed relevant by the Graduate Admissions Committee. Courses to be transferred must have been taken within the past five (5) years and a grade of “B” (3.0) or better must have been achieved. The student should petition the Graduate Admissions Committee by letter prior to completion of the first semester of graduate work. The student must submit evidence, in addition to transcripts, in the form of syllabi and examinations for each transfer course proposed. The committee may require the applicant to demonstrate proficiency in the subject through interviews with faculty members who have expertise in the subject.

Up to six (6) credits from other departments at the University can be applied toward the Master of Civil Engineering with the approval of the graduate advisor. In addition, graduate students are allowed to apply up to six (6) credits of 4000-level civil engineering courses (senior-level electives) to their master’s degree with the approval of the program director.

MCE AND MSCE DEGREE REQUIREMENTS

MCE

Technical Electives and General Courses (11 courses)	33 credits
Total Credit Hours	33 credits

MSCE Project Option

Technical Electives and General Courses (9 courses)	27 credits
Project	3 credits
Total Credit Hours	30 credits

MSCE Thesis Option

Technical Electives and General Courses (8 courses)	24 credits
Thesis	6 credits
Total Credit Hours	30 credits

MCE AND MSCE CURRICULUM

General Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5103	Applied Geographic Information Systems	3
ECE 5113	Sustainable Construction Pract	3
ECE 6011–31	Civil Engineering Seminar	1
ECE 6123	Infrastructure Problems and Solutions	3
ECE 6143	Infrastructure Systems	3
ECE 6163	Infrastructure Cost and Management	3

Environmental Engineering Specialization

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5323	Environmental Cleanup	3
ECE 5333	Air Pollution Control	3
ECE 5343	Advanced Environmental Engineering	3
ECE 5353	Environmental Management	3
ECE 5363	Surface Water Quality Management	3
ECE 5393	Special Topics in Environmental Engineering	3

Geotechnical Engineering Specialization

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5423	Geoenvironmental Engineering	3
ECE 5433	Ground Improvement Methods for Foundations	3
ECE 5453	Practicum in Geotechnical Engineering	3
ECE 5463	Earthquake Engineering	3
ECE 5473	Earth Retaining Structures	3
ECE 5493	Special Topics in Geotechnical Engineering	3

Hydraulic Engineering Specialization

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5523	River Engineering	3
ECE 5533	Coastal Engineering	3
ECE 5543	Urban Hydraulics	3
ECE 5553	Ports and Harbors	3
ECE 5593	Special Topics in Hydraulic Engineering	3

Structural Engineering Specialization

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5713	Analysis and Design of Prestressed Concrete	3
ECE 5723	Advanced Analysis and Design of Structure	3
ECE 5733	Finite Element Analysis for Structural Engineering	3
ECE 5743	Introduction to Structural Dynamics	3
ECE 5753	Advanced Concrete Design	3
ECE 5763	Advanced Composite Materials and Their Uses in Structures	3
ECE 5783	Bridge Design I	3
ECE 5813	Pavement Analysis and Performance	3
ECE 5793	Special Topics in Structural Engineering	3

General Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5911-3	Graduate Directed Study	1-3
ECE 5293	Special Topics in Civil Engineering	3
ECE 6053	Graduate Project	3
ECE 6073	Thesis I	3
ECE 6083	Thesis II	3

MASTER OF CONSTRUCTION ENGINEERING MANAGEMENT (MCEM)

The Master of Construction Engineering Management, offered through the Department of Civil Engineering, includes courses from both the Department of Civil Engineering and the College of Management's MBA program. This collaboration between the Colleges of Engineering and Management provides a unique and innovative degree program.

The program's objective is to provide specialized education suitable to the needs of students interested in both the concepts of construction engineering and the principles of management. The synthesis of these two fields represents a highly specialized and marketable combination of skills. The degree aims to provide well-rounded training for the specialized field of construction engineering management.

The degree requirements consist of 30 credits, including 18 credits of required core courses, six (6) to nine (9) credits of management electives from the College of Management, and three (3) to six (6) credits of technical electives.

MCEM ADMISSIONS REQUIREMENTS

Admission to the MCEM program as a regular graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission;
2. A BS degree in civil engineering (or equivalent) from an ABET-accredited (or equivalent) undergraduate program (minimum GPA of 3.0);
3. Official transcripts of all completed college work;
4. Three letters of recommendation (employer and professor are preferred);
5. Professional resume;
6. Statement of intent.

Applicants who do not meet all conditions for regular admission may be considered for conditional admission upon review by the Graduate Admissions Committee. A conditional student will typically be granted regular status after receiving a minimum grade of "B" in three consecutive graduate-level courses.

Non-engineering graduates may be admitted to the program but may be required to take additional courses as specified by the program director.

MCEM TRANSFER POLICY

A maximum of six (6) semester hours for graduate engineering courses taken at other accredited engineering colleges may be transferred, provided they are deemed relevant by

the Graduate Admissions Committee of the College of Engineering. Courses to be transferred must have been taken within the past five (5) years and a grade of “B” (3.0) or better must have been achieved. The student should petition the Graduate Admissions Committee by letter prior to completion of the first semester of graduate work. The student must submit evidence, in addition to transcripts, in the form of syllabi and examinations for each transfer course proposed. The committee may require applicants to demonstrate proficiency in the subject through interviews with faculty members who have expertise in the subject.

In addition, up to 12 credits of the MCEM degree can be applied toward the MBA program at Lawrence Tech.

MCEM CURRICULUM

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5213	Project Management Techniques	3
ECE 5223	Techniques of Project Planning and Control	3
ECE 5233	Advanced Construction Techniques and Methods	3
ECE 5243	Construction Accounting and Finance	3
ECE 5253	Risk Management and Personnel	3
ECE 5273	Construction Law	3
TOTAL HOURS		18

Management Electives: 6 to 9 credit hours

Selected courses must be pre-approved by MCEM program director and the College of Management. Suggested management courses include:

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MGT 6013	Leadership and Management	3
MGT 6053	Perspectives in International Business	3
MGT 6233	Business Strategies/E-Commerce	3
MKT 6023	E-Market and Global Economy	3
HRM 5023	Leading Organizational Change	3
HRM 6113	Management and Organization Development	3
HRM 6133	Managing the Project Organization	3

Civil engineering graduate courses that emphasize management concepts can also satisfy this requirement. Suggested courses are:

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5353	Environmental Management	3
ECE 6123	Infrastructure Problems and Solutions	3
ECE 6163	Infrastructure Cost and Management	3

Technical Electives: 3 to 6 credit hours

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5113	Sustainable Construction Practices	3
ECE 5263	International Construction	3
ECE 5283	Advanced Cost Estimating Techniques	3
ECE 5293	Special Topics in Construction Engineering	3
ECE 5353	Environmental Management	3
ECE 5913	Graduate Directed Study	3
ECE 6163	Infrastructure Cost and Management	3

Other graduate courses from civil engineering or other related fields may be applied toward the technical electives requirement. Selected courses must be pre-approved by program advisor.

COMBINED BACHELOR AND MASTER OF SCIENCE IN ARCHITECTURAL ENGINEERING**MASTER OF ENGINEERING IN MANUFACTURING SYSTEMS (MEMS)**

Lawrence Tech's Master of Engineering in Manufacturing Systems is designed for working professionals who are graduates of an accredited undergraduate engineering program. The master's program requires completing 30 credit hours. All course work can be taken in the evening. Each course meets once per week for two and one-half hours, usually starting at 5:45 p.m. This schedule permits the MEMS candidate to complete all degree requirements in approximately two years.

Lawrence Tech's Master of Engineering in Manufacturing Systems program emphasizes the vital relationships and interplay between manufacturing, engineering, research, suppliers, marketing, sales, and management. The program is designed to help students understand the systematic relationships that pervade the modern manufacturing process. It stresses the important interaction between manufacturers and suppliers, which is crucial to improving industrial output. The program seeks to strengthen the ability of practicing engineers to develop, design, and effectively utilize manufacturing systems to produce a quality product at the least cost. The combination of Lawrence Tech's practical orientation, academic experience, resources in this specialized field, and convenient accessibility is unrivaled in the area.

Another important facet of the program is the student body itself. The MEMS candidate participates with, learns from, and gets to know other engineers representing a variety of industries, manufacturers, and suppliers. The opportunity to develop both professional and personal relationships with other graduate students has obvious benefits. The Master of Engineering in Manufacturing Systems program is an interdisciplinary program that draws upon the best resources of the entire University.

MEMS ADMISSIONS REQUIREMENTS

Admission to the MEMS program as a regular graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission;
2. A BS in engineering from an ABET-accredited (or equivalent) undergraduate program (minimum GPA of 3.0);
3. Official transcripts of all completed college work;
4. Minimum of one year of professional experience after graduation preferred;
5. Three letters of recommendation (at least one from an employer documenting professional experience and one from a professor if the applicant has graduated within the last three years);
6. A resume, including experience and all extracurricular activities.

Applicants who do not meet all of the conditions for regular graduate admission may be considered for provisional admission by the Graduate Admissions Committee, provided they demonstrate an exceptionally high aptitude and promise for doing graduate work, and hold a Bachelor of Science degree in engineering. A provisional graduate student will be granted regular status after maintaining a minimum 3.0 GPA in three consecutive graduate-level courses.

MEMS TRANSFER POLICY

A maximum of six (6) semester hours of graduate engineering courses taken at other accredited engineering colleges may be transferred, provided they are deemed relevant by the Graduate Admissions Committee. Courses to be transferred must have been taken in the last five (5) years and a grade of “B” (3.0) or better must have been achieved. The student should petition the Graduate Admissions Committee by letter prior to completion of the first semester of graduate work. The student must submit evidence in addition to transcripts, in the form of syllabi and examinations for each transfer course proposed. The Committee may require the applicant to demonstrate proficiency in the subject through interviews with faculty members who have expertise in the subject.

MEMS DEGREE REQUIREMENTS

The MEMS requires:

Core Courses (8 courses)	24 credits
Electives (2 courses)	6 credits
Total Credit Hours	30 credits

MEMS CURRICULUM

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 5603	Engineering Systems Simulation	3
EME 6103	Engineering Materials	3
EME 6203	Manufacturing Processes	3
EME 6403	Quality Control	3
EME 6503	Manufacturing Productivity	3

EME 6603	Engineering Economics	3
EME 6703	Manufacturing Systems	3
EME 6803	Engineering Management	3

Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 5113	Polymer Materials and Processes	3
EME 5123	Optimization of Manufacturing Systems	3
EME 5253	Engineering Analysis	3
EME 6713	Production Planning and Control	3
EME 6993	Graduate Directed Study	3
EME 7203	Manufacturing Systems Simulation	3
EME 7303	Design for Reliability	3
EME 7613	Technology Management	3

Students may also elect engineering courses from other Lawrence Tech master's programs.

MASTER OF ENGINEERING MANAGEMENT (MEM)

Lawrence Tech's Master of Engineering Management program provides opportunities for students with diverse technical backgrounds to enhance their undergraduate education.

The program, which totals 36 credit hours, is designed for full-time students and working professionals who have degrees in technical fields, such as engineering, engineering technology, physics, chemistry, mathematics, and computer science.

The MEM is a cross-disciplinary program in the engineering and management fields with the objective to provide students with:

- The technical knowledge and skills required to manage technical and engineering functions.
- Greater exposure and opportunities to interact with other professionals from different disciplines in the industry.
- Skills to enhance their professional careers.

All course work can be taken in the evening, allowing working students to complete their studies in approximately two years. Most courses meet once or twice a week for two and one-half hours, usually starting around 5:45 p.m.

MEM ADMISSIONS REQUIREMENTS

Admission to the MEMS program as a regular graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission;
2. A BS in engineering, engineering technology, science, mathematics, or computer science from an accredited college or university (minimum GPA of 3.0);
3. Official transcripts of all completed college work;
4. Three letters of recommendation.

Applicants who do not meet all conditions for regular admissions may be admitted on a provisional basis as determined by the Graduate Admissions Committee of the College of Engineering. The applicant will be evaluated for official graduate student status upon completion of six (6) semester hours of graduate course work, achieving a minimum grade of 3.0 in each course, at the University.

Students with provisional admission status may be required to take additional pre-courses to meet the program admission requirements.

MEM TRANSFER POLICY

For applicants transferring from other graduate programs to the Master of Engineering Management, no more than nine (9) graduate semester credit hours may be transferred from an accredited MEM program. Any exceptions to this policy must be approved by the Graduate Admissions Committee. A minimum grade of 3.0 must have been achieved in all transfer courses. Credit for courses taken in a graduate program will be reviewed to determine whether they may be substituted within the Master of Engineering Management program at Lawrence Tech. A request for transfer courses to be considered must be made in writing at the time of application and must be accompanied by transcripts, course descriptions, and syllabi for each proposed transfer course.

MEM CURRICULUM

The MEM requires:

Core Courses (7 courses)	21 credits
Electives (5 courses)	15 credits
Total Credit Hours	36 credits

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MIS 6013	Management Information Systems	3
MGT 6153	Project Management	3
MGT 6013	Leadership and Management	3
EME 6403	Quality Control	3
EME 6xxx	Enterprise Productivity	3
EME 6763	Quality Engineering Systems	3
EME 7613	Technology Management	3

Electives

CIVIL ENGINEERING

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5233	Advanced Construction Techniques and Methods	3
ECE 5223	Techniques of Project Planning and Control	3
ECE 5273	Construction Law	3
ECE 5283	Advanced Cost Estimating	3
ECE 5263	International Construction	3

COMPUTER SCIENCE

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 6123	Advanced Topics in Software Engineering	3

ELECTRICAL AND COMPUTER ENGINEERING

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EEE 5264	Advanced Microprocessors*	3
EEE 5284	Parallel Architecture*	3
EEE 5364	Computer Networking*	3

*require departmental approval

MANAGEMENT

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MGT 6223	Project Risk and Project Quality Management	3
OPM 6033	Operations Management	3

MECHANICAL ENGINEERING

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 6703	Manufacturing Systems	3
EME 6713	Production Planning and Control	3
EME 6133	Hazardous Materials Management	3
EME 6303	Computer Integrated Manufacturing	3
EME 6503	Manufacturing Productivity	3
EME 6603	Engineering Economics	3
EME 6203	Manufacturing Processes	3
EME 6723	Special Topics in Engineering Management	3
EME 6743	Value Engineering Management	3
EME 6754	Engineering Supply Chain Management	3
EME 6803	Engineering Management	3
EME 6823	Product Innovation and Design	3

MASTER OF SCIENCE IN ARCHITECTURAL ENGINEERING (COMBINED BACHELOR'S AND MASTER'S PROGRAMS) (MSArchE)

Lawrence Technological University's architectural engineering program is an intensive, robust degree that offers course work in math and science, architectural design, and a commitment to educate students with the excellent communication, leadership, and entrepreneurial skills they need to become highly sought contributors to the built environment.

The Master of Science in Architectural Engineering requires a total of 164 credit hours, which includes 88 credit hours of core courses. Students can choose an area of concentration for their advanced course work, including mechanical systems, electrical systems, structural systems, and construction.

The architectural engineering program's educational objectives and outcomes, formulated by the faculty in consultation with the Architectural Engineering Industrial Advisory Board and other important program constituents, are:

Educational Objectives

The MSArchE is designed to help students develop advanced knowledge, skills, and experience in the growing field of sustainable building design and systems engineering and integration. Students will:

1. Acquire and articulate through written, visual, and oral communication the skills to integrate building design and aesthetics with the mechanical, electrical, and structural systems of the built environment.
2. Employ problem-solving skills and awareness of emerging green technologies to create a collaborative culture in which the design process, building systems integration and constructability, and leadership in energy efficiency can flourish and support the worldwide need for skilled building designers and detailers.
3. Lead design and construction teams in the process and development of conceptual designs, design drawings, construction drawings and specifications, and construction contract administration for building sustainability in a global market.

Educational Outcomes

All architectural engineering graduates must:

1. Apply knowledge of mathematics and science, including differential equations, probability and statistics, calculus-based physics, and general chemistry.
2. Solve and analyze problems in statics, strength of materials, thermodynamics, fluid mechanics, electric circuits, and engineering economics.
3. Design and conduct experiments, as well as to analyze and interpret data.
4. Apply sensitivity and skill to building projects by integrating design, architectural theory, and history
5. Design a system, component, or process to meet desired needs for structural, mechanical, electrical, and construction/construction management building challenges.
6. Communicate and interact with, function within, and lead multidisciplinary teams in the execution of building projects.
7. Understand one's professional, ethical, and social responsibilities in designing and executing structures that are safe, durable, economical, and healthy and incorporate sustainable design and energy-efficient systems.
8. Understand the impact of engineering solutions in a global and societal context.
9. Engage in life-long learning and recognize its necessity.
10. Have knowledge of contemporary issues.
11. Use the modern techniques, skills, and engineering tools necessary for engineering practice and embrace the responsibility of being "master builders," the leaders, innovators, and entrepreneurs of the built environment.

Architectural Engineering Advisor/Director

All students should have an advisor/director-approved Plan-of-Work. Contact Filza Walters, director of architectural engineering, at 248.204.2620 or fwalters@ltu.edu, to set

up an appointment. Students wishing to specialize in an area of emphasis can obtain a list of eligible elective courses from the director of architectural engineering.

MSArchE CURRICULUM

TOTAL SEMESTER CREDIT HOURS: 164

MSArchE students must complete all courses listed below.

Freshman Year

FIRST SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
COM 1103	English Composition	3
COM 1001	University Seminar	1
EAE 1081	Intro to Architectural Engineering	1
MCS 1414	Calculus 1	4
EAE 1093	Architectural Engineering History	3
ART 1113	Basic Design 1	3
	TOTAL	15

SECOND SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
LLT 1213	World Masterpieces 1	3
COM 2103	Technical and Professional Communication	3
CHM 1213	University Chemistry 1	3
CHM 1221	University Chemistry 1 Lab	1
MCS 1424	Calculus 2	4
ART 1133	Basic Design 2	3
	TOTAL	17

Sophomore Year

FIRST SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
LLT 1223	World Masterpieces 2	3
SSC 2413	Foundations of Amer. Exp.	3
PHY 2413	University Physics 1	3
PHY 2421	University Physics 1 Lab	1
MCS 2414	Calculus 3	4
ARC 1213	Visual Communications 1	3
	TOTAL	17

SECOND SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
LDR 2001	Leadership Models and Practices	1
EGE 2013	Statics	3
PHY 2423	University Physics 2	3
PHY 2431	University Physics 2 Lab	1
MCS 2423	Differential Equations	3
ARC 2813	Electronic Methods 1	3
ARC 1223	Visual Communications 2	3
	TOTAL	17

Junior Year

FIRST SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
SSC 2423	Development of Amer. Exp.	3
ECE 3013	Mechanics of Materials	3
EAE xxx3	Electrical Systems I	3
EGE 3003	Thermodynamics	3
ARC 2313	Building Systems 1	3
EEE 2123	Circuits and Electricity	3
	TOTAL	18

SECOND SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
COM 3000	Written Proficiency Exam	0
ECE 3723	Theory of Structures	3
EAE xxx3	Mechanical Systems I	3
EME 3024	Fluids	4
ARC 2323	Building Systems 2	3
ARC 2321	Building Systems 2–Global Lecture	1
EAE xxx4	Architectural Engineering Integrated Design Studio 1	4
	TOTAL	18

Senior Year

FIRST SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
LLT/SSC	Jr./Sr. Elective	3
ECE 4743	Concrete Design	3
EAE xxx3	Electrical Systems II	3
LDR 3000	Leadership Seminar Series	0
SSC 2303	Principles of Economics	3
EAE xxx4	Architectural Engineering Integrated Design Studio 2	4
	TOTAL	16

SECOND SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 4753	Steel Design	3
EAE xxx3	Mechanical Systems II	3
LDR 4000	Leadership Capstone	0
MCS 3403	Probability and Statistics	3
EAE xxx3	Architectural Acoustics	3
EAE xxx4	Architectural Engineering Integrated Design Studio 3	4
	TOTAL	16

5th Year (Graduate Course Work)

FIRST SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 6163	Infrastructure Cost Management	3
EAE 5xx3	Advanced Mechanical Systems	3
EAE xxx3	Advanced Electrical Systems	3
ARC 5942	Project Management	2
EAE xxx4	Graduate Architectural Engineering Integrated Design Studio 4	4
	TOTAL	15

SECOND SEMESTER

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ECE 5xx3	Advanced Structural Systems	3
EAE 5xx3	Building Controls and Instrument	3
EAE 5xx3	Alternative Energy Solutions	3
ARC 5xx2	Architectural Engineering Project Organization	2
EAE xxx4	Graduate Architectural Engineering Integrated Studio 5	4
	TOTAL	15

FE EXAM

Candidates for degrees in civil, electrical, mechanical, and architectural engineering are strongly encouraged to complete the Fundamentals of Engineering (FE) Examination administered by the National Council of Engineering Examiners.

MASTER OF SCIENCE IN AUTOMOTIVE ENGINEERING (MSAE)

Lawrence Tech's Master of Science in Automotive Engineering program is designed for working professionals who are graduates of accredited undergraduate mechanical or electrical engineering programs. All course work is offered in the evening, allowing working students to complete their studies in approximately two years. Most courses meet once per week for two and one-half hours, usually starting at 5:45 p.m.

Geared to help students use and improve their automotive engineering leadership skills, the MSAE encompasses strategic planning, design, product engineering, manufacturing, and engineering management. A key element of the course work is the concept that the complete automobile is a single system. All other components and component packages are subsystems, which cannot be changed independently. Woven throughout each course is the recognition that in such a complex system all areas must behave as a single entity to achieve goals. The program also emphasizes use of both full-time faculty from Lawrence Tech and an adjunct faculty of highly qualified experts currently working in the industry, who bring to the classroom their experience with the latest advancements in the field.

This Master of Science in Automotive Engineering program derives unique value from Lawrence Tech's historic relationship with the automotive and manufacturing industries, the University's philosophical emphasis on the practical application of knowledge, and the extensive utilization of industry experts as teachers and mentors.

The student body of practicing engineers, representing a broad variety of automotive related companies and a wide variety of job assignments, provides an important additional learning resource. The students work in teams on assigned projects in many of the courses, learning and enhancing teamwork as well as sharing expertise with one another.

The Master of Science in Automotive Engineering is an interdisciplinary program consisting of 10 three-credit courses: eight core courses and two technical electives. A total of 30 credit hours are required for graduation.

Students are also allowed to select a thesis option by enrolling in two three-credit-hour thesis courses in lieu of both technical electives. This option provides students with an in-depth experience in one subject area. Students who elect to enroll in the thesis option are required to select a faculty advisor from either the Departments of Mechanical or Electrical and Computer Engineering. Students may also select an industrial advisor in addition to the faculty advisor. Students must submit their thesis to a professional society for publication (e.g., *SAE Technical Papers*, *ASME Journal*, etc.). Further, all students must make a verbal presentation of their findings.

Students are required to meet regularly with their advisor. All thesis projects will be approved by the program director in addition to the faculty advisor. A copy of the proposal and the project commitment form, signed by the student and the advisor, must be presented to the program director before a student may register in the course. Upon thesis completion, two copies of the thesis, signed by both student and advisor must be presented to the program director. One copy will be maintained by the director and the second shall be held in the Lawrence Tech library.

MSAE ADMISSIONS REQUIREMENTS

Admission to the MSAE program as a regular graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission;
2. A BS degree in mechanical or electrical engineering (or equivalent) from an accredited (or equivalent) university (minimum GPA of 3.0);
3. Official transcripts of all completed college work;
4. Three letters of recommendation from an employer, business contact, and/or faculty member;
5. A resume, including professional experiences and extracurricular activities;
6. Statement of purpose that includes personal and professional achievements within the last five years.

Applicants who do not meet all of the conditions for regular graduate admission may be considered for provisional admission by the Graduate Admissions Committee, provided they demonstrate an exceptionally high aptitude and promise for doing graduate work in this area and hold a Bachelor of Science degree in mechanical or electrical engineering. Applicants may be required to take the GRE examination and pass the TOEFL examination.

Additionally, the academic background of candidates will be evaluated by the Graduate Admissions Committee as part of the admissions process. Students found deficient in a particular subject area are required to enroll in pre-core crossover courses before being allowed to enroll in some of the core program courses. No graduate credit will be granted for these courses.

Pre-core Courses

Electrical Engineers take:

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 4603	Introduction to Mechanical Systems	3
EME 4613	Introduction to Thermal Systems	3

Mechanical Engineers take:

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EEE 2123	Circuits and Electronics	3
EME 3213	Introduction to Mechatronics (non-ME)	3

MSAE TRANSFER POLICY

A maximum of six (6) semester hours of graduate engineering courses taken at other accredited engineering colleges may be transferred, provided they are deemed relevant by the Graduate Admissions Committee. Courses to be transferred must have been taken in the last five (5) years and a grade of “B” (3.0) or higher must have been achieved. Students should petition the Graduate Admissions Committee by letter prior to completion of the first semester of graduate work. Students must submit evidence, in addition to transcripts, in the form of syllabi and examinations for each transfer course proposed. The committee may require the applicant to demonstrate proficiency in the subject through interviews with faculty members who have expertise in the subject.

MSAE CURRICULUM

The Master of Science in Automotive Engineering requires:

Core Courses (8 courses)	24 credits
Electives or Thesis Option (2 courses)	6 credits
Total Credit Hours	30 credits

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 5253	Engineering Analysis 1	3
EME 5433	Vehicle Dynamics 1	3
EME 6333	Body and Chassis Systems	3
EME 6353	Automotive Mechanical Systems	3
EME 6363	Automotive Electrical Systems	3
EME 6373	Powertrain Systems 1-Engines	3
EME 6383	Powertrain Systems 2-Transmissions (manual and automatic)	3
EME 6623	Automotive Control Systems 1	3

Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 5203	Design of Mechanical Joints	3
EME 5573	Automotive HVAC 1 (Heating, Ventilating, and Air Conditioning)	3

EME 6343	Automotive Manufacturing	3
EME 6443	Emission Control Systems	3
EME 6473	Hybrid Electric Vehicles	3
EME 6513	Advanced Automotive Driveline Systems 1	3
EME 6803	Engineering Management	3
EME 6913	Thesis 1	3
EME 6923	Thesis 2	3
EME 6983	Special Topics in Automotive Engineering	3
EME 6993	Graduate Directed Study	3
EME 7433	Vehicle Dynamics 2	3
EME 7513	Advanced Automotive Driveline Systems 2	3
EME 7623	Automotive Control Systems 2	3

AUTOMOTIVE RESEARCH

Lawrence Tech's Automotive Engineering Institute (AEI) offers opportunities for students to participate in applied research projects. Focused on creating new knowledge in the field of automotive engineering, the AEI extends Lawrence Tech's strong research and development capabilities to corporations and governmental organizations. Students work with these partners to research such subjects as vehicle dynamics, driveline technology, NVH, emerging energy technologies, emissions, and hybrid vehicles. The University's unique 4x4 vehicle chassis dynamometer with individual wheel control is an invaluable research tool for studying vehicle performance, safety, stability, and fuel economy and responding to emerging needs in vehicle engineering.

AFFILIATE INSTITUTES

Lawrence Tech currently has a cooperative agreement with the International Institute of Information Technology in Pune, India, as an affiliate institution. There may be other cooperative agreements with other institutions in the future. The transfer credit policy will be as established by agreement with respective institutions.

MASTER OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING (MSECE)

Lawrence Tech's Master of Science in Electrical and Computer Engineering program is designed for the working professional. Taking course work entirely in the evening, the student can complete the degree in two years or less. The Master of Science in Electrical and Computer Engineering affords students an exciting opportunity to learn about advanced engineering methods used for high technology products and services. It is designed to provide advanced professional skills, expand knowledge of specific technical disciplines, and improve a student's ability to apply scientific principles in solving engineering problems.

This degree is designed to provide graduates with the tools needed to maintain their knowledge of leading technology and enhance their ability to communicate with audiences having a variety of technical backgrounds. It is also designed to offer the background required for the pursuit of a senior engineering position or acceptance into a PhD program.

Lawrence Tech's MSECE program has been developed and thoroughly assessed with assistance from an active Industrial Advisory Board, made up of a distinguished group of engineering professionals selected for their knowledge of business practices and their experience working in the field.

MSECE ADMISSIONS REQUIREMENTS

Admission to the MSECE program as a regular graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission;
2. A BS degree in electrical engineering or computer engineering (or equivalent) from an accredited (or equivalent) college or university (minimum GPA of 3.0);
3. Official transcripts of all completed college work;
4. Three letters of recommendation (employers and professors are preferred);
5. A professional resume.

Students with a GPA of less than a 3.0 may be admitted on a provisional basis. They will be evaluated for official graduate student status upon completion of (possibly some pre-core courses) and 12 semester hours of electrical and computer engineering graduate course work at Lawrence Tech. This evaluation will be conducted by the program director and the Graduate Admissions Committee. Students are notified of their status within two weeks of completion of the minimum required hours.

Students with a Bachelor of Science degree in a field other than electrical or computer engineering who have a GPA of at least 3.0 may be admitted on a provisional basis. These students must satisfy all prerequisite requirements before they can be granted official graduate status. The program director and the Graduate Admissions Committee decide what the prerequisite requirements are on a case-by-case basis.

MSECE TRANSFER POLICY

A maximum of nine (9) graduate semester credit hours may be transferred, and these must be from an accredited Master of Science program in electrical, electrical and computer, or computer engineering program. Credit for courses taken in a graduate program other than those listed above will be reviewed by the program director and the Graduate Admissions Committee for acceptability as a substitute within Lawrence Tech's program.

Courses transferred must have been taken in the last five (5) years and a grade of "B" (3.0) or higher must have been achieved. All petitions for course transfer consideration must be made in writing at the time of application. Credit may be earned at another university after matriculation by guest credit. Guest credit forms must be completed at both Lawrence Tech and the university where the courses are to be taken. No guest credit will be granted for courses that are being offered at Lawrence Tech during the same semester during which the student is applying for guest credit. Since fewer MSECE graduate courses are offered during the summer semester, some students apply for guest

credit during the summer. All requests for transfer or guest credit must be accompanied by an official transcript.

MSECE DEGREE REQUIREMENTS

The MSECE program offers students two degree options:

Option I: Course Work Only

This option requires 20 credit hours of core courses plus 12 credit hours of technical electives for a total of 32 credit hours. At least one of the technical electives must be at the 6000 level.

Option II: Course Work and Thesis

This option requires 20 credit hours of core courses plus a 4-credit-hour technical elective and a six-credit-hour thesis for a total of 30 credit hours. The student may begin work on the master's thesis after all required electrical and computer engineering graduate courses are completed. The student, in consultation with his or her thesis advisor, proposes a thesis topic by submitting the Petition for a Master's Thesis form and a thesis proposal that describes the research topic in detail and presents the research plan. The thesis proposal must be successfully presented to the student's thesis committee before the master's thesis credits are elected. Once the thesis is accepted, the student elects any combination of EEE 6911, EEE 6912, and EEE 6913 that adds up to six credits. Once the thesis is completed, it must be successfully defended before the student's thesis committee.

MSECE CURRICULUM

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EEE 5114	Engineering Analysis	4
EEE 5324	Network Synthesis	4
EEE 5654	Digital Signal Processing	4
EEE 5444	Digital Communications	4
EEE 5534	Digital Controls	4

Technical Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EEE 5144	Power Distribution Systems	4
EEE 5134	Electrical Machines and Transformers	4
EEE 5204	Advanced Computer Architecture	4
EEE 5264	Advanced Microprocessors	4
EEE 5284	Parallel Architectures	4
EEE 5314	Power Electronics	4
EEE 5364	Computer Networking	4
EEE 5524	Modern Control Systems	4
EEE 5554	Applications of Artificial Intelligence	4
EEE 5564	Interfacing and Control of Robots	4

EEE 5624	VLSI Systems Design	4
EEE 5634	Optical Systems Engineering	4
EEE 5784	Communication Circuits	4
EEE 5911-4	Directed Study	1-4
EEE 5993-4	Special Topics in Electrical and Computer Engineering	3-4
EEE 6444	Software Defined Radio	4
EEE 6524	Nonlinear and Optimal Control	4
EEE 6534	Adaptive Control	4
EEE 6704	Engineering Optimization	4
EEE 6784	Advanced Communication Theory	4
EEE 6901-4	Master's Project	1-4
EEE 6911-3	Master's Thesis Research	1-3
EEE 6993-4	Advanced Special Topics in Electrical and Computer Engineering	3-4

The following Master of Science in Computer Science (MSCS) degree electives may be used as technical electives with an advisor's approval. (The prerequisites for these courses are listed in their course descriptions.)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5023	Java Programming	3
MCS 5103	Software Engineering	3
MCS 5303	Database Systems	3
MCS 5503	Intelligent Systems	3
MCS 5703	Introduction to Distributed Computing	3
MCS 6123	Adv. Topics Software Engineering Techniques	3
MCS 6323	Distributive Database Systems	3
MCS 6513	Advanced Topics in Intelligent Systems	3
MCS 6723	Advanced Topics in Distributed Computing	3

MSECE ACADEMIC STANDING

Students are expected to maintain a 3.0 GPA. If a student's GPA drops below 3.0, the student is placed on academic probation. If a student's GPA has not been raised to 3.0 at the end of one semester of academic probation, the student must appear before the ECE Graduate Admissions Committee to explain why he or she should not be terminated from the program. Any student whose GPA has been below 3.0 for one semester, who does not appear before the committee, or who has not attained a GPA of 3.0 after two semesters of academic probation will be terminated from the program. Any student terminated from the program may reapply after one calendar year. A maximum of two grades below B (B-, C+, or C) can be counted toward a master's degree, as long as the student's GPA remains at or above 3.0, and the grades in question were earned at Lawrence Tech. Grades of C- (or lower) will not be counted toward the graduate degree.

MSECE WAIVER OF A REQUIRED COURSE

Students who have completed course work that duplicates a required course may petition for waiver of that course. The petition must include the following:

1. The name of the institution where the equivalent course work was taken.
2. The name and number of the course that duplicates material in a required course.
3. A copy of the course syllabus, which must include the name and author of the textbook used, as well as detailed descriptions of the topics covered.

If the course was offered at the graduate level at the other institution, the student may petition to have the course transferred into the MSECE program. A maximum of eight (8) hours of credit may be transferred in this manner.

If the course was offered at the undergraduate level, no graduate credit may be given, but a required course may be waived. The waiver of a required course does not reduce the total number of credit hours that must be earned in the MSECE program. If, for example, a student obtains a waiver of the Network Synthesis course because the material was covered in an undergraduate course, another course must be substituted for Network Synthesis so that the total number of credit hours earned is still 32 or 30, if the thesis option is elected.

MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING (MSIE)

Industrial engineers are charged with developing more efficient processes, reducing costs, and increasing productivity within the manufacturing industry – essential functions that employers depend on to remain successful. In order to improve efficiency, industrial engineers use their knowledge of mathematics to study product requirements and then design the manufacturing and information systems needed to meet those requirements. They also design production planning and control systems, improve systems for the distribution of goods and services, develop wage and salary administration systems and job evaluation programs, and create management control systems to help with cost analysis and financial planning.

Just as industrial engineering itself is growing, so are certain disciplines within the field, most notably in health care. In response to this growing trend, Lawrence Tech's MS in Industrial Engineering features a unique concentration in health care systems. In fact, Lawrence Tech is currently the only school in southeast Michigan offering this concentration, which focuses on designing and improving the safety, cost, efficiency, and quality of health care processes and systems. As an industrial engineer specializing in health care systems, you may be involved in improving scheduling and sequencing, operational control, and overall quality management.

Lawrence Tech's Master of Science in Industrial Engineering can prepare you to compete in today's ever-changing workforce by not only helping you stay abreast on current trends and technologies within the field, but also by developing your leadership skills. The MS in Industrial Engineering focuses on providing advanced knowledge in

operations optimization, process control, reliability, design of experiments, and more. This rigorous program, consisting of 30 credit hours, allows you to choose either a course-work only option or a thesis option. Both feature the flexibility demanded by busy professionals, with most courses available in the evenings and some offered online.

MSIE ADMISSIONS REQUIREMENTS

Admission to the MSIE program as a regular graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission.
2. An undergraduate degree in engineering, science, math, computer science, or physical science (or other technical field) from an accredited college or university. Individuals with a degree in a non-engineering field may be required to take prerequisite course work (minimum GPA of 3.0).
3. Official transcripts of all completed college work.
4. Three letters of recommendation, preferably from employers and former professors.
5. A resume, including experience and relevant extracurricular activities.

Applicants who do not meet all requirements may be admitted on a conditional basis and will be granted regular status upon the completion of three consecutive graduate-level courses with a minimum 3.0 GPA.

TRANSFER CREDITS

A maximum of six (6) semester hours of graduate engineering courses taken at other accredited engineering colleges may be transferred, provided they are deemed relevant by the Graduate Admissions Committee. Transferred courses must have been taken in the last five years and a grade of “B” (3.0) or higher must have been achieved. Students should petition the Graduate Admissions Committee by letter prior to completion of the first semester of graduate work. Students must submit evidence, in addition to transcripts, in the form of syllabi and examinations for each transfer course proposed. The Committee may require the applicant to demonstrate proficiency in the subject matter through interviews with faculty members who have expertise in the subject.

MSIE DEGREE REQUIREMENTS

Course Work and Thesis Option

Core Courses (6 courses)	18 credits
Electives (2 courses)	6 credits
Thesis	6 credits
Total Credit Hours	30 credits

Course Work Only Option

Core Courses (6 courses)	18 credits
Electives (4 courses)	12 credits
Total Credit Hours	30 credits

Healthcare Concentration Option

Core Courses (6 courses)	18 credits
Electives (4 courses)	12 credits
Total Credit Hours	30 credits

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 5603	Engineering Systems Simulation	3
EME 6403	Quality Control	3
EME 6653	Advanced Optimization Techniques	3
EME 6663	Applied Stochastic Processes	3
EME 6713	Production, Planning, and Control	3
EME 7613	Technology Management	3

Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 6673	Six Sigma Processes	3
EME 6743	Value Engineering	3
EME 6753	Engineering Supply Chain Management	3
EME 7103	Design of Experiments	3
EME 7303	Design for Reliability	3
MGT 6223	Project Risk and Project Quality Management	3

CONCENTRATION

Healthcare Systems

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 6843	Healthcare Systems Engineering	3
EME 6853	Healthcare Operations Analysis	3
EME 6863	Healthcare Information Systems	3
EME 6873	Logistics in Healthcare Systems	3
EME 6883	Healthcare Human Factors	3
EME 6893	Healthcare Economics	3

MASTER OF SCIENCE IN MECHANICAL ENGINEERING (MSME)

Lawrence Tech's Master of Science in Mechanical Engineering program provides opportunities for students to enhance their undergraduate engineering education. In the diverse field of mechanical engineering, many students find it both necessary and rewarding to pursue more advanced study in their particular areas of interest to enhance their professional careers. The MSME curriculum is structured to prepare graduate students in fields such as combustion engines, emissions, energy systems, manufacturing processes and systems, structural analysis, vehicle dynamics, powertrain systems, dynamics, vibrations, and fluid mechanics.

The MSME, which totals 30 credit hours, is designed for full-time students and working professionals who are graduates of ABET-accredited undergraduate engineering

programs. All course work can be taken in the evening, allowing working students to complete their studies in approximately two years. Most courses meet once or twice a week for two and a half hours, usually starting around 5:45 p.m. Applicants may choose between two options, one focused strictly on course work and the other incorporating a thesis. Pending the approval of the MSME Graduate Admissions Committee, working professionals pursuing the thesis option can choose a topic in conjunction with their job or company.

MSME ADMISSIONS REQUIREMENTS

Admission to the MSME program as a regular graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission;
2. A BS degree in mechanical engineering (or equivalent) from an ABET-accredited (or equivalent) college or university (minimum GPA of 3.0);
3. Official transcripts of all completed college work;
4. Two letters of recommendation, including one from a professor in the student's undergraduate program and one from a corporate supervisor.

Applicants who do not meet all conditions for regular admission may be admitted on a provisional basis as determined by the Graduate Admissions Committee. The applicant will be evaluated for official graduate student status upon completion of nine (9) semester hours of graduate course work, achieving a minimum grade of 3.0 in each course, at the University. Applicants with an engineering baccalaureate degree in a field other than mechanical engineering who have a GPA of at least 3.0 may be admitted on a provisional basis. These students must satisfy all prerequisite requirements before they can be granted official graduate status. All course work must be completed within five (5) years after the program is started.

MSME TRANSFER POLICY

For applicants transferring from other graduate programs into the MSME program, no more than six (6) graduate semester credit hours may be transferred, and these must be from an accredited MSME program. Any exceptions to this policy must be approved by the Graduate Admissions Committee. A minimum grade of 3.0 must have been achieved in all transfer courses. Credit for courses taken in a graduate program other than mechanical engineering will be reviewed to determine whether they may be substituted within the MSME program at Lawrence Tech. A request for transfer courses to be considered must be made in writing at the time of application and must be accompanied by transcripts, course descriptions, and syllabi for each proposed transfer course. For some transfer courses, the Graduate Admissions Committee may require the applicant to demonstrate proficiency in the subject through interviews with faculty members who have expertise in the subject.

MSME DEGREE REQUIREMENTS

The MSME program offers students two degree options:

Option I: Course Work and Thesis

Core Courses (6 courses)	18 credits
Electives (2 courses)	6 credits
Thesis	6 credits
Total Credit Hours	30 credits

Option II: Course Work Only

Core Courses (6 courses)	18 credits
Electives (4 courses)	12 credits
Total Credit Hours	30 credits

MSME CURRICULUM

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 5143	Internal Combustion Engines	3
EME 5153	Applied Thermodynamics	3
EME 5173	Transport Phenomena	3
EME 5213	Mechanical Vibrations	3
EME 5223	Advanced Mechanics of Materials	3
EME 5253	Engineering Analysis I	3

Students can choose elective courses and receive a concentration in one of six fields: Automotive; Energy Systems; Manufacturing; Mechatronics; Solid Mechanics, Dynamics, and Vibration Systems; and Thermal/Fluid Systems. Students who choose the thesis option can obtain a concentration if they take two courses from one of the above areas and write their thesis in that same field. Students not writing the thesis can obtain a concentration if they take four courses in one of the concentration areas. Students will be credited for only one concentration.

Electives

Mathematics

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 6283	Engineering Analysis II	3

CONCENTRATIONS

Automotive

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 6343	Automotive Manufacturing	3
EME 6353	Automotive Mechanical Systems	3
EME 6383	Powertrain Systems 2	3
EME 6433	Advanced Vehicle Dynamics	3
EME 6453	Advanced CAD/FEA Engineering	3
EME 6573	Advanced Automotive HVAC	3

Energy Systems

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 5193	Solar and Wind Energy Generation Systems	3
EME 5263	Energy Resources and Technology	3
EME 5273	Heat Pipes	3
EME 5283	Elements of Nuclear Engineering	3
EME 5293	Fusion Engineering	3
EME 5313	Biofuels and Biomass Energy Engineering	3
EME 6163	Fuel Cells and Hydrogen	3

Manufacturing

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 6103	Engineering Materials	3
EME 6203	Manufacturing Processes	3
EME 6303	Computer Integrated Manufacturing	3
EME 6323	Expert Systems in Manufacturing	3
EME 6403	Quality Control	3
EME 6703	Manufacturing Systems	3

Mechatronics

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MSE 6113	Analytical and Adaptive Dynamics in Mechatronic Systems	3
MSE 6123	Mechanical Design of Mechatronic Systems/Robots	3
MSE 6143	Adaptive Control in Mechatronic Systems	3
MSE 6153	Optimization in Mechatronic Systems	3
MSE 6213	Stability in Mechatronic Systems	3
MSE 6283	Autonomous Wheel Power Management Systems	3

Solid Mechanics, Dynamics, and Vibrations Systems

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 6113	Fatigue Analysis	3
EME 6123	Automotive Structural Analysis	3
EME 6213	Fundamentals of Acoustics	3

EME 6423	Advanced Dynamics	3
EME 6493	Theory of Plates and Shells	3
EME 6533	Mechanical Vibrations II	3
EME 6553	Structural Stability	3
EME 6593	Random Vibrations and Spectral Analysis	3
EME 6613	Elasticity I	3
EME 7113	Fracture Mechanics	3

Thermal/Fluid Systems

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 6133	Viscous Flow	3
EME 6153	Incompressible Flow I	3
EME 6223	Conduction Heat Transfer	3
EME 6233	Convection Heat Transfer	3
EME 6243	Radiation Heat Transfer	3
EME 6253	Turbulence	3
EME 6393	Compressible Flow I	3
EME 6413	Advanced Thermodynamics	3
EME 6523	Combustion and Emissions	3
EME 6543	Computational Fluid Dynamics	3
EME 6563	Aerodynamics	3
EME 7213	Advanced Combustion and Emissions	3
EME 7543	Advanced Computational Fluid Dynamics	3

MASTER OF SCIENCE IN MECHATRONIC SYSTEMS ENGINEERING (MSMSE)

Many mechanical functions in various products, systems, and processes have rapidly and affordably been replaced by computer and electronically based systems that dramatically improve the level of customer satisfaction. The automobile today contains over 100 computers – and the car is just one of the many modern machines, from clothes dryers and dishwashers to auto-focus cameras and ATMs, that rely on computer- and electronically controlled mechanical systems for high performance and adaptability. Control systems also play an indispensable role in robotics and the development of intelligent vehicles, which can function as everything from space probes to mobile military reconnaissance units.

The engineering of controllable mechanical systems is the focus of the emerging integrative discipline known as mechatronics. Mechatronic systems engineers use precision mechanical, electrical, and computer engineering; control theory; computer science; and sensor and actuator technology to design the enhanced products, systems, and manufacturing processes demanded by the marketplace. Lawrence Tech's Master of Science in Mechatronic Systems Engineering provides the advanced scientific and engineering knowledge graduates need to succeed in the rapidly changing world of engineering.

Lawrence Tech's Master of Science in Mechatronic Systems Engineering is one of just a few graduate programs in the United States and the only such program in Michigan. Mid-career professionals can get the education they need in classes that are conveniently scheduled in the evenings.

As an interdisciplinary, high-technology field in the engineering of controllable mechanical systems, the MSMSE program synergizes the knowledge outcome by integrating specific areas of:

- mechanical engineering
- electrical and computer engineering
- mathematics and computer science

The MSMSE program especially emphasizes autonomous and conventional vehicle mechatronic systems engineering and industrial robotics engineering.

Full-time faculty members conduct the teaching process together with a team of highly accomplished and recognized adjunct professors and guest lecturers from industry and governmental research agencies. Mechatronics students gain deep analytical knowledge, research skills, and extensive hands-on experience through product-oriented courses, laboratory and computer workshops, and open-ended engineering projects.

MSMSE PROGRAM OBJECTIVES

The 30-credit-hour MSMSE program is designed to provide students with advanced knowledge in mechatronics. Students will focus on:

1. Learning the principles in mechanical system design for mechatronic systems.
2. Developing strong analytical and application skills in the adaptive dynamics of mechatronic systems.
3. Gaining expert knowledge in the areas of the logic design of mechatronic systems, the classical and modern intelligent/robust control algorithm development, and designing mechanical systems in conjunction with their control systems.
4. Developing analytical skills in the optimization of mechatronic systems.
5. Learning the principles of designing and implementing control algorithms in hardware, the mechatronic systems.

MSMSE ADMISSION REQUIREMENTS

Admission to the MSMSE program as a regular graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission;
2. A BS in mechanical engineering or electrical and computer engineering (or equivalent) from an ABET-accredited (or equivalent) undergraduate college or university program (minimum GPA of 3.0). Applicants who hold a BS in mathematics and computer science (or equivalent) from an accredited college or university and 3–5 years experience working in a mechatronic engineering field may apply;
3. Official transcripts of all completed college work;

4. Three letters of recommendation, including one from a corporate supervisor and one from a professor in the student's undergraduate program, if the student graduated within the last three years.

The MSMSE program director and Program Committee, if necessary, may evaluate and consider applicants, who do not meet all conditions for regular admission, for conditional admission.

Conditional students are granted regular status after maintaining a minimum GPA of 3.0 in three consecutive graduate-level courses. Applicants will be notified of their status within two weeks of completion of the minimum required hours. Applicants must satisfy all prerequisite requirements before they can be granted official graduate status. The MSMSE program director will decide prerequisite requirements. Applications to the MSMSE program may be submitted at any time of the year, for matriculation during any future semester.

MSMSE TRANSFER POLICY

No more than six (6) graduate semester credit hours may be transferred, and these must be from accredited programs. A form with a request for courses for the current/coming semester must be submitted at the time of application. A minimum grade of 3.0 must have been achieved in the transfer courses. Courses must be completed within five (5) years after the program was started.

MSMSE CURRICULUM

The MSMSE curriculum requires:

Core Courses (8 courses)	24 credits
Electives (2 courses)	6 credits
Total Credit Hours	30 credits

All courses with the MSE prefix were uniquely designed and developed for the MSMSE program.

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MSE 5133	Modern Control in Mechatronic Systems	3
MSE 6113	Analytical and Adaptive Dynamics in Mechatronic Systems	3
MSE 6123	Mechanical Design of Mechatronic Systems/Robots	3
MSE 5563	Intelligent Control	3
MSE 6143	Adaptive Control in Mechatronic Systems	3
MSE 6153	Optimization in Mechatronic Systems	3
MSE 6173	Mechatronic Systems Implementation I	3
MSE 6183	Mechatronic Systems Implementation II	3

Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MSE 6213	Stability in Mechatronic Systems	3
MSE 6223	Algorithmic Synthesis of Complex Mechatronic Systems	3
MSE 6253	Thesis I	3
MSE 6263	Thesis II	3
MSE 6273	Mechatronic Manufacturing Systems	3
MSE 6283	Autonomous Wheel Power Management Systems	3
MSE 6293	Intelligent Tire and Vehicle Structure Mechatronics	3
MSE 7283	Robust Mechatronic Systems	3
MCS 5503	Intelligent Systems	3
MCS 6513	Advanced Topics in Intelligent Systems	3
EME 6623	Automotive Controls Systems I	3
EME 7623	Automotive Control Systems II	3
EEE 5534	Digital Control Systems	4
EEE 5294	Advanced Microprocessors	4
EEE 5653	Digital Signal Processing	3
EEE 5624	Computer Vision	4

Note: Courses may have prerequisites, which are listed in their course descriptions.

RESEARCH IN THE MSMSE PROGRAM

Mechatronics students participate in research and publish papers in professional and academic journals and in the proceedings of prestigious international conferences. The University maintains collaborative research partnerships with universities in the United Kingdom, Germany, Russia, and Belarus. The Laboratory of Mechatronic Systems provides high-tech equipment for course work and research projects. The unique 4x4 vehicle chassis dynamometer with individual roll control is a valuable component of the mechatronics course curriculum and provides the necessary support for research projects on vehicle driveline systems and control of vehicle performance, including fuel efficiency, mobility, traction and acceleration, and stability of motion.

CERTIFICATE IN AERONAUTICAL ENGINEERING

Aeronautical engineers are in growing demand as air travel becomes faster, safer, and more environmentally friendly. Increased competition in the commercial aircraft industry, new initiatives in space exploration, the evolution of smaller aircraft and airports as alternatives to traditional airline travel, including the expanding market for personal jet aircraft known as very light jets or VLJs, are also fueling this trend. With our world becoming smaller by the day, the aeronautics industry relies on highly skilled aeronautical engineers to help meet the demands of business and pleasure travelers alike. Lawrence Technological University's certificate in aeronautical engineering offers a strong foundation with which to enter the industry, featuring a comprehensive curriculum focused on the fundamentals of aeronautical engineering for aircraft design, analysis, and

testing. Designed for mechanical engineering graduates, the aeronautical engineering program at Lawrence Tech provides students with a deeper understanding of this broad field – beyond what is covered in the mechanical engineering program. Aeronautical engineering not only focuses on the design and fluid dynamic aspects of aerospace vehicles but also on aerodynamics, structural mechanics, control systems, noise and vibrations, and engineering materials.

CERTIFICATE IN AERONAUTICAL ENGINEERING ADMISSION REQUIREMENTS

Admission to the program as a graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission;
2. A BS degree in mechanical engineering (or equivalent) from an ABET-accredited (or equivalent) college or university;
3. Official transcripts of all completed college work;
4. Two letters of recommendation, one from a professor in the student’s undergraduate program and/or from a corporate supervisor.

CERTIFICATE IN AERONAUTICAL ENGINEERING TRANSFER POLICY

No more than six (6) graduate semester credit hours may be transferred, and these must be from an accredited program. Any exceptions to this policy must be approved by the certificate coordinator. A request for transfer courses to be considered must be made in writing at the time of application and must be accompanied by transcripts, course descriptions, and syllabi for each proposed transfer course. For some transfer courses, the certificate coordinator may require the applicant to demonstrate proficiency in the subject through interviews with faculty members who have expertise in the subject.

CERTIFICATE IN AERONAUTICAL ENGINEERING CURRICULUM

The 18-credit-hour (or 12- or 15-credit hour if courses are transferred) Certificate in Aeronautical Engineering will be awarded upon the successful completion of the courses listed below.

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 4163	Aeronautical Engineering Fundamentals	3
EME 4323	Applied Fluid Mechanics	3
EME 5223	Advanced Mechanics of Materials	3

Elective Courses (choose three)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 4243	Finite Element Analysis I	3
EME 4273	Micromechanics of Materials	3
EME 5103	Fasteners and Bolted Joints	3
EME 5133	Advanced Fluid Mechanics	3
MSE 5133	Modern Control in Mechatronics	3
EME 5153	Applied Thermodynamics	3

EME 5173	Transport Phenomena	3
EME 5203	Design of Mechanical Joints	3
EME 5213	Mechanical Vibrations	3
EME 6103	Engineering Materials	3
EME 6113	Fatigue Analysis	3
EME 6133	Viscous Flow	3
EME 6153	Incompressible Flow	3
EME 6213	Fundamentals of Acoustics	3
EME 6253	Turbulence	3
EME 6393	Compressible Flow I	3
EME 6563	Aerodynamics	3
EME 6423	Advanced Dynamics	3
EME 6553	Structural Stability	3
EME 6543	Computational Fluid Dynamics	3

CERTIFICATE IN ELECTRICAL POWER SYSTEMS

This 16-credit-hour certificate program is intended for practicing electrical engineers who wish to change careers from electronics or computers to power systems. The certificate program is open to students who have a BS degree in either electrical or computer engineering or who are currently enrolled in one of these programs at Lawrence Tech. The Certificate in Electrical Power Systems is awarded upon completion of the courses listed below.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EEE 3513	Introduction to Electrical Systems	3
EEE 3511	Introduction to Electrical Systems Lab	1
EEE 4133	Electrical Machinery	3
EEE 4131	Electrical Machinery Lab	1
EEE 5144	Power Distribution Systems Analysis	4
EEE 5314	Power Electronics	4

Current Lawrence Tech MS in Electrical and Computer Engineering students or students who already have an MS degree in electronics or computers from an accredited university can earn the Certificate in Electrical Power System upon completion of the courses listed below (12-credit-hours).

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EEE 5134	Electrical Machinery and Transformers	4
EEE 5144	Power Distribution Systems Analysis	4
EEE 5314	Power Electronics	4

CERTIFICATE IN ENERGY AND ENVIRONMENTAL MANAGEMENT (CEEM)

Energy and the related environmental issues are major cost factors throughout industry. As a result, the demand for energy and environmental managers has risen. In addition, the rapid emergence of global industrial energy demands have promoted the necessity for

advanced education in the field to help energy producers and users maintain sustainable operations. Other energy certificate programs are quite broad but lack the focus on environmental issues that must be considered and the technical depth a university can offer. Lawrence Tech's CEEM addresses this need and provides students the background needed to become a certified energy and environmental manager.

The CEEM is based on successfully completing two 3-credit-hour courses that include multiple "real-world" projects, successful completion of a certification exam, and work experience or training in the energy management and/or environmental management field.

CEEM ADMISSION REQUIREMENTS

Admission to the program as a graduate student requires the demonstration of high potential for success based on the following:

1. Submission of the Application for Graduate Admission;
2. An undergraduate degree in engineering or physical science and/or P.E. with college credit in thermodynamics/thermal systems and upper-level mathematics (i.e., calculus);
3. Official transcripts of all completed college work;
4. A written letter of recommendation from an employer or former professor.

CEEM CURRICULUM

The CEEM is unique from typical certificates in that it requires more than just course work; an experiential component and a certification exam are also required.

The CEEM curriculum requirements are as follows:

- Completion of EGE 5303 and EGE 5323 courses with a minimum grade of B in each.
- Completion of a written assessment/exam with a score of 70 percent or higher (or, at the discretion of the certificate administrators, completion of the EGE 5303 final exam with a grade of "B" or higher).
- Documentation of 300 hours of experiential learning and/or training in the field of energy management and/or environmental management.

The experiential component of the certificate may include work in industry, volunteer work, attendance/participation at workshops and/or seminars, additional course work, etc.

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EGE 5303	Energy and Environmental Management I	3
EGE 5323	Energy and Environmental Management II	3

Note that if a student is also pursuing the Certificate in Energy Engineering (CEE), these two courses can be completed as electives for that curriculum. Students can use the other CEE course requirements to fulfill the CEEM's 300 hours of experiential learning requirement.

CERTIFICATE IN ENERGY ENGINEERING (CEE)

Professionals who hold a BS degree in engineering or the natural sciences (primarily chemistry or physics) are eligible to enroll in the Certificate in Energy Engineering program. The certificate requires the completion of 18 credit hours. The goal of the CEE is to:

- Educate students in energy engineering, including alternative (renewable) energy sources, traditional (fossil fuel) energy sources, nuclear energy, energy management, and conservation.
- Help meet global needs with energy-educated engineers who can address the issues related to energy and the supply and demand balance of global fossil fuel resources and to transition the economy to more environmentally friendly energy systems.

CEE ADMISSION REQUIREMENTS

To be admitted to the Certificate in Energy Engineering requires the applicant to have already earned a BS degree in engineering or to have earned a BS in Chemistry or Physics with an overall GPA of 3.00 or better for their undergraduate degree. Students with related degrees may be admitted to the Certificate in Energy Engineering as long as they meet all course prerequisites. A grade of "B" or better is required in all make-up and prerequisite courses for this program. All students enrolled the Certificate in Energy Engineering core or elective courses must earn a grade of "B" or better in all courses in this program. Any student not complying with minimum grade requirements will prompt a review of that student's academic standing and may result in their dismissal from the program.

The courses offered in this program are all College of Engineering technical electives and can typically be used as technical electives in the pursuit of an undergraduate BS in Mechanical or Electrical Engineering, and most of the 5000 level courses may be used towards a MS in Mechanical Engineering degree.

CEE CURRICULM

The CEE requires the completion of 6 courses (18 credit hours) from the approved list of related courses. Three courses (9 credits) are required core courses and three elective courses (9 credits).

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EGE 3903	Alternative Energy Fundamentals	3
EME 5153	Applied Thermodynamics	3
EME 5263	Energy Resources and Technologies	3

Electives (choose three)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 4363	Thermal Fluid System Design	3
EME 5193	Solar and Wind Energy Generation Systems	3
EME 5163/6163	Fuel Cells and Hydrogen	3

EME 5283	Elements of Nuclear Engineering	3
EGE 5303	Energy and Environmental Management 1	3
EGE 5323	Energy and Environmental Management 2	3
EME 5273	Heat Pipes	3
EME 5293	Fusion Engineering	3
EME 5313	Biofuels and Biomass Energy Engineering	3

CERTIFICATE IN MANUFACTURING SYSTEMS (CMS)

Lawrence Tech's 15-credit-hour Certificate in Manufacturing Systems (CMS) is offered in response to a need for this knowledge that exists in small- and medium-sized manufacturing enterprises. Topics of study include:

- Manufacturing processes and their capabilities and limitations;
- Manufacturing systems and how well they are suited for flexibility and productivity;
- The importance of computers in manufacturing enterprises, from the design stage to the manufacturing stage;
- Global competitiveness and the need to productively manufacture products;
- Effective leadership and management.

CMS ADMISSION REQUIREMENTS

Admission into the Certificate in Manufacturing Systems program requires:

1. Submission of the Application for Graduate Admission;
2. A bachelor of science degree in engineering or a related field (minimum 2.8 GPA);
3. Official transcripts of all completed college work;
4. Two letters of recommendation from supervisors;
5. A resume, including professional experience and extracurricular activities.

CMS CURRICULUM

The 15-credit-hour Certificate in Manufacturing Systems will be awarded upon the successful completion of the courses listed below.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
EME 5603	Engineering Systems Simulation	3
EME 6203	Manufacturing Processes	3
EME 6503	Manufacturing Productivity	3
EME 6703	Manufacturing Systems	3
EME 6803	Engineering Management	3

CERTIFICATE IN MANUFACTURING SYSTEMS FOR THE DEFENSE INDUSTRY (CMS-DEFENSE)

Lawrence Tech's 15-credit-hour Certificate in Manufacturing Systems for the Defense Industry was designed for displaced automotive engineers who wish to retool to work within the growing defense sector. Topics of study include the development of contracts for the Department of Defense, federal procurement, acquisition, contract laws and regulations, ethics, logistics, defense engineering systems modeling and simulation, and

project management principles and practices. The program is designed to be completed in two semesters. The certificate's credits are transferrable to the Master of Engineering in Manufacturing Systems, which can be earned with an additional 15 credits.

CMS-DEFENSE ADMISSION REQUIREMENTS

Admission to the Certificate in Manufacturing Systems for the Defense Industry program requires:

1. Submission of the Application for Graduate Admission;
2. A bachelor of science degree in engineering or a related field (minimum 3.0 GPA);
3. Official transcripts of all completed college work;
4. Two letters of recommendation from supervisors;
5. A resume including professional experiences and extracurricular activities.

CMS-DEFENSE CURRICULUM

The 15-credit-hour Certificate in Manufacturing Systems for the Defense Industry will be awarded upon the successful completion of the courses listed below.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
EME5503	Fundamentals of Acquisition, Contracting, and Logistics in Defense Industry	3
EME5603	Engineering Systems Simulation (Defense Systems)	3
EME 6503	Manufacturing Productivity for Defense	3
EME 6703	Manufacturing Systems for Defense	3
EME6803	Engineering Management	3

CERTIFICATE IN TELECOMMUNICATIONS ENGINEERING (CTE)

This certificate program is intended for those who wish to pursue a career or advance their career in the telecommunications industry. The certificate program is open to students who have a bachelor degree in electrical engineering, computer engineering, computer science, or a closely related field.

CTE ADMISSION REQUIREMENTS

Admission to the Certificate in Telecommunications Engineering requires:

1. Submission of the Application for Graduate Admission;
2. A bachelor of science degree in electrical engineering, computer engineering, computer science, or a closely related from an accredited university (minimum 3.0 GPA);
3. Official transcripts of all completed college work;
4. Two letters of recommendation from supervisors;
5. A resume including professional experiences and extracurricular activities.

Current Lawrence Tech Master of Science in Electrical and Computer Engineering students can earn the certificate by taking any three (12 credit hours) of the above courses.

CTE CURRICULUM

Students must choose four courses (16 credit hours) from the following list to earn the certificate.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
EEE 5444	Digital Communications	4
EEE 5654	Digital Signal Processing	4
EEE5784	Communication Circuits	4
EEE 6444	Software Defined Radio	4
EEE 6784	Advanced Communication Theory	4

College of Management

Dean

Louis A. DeGennaro
M331, 248.204.3050

Assistant Dean

Chinling Lin
M331, 248.204.3073

Professors

Louis A. DeGennaro
Vernon R. Hoffner
Leland A. Lahr, emeritus
A. Lerine Steenkamp

Associate Professors

Patricia A. Castelli
Peter Chang
Barbara A. Kouskoulas, emeritus
Srikant Raghavan
Jacqueline M. Stavros

College Professors

David Allardice
Jamie Hsu
Robert Inskeep
Thomas Marx
S. Alan McCord
Nadia Shuayto

Senior Lecturers

Jerry Lindman

Adjunct Faculty

Additional lecturers are assigned to selected courses and sections based on their particular specialties and expertise and are listed in the faculty roster.

Faculty Council

Peter Chang, chair
Timothy Landon
Nadia Shuayto

Global Advisory Board

Naren Balasubramaniam
advisor, Global Crosswalk Inc.

Fadi Baradihi
chief operating officer, Hantz Group

Richard Blouse
president emeritus, Detroit Regional Chamber

Maha Freij
deputy executive director and chief financial officer, ACCESS

Donald James
marketing director, Continental, AG

Alessandra Konopczyk
operations manager, Sigma International

Bernd Matthes
President, Automotive Strategy Consultants

Heike Matthes
President, Matthes Consulting

Shotaro Nakahama
executive director, Japan Business Society of Detroit

Noel Nevshehir
director of international business services, Automation Alley

John O’Gara
regional manager, Office of International Trade, U.S. Small Business Administration

Ann Paprocki
executive director, Polish American Chamber of Commerce - Michigan

Gladson Remos
vice president, Melt Design, Inc.

Michael A. Rinkus
senior vice president, International Trade Services, Comerica Bank

Clarence Rivette
managing partner, WIRT Financial and Leasing Services

Guillermo Roque
internal audit professional, Jefferson Wells

Edna C. Stephens
president, EDCO Publishing, Inc.

Marwan Taleb
special deputy, Wayne County Sheriff’s Department

ShiaoFong Yin
President, Mobius Manufacturing Solutions

DEGREE PROGRAMS OFFERED

Lawrence Tech’s College of Management offers these graduate programs:

Doctor of Business Administration
Doctor of Management in Information Technology

Master of Business Administration
Master of Business Administration/Global Leadership and Management Dual Degree

Master of Business Administration/Master of Science in Global Operations and Project Management Dual Degree
Master of Business Administration/Master of Science in Information Systems Dual Degree
Master of Business Administration International
Master of Science in Global Operations and Project Management
Master of Science in Information Systems

Certificate in Information Assurance Management
Certificate in Nonprofit Management and Leadership
Certificate in Project Management

Lawrence Tech's College of Management is committed to advancing a more humane and sustainable world community led by global thinkers and global leaders and providing students with the knowledge and skills required to successfully compete in a global economy. The College endeavors to:

1. Offer graduate students an appreciation of contemporary issues, challenges, and opportunities facing the management community; and
2. Provide an in-depth understanding of the processes, systems, and operations of profit and not-for-profit organizations.

In doing so, the graduate programs of the College of Management are designed to offer students the concepts, skills, and knowledge needed to function effectively in technical, administrative, and managerial positions, including abilities that not only assist in securing employment but lead to steady progress within the organization.

It is the college's goal to develop and enhance leadership capabilities in graduates while instilling in them the importance of education as a life-long process that leads to professional achievement and personal satisfaction. The college recognizes that today's manager faces challenges from strong and growing global economic forces, conflicting values, changing technology in products and processes, and demographic diversity among employees and customers. Therefore, the college is concerned with students' intellectual and cultural growth as well as their educational progress in administrative fields of study.

It is the College of Management's intent to provide a quality learning environment that is rooted in the tradition of teaching and scholarship based on relevant "real world" situations. More than ever, organizations find themselves operating in a highly competitive and ever-changing social, political, and economic/technological environment. Continued pressures on profit margins, fewer people responsible for maintaining work schedules, relentless global competition, and the pace of technological innovation are but four challenges facing many organizations today. Establishing long-term objectives and articulating innovative, highly targeted strategies for success are skills which every contemporary manager and leader must possess.

The Lawrence Tech College of Management's graduate programs are designed to enable the student to develop and demonstrate proficiency in these personal and organizational

strategies. The seminar-style format utilized at Lawrence Tech allows an open dialogue between the teaching professionals and the predominantly working students. Faculty understand the conflicting demands of balancing academic preparedness, family needs, and full-time employment. This understanding leads to the use of relevant case studies, simulations/class exercises, and guest speakers who can add a greater dimension of expertise to the course materials.

Perhaps the strongest competitive advantage of the Lawrence Tech graduate business programs is the focus on the melding of theory and practice with the global curriculum integrated throughout all programs. The graduate candidate need look no further than Lawrence Tech to find a highly motivated faculty discussing accounting, marketing, or management challenges with students who average six years of business experience and will accept nothing less than the best. In addition to the faculty's continued commitment to excellence and their focus on real-world situations, the graduating student survey gave high marks to small class sizes (leading to frequent student-faculty interaction) and unique approaches to problem-solving and team-building as primary reasons to seek a College of Management master's degree at Lawrence Tech.

ACCREDITATION

The College of Management is accredited by the Association of Collegiate Business Schools and Programs (ACBSP) and the International Assembly of Collegiate Business Education (IACBE).

OFF-CAMPUS PROGRAMS

The College of Management's vision is: "To be recognized in the region as the innovative leader in the design and delivery of distinctive management programs for professionals." Consistent with this vision, the College of Management offers programs in many locations and in many formats. In addition to offering classes at the Southfield campus, programs are offered at three education centers in the metropolitan Detroit area and also in Northern Michigan. International programs are offered in Toronto, Vancouver, and soon in China. Hybrid and online classes are offered to complement traditional classroom instruction.

COLLEGE TECHNOLOGY SERVICES

Although the University has on-campus labs available for all students to utilize, the College of Management created and maintains a technology lab exclusively for its undergraduate and graduate students. This lab is housed in room M215 of the Buell Management Building and offers high-end hardware and program-specific software applications. Students are also provided with printing accounts that allow them to use the networked printers at no cost. Additional print cards can be purchased at the Lawrence Tech bookstore by students who have printing needs beyond the normal classroom requirements.

The College of Management provides a wide range of information technology (IT) services to its students, faculty, and staff, including academic software evaluation and implementation, instructional technology services, video services, and mentoring.

ADMISSION REQUIREMENTS

Unless indicated elsewhere, applicants to the College of Management graduate degree programs are expected to be either working or have work experience. Applicants must meet one of the following criteria:

- Have earned a baccalaureate degree with a GPA of 3.0 or higher from regionally accredited institutions;
- Have earned a baccalaureate degree from a regionally accredited undergraduate program and present an acceptable GMAT score;
- Have earned a master's degree from a regionally accredited institution.

Specially admitted students are allowed to take up to six (6) semester hours and are required to meet a certain performance level to remain in the program.

TRANSFER POLICY (NON-SPECIALTY PROGRAMS)

A petition for transfer of credits should be initiated by the student in the form of a letter addressed to dean, College of Management, prior to the completion of the first semester of the graduate program. Up to 12 semester credits are generally accepted by Lawrence Tech's College of Management for the MBA program, and up to nine (9) semester credits for other master's programs. These courses must be graduate-level courses taken at an accredited college or university. Each course generally must have been taken within seven (7) years of application for admission. Transfer students should apply for admission through the Office of Admissions. A grade of 3.0 or better must have been earned. Grades of "passed/not passed," "pass/fail," or "pass/no entry" are not acceptable.

Students may be required to submit additional evidence (e.g., course syllabi, catalog descriptions, and tests/examinations) in order to justify the transfer of credits. The Graduate Admissions Committee may require the applicant to demonstrate proficiency in the subject either through an interview or written examination prepared by faculty members who have expertise in the subject/discipline.

CURRICULUM DELIVERY

Consistent with its mission and values, the College of Management is committed to providing appropriate instructional methods to fit the needs of its students while maximizing student learning. As a result, the college has developed three course-delivery formats:

- **Traditional courses** are courses taught exclusively in the classroom. The semester includes 13 weeks of classroom instruction plus a one-week final exam period. Traditional courses are offered on the Southfield campus and at some of Lawrence Tech's education centers and are usually held on weekday evenings or Saturdays.
- **Hybrid courses** are courses in which approximately half of the learning activities have been moved online, and time traditionally spent in the classroom is reduced but not eliminated. The goal of hybrid courses is to merge the best features of in-class teaching with the best features of online learning to promote active independent learning and reduce class seat time. Hybrid courses are offered at both the Southfield and education centers.

- **Online courses** are courses in which all of the learning activities have been moved online, replacing classroom time entirely. Online courses are designed to take advantage of the best online teaching methods with course content that can be effectively taught in an online environment. These courses provide maximum flexibility for students with challenging work and personal schedules. With permission of the office of the dean, all students may enroll in online courses to meet their graduation requirements.

DOCTOR OF BUSINESS ADMINISTRATION (DBA)

The Doctor of Business Administration at Lawrence Tech is an intensive part-time program that is designed to strengthen leaders who can think strategically and act decisively in today's global business environment. Graduates are expected to have obtained the skills required to act decisively in meeting the needs of a rapidly changing society. The program also aims to enhance students' abilities to further their careers as innovators in business. These skills are essential for successful business leaders as it becomes critical to employ leaders with a sense of social responsibility and integrity with ever-increasing sophistication in every facet of organizational life.

As a practitioner-scholar program, Lawrence Tech's DBA aims to provide thorough preparation in both the theory and practice of the latest strategic leadership and change management ideas. Graduates will have the preparation to excel in significant roles as leaders in the world's global work force. Graduates will also be provided with the breadth and depth of business administration disciplines required for success in university teaching.

DBA ADMISSIONS REQUIREMENTS

Admission to the program is competitive and the attainment of a specific set of minimum qualifications does not assure admission. Instead, admission is granted to the candidates deemed to be most qualified to achieve success. In general, applicants must:

- Hold a Master of Business Administration or equivalent master's degree in business from an accredited college or university with a GPA of 3.3 or higher. Applicants with an out-of-field master's degree will be required to complete the prerequisite foundation course work before starting the DBA program.
- Submit official transcripts of all previous college or university work in envelopes sealed by the granting institutions.
- Take the GMAT or GRE. The GMAT or GRE requirement may be waived upon petition to the Office of the Dean and the DBA program chair. The petition must include a portfolio that demonstrates the student's exemplary professional work experience and evidence of scholarship (written work or presentations) or contributions to their field of expertise.
- Have five years or more experience in managerial positions in corporate, governmental, or nonprofit organizations. This requirement does not apply to applicants who are acquiring the DBA degree to teach or work in an academic institution.
- Take TOEFL or IELTS if English is not the applicant's native language. The minimum acceptable performance is 550 on the written TOEFL, 250 on the

computerized version, or 79 on the Internet TOEFL. The minimum acceptable IELTS score is 7.0. The TOEFL/IELTS requirement may be waived for those international students who have completed their degrees at an accredited U.S. university.

- Provide a professional resume or CV.
- Provide three professional letters of recommendation.
- Provide a statement (1,000 words or less) addressing the applicant’s career objectives and professional and personal reasons for pursuing a DBA degree; the applicant’s primary academic and research interests; qualifications for completing a doctoral program; and the reasons for selecting Lawrence Technological University.
- Must complete the Application for Doctoral Admission and a personal interview with the DBA program chair and members of the DBA faculty.

Students who have exceptional merit in one of the above criteria but do not meet all admission criteria may be admitted under special circumstances determined by the Graduate Admissions Committee. Students who meet the admission requirements, but where supporting documentation, such as academic transcripts, is still pending, may be admitted conditionally.

DBA DEGREE REQUIREMENTS/CURRICULUM

The curriculum consists of 36 hours of course work and 24 equivalent hours of research toward a doctoral dissertation and can be completed within four years. Course work falls into two categories: the DBA core and research methods. Research toward a dissertation will be conducted on a topic within the following areas:

1. Leadership and Organization Development
2. Business Economics and Finance
3. International Business

Course work in the DBA program is offered in the following three areas:

Core Courses: 24 credit hours

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
DBA 8013	Leading the Global Enterprise	3
DBA 8023	Globalization: Institutions, Strategies, and Structures	3
DBA 8043	Global Marketing: Research and Practice	3
DBA 8053	Financial Analysis and Management	3
DBA 8063	Creating Value with Technology and Innovation	3
DBA 8073	Organization Development, Transformation, and Change	3
DBA 8083	Advanced Topics in Business Administration	3
DBA 8093	Organizational Behavior	3

Research Methodologies: 12 credit hours

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
RES 7013	Overview of Doctoral Research Methodology	3
RES 7023	Research Design – Qualitative Methods	3
RES 7033	Research Design – Quantitative Methods	3
RES 7043	Advanced Topics in Research Methodology	3

Dissertation: 24 credit hours**DBA COMPREHENSIVE EXAMS**

A student must demonstrate competence in the core research fields by the successful completion of written comprehensive examinations. All course work in both fields must have been completed before taking the comprehensive examination. A student is eligible for the comprehensive written examination if he or she has completed:

- All core courses, maintaining a cumulative GPA of 3.0
- All course work in research methodologies

DBA DISSERTATION

Each DBA candidate must complete a dissertation based on a dissertation proposal. The dissertation proposal must present a plan for research work on an appropriate applied research topic with the rigor and sophistication expected of doctoral-level work. The student must register for the Dissertation Proposal course (3 credit hours). The proposal must be submitted for acceptance to the student's dissertation committee. The research should demonstrate innovation and apply state-of-the-art theory and principles in the chosen field to real-world problems with present and future interest. The dissertation committee consists of a chair, who must be a full-time Lawrence Tech faculty member, a second Lawrence Tech faculty member, and an external member, preferably from an organization where the research can be applied.

DBA RESIDENCY REQUIREMENTS

General residency requirements for students enrolled in the DBA program include:

1. Registration and successful completion of a minimum of 12 hours of course work in the 12-month period prior to the completion of the comprehensive examinations;
2. Enrollment for at least 12 hours every year;
3. Successful completion of all course work, comprehensive examinations, and the dissertation defense within a maximum of seven (7) years after commencing the program; and
4. Forty-five (45) graduate hours in residence, including dissertation.

STEPS IN THE DBA PROGRAM

1. Complete 36 hours of course work
2. Pass comprehensive examinations
3. Dissertation
 - Register for Dissertation Proposal course
 - Submit research proposal to chair of dissertation committee

- Complete dissertation
- Defend dissertation
- Apply for graduation

DOCTOR OF MANAGEMENT IN INFORMATION TECHNOLOGY (DMIT)

The Doctor of Management in Information Technology at Lawrence Technological University is an intensive part-time program designed to provide advanced education for leaders in the information technology (IT) industry. The curriculum represents the integration of business practice with scholarship and emphasizes rigorous analytical skills and in-depth managerial and technical knowledge. The program seeks to prepare students for careers as problem solvers and innovators in the IT arena by providing thorough preparation in both the theory and practice of acquiring and managing IT resources in the enterprise. Graduates of the program will be at the center of an information-based society that is employing IT with ever-increasing sophistication in every facet of life. The DMIT program aims to prepare them to assume significant roles in the world's rapidly growing high technology workforce.

DMIT ADMISSIONS REQUIREMENTS

Admission to the program is competitive and the attainment of a specific set of minimum qualifications does not assure admission. Instead, admission is granted to the candidates deemed to be most qualified to achieve success. In general, applicants must:

- Submit the Application for Doctoral Admission;
- Hold a master's degree or equivalent in an IT field of study from an accredited college or university with a GPA of 3.3 or higher. A student with an out-of-field master's degree will be required to complete course work to meet the IT foundation requirements and other prerequisite course work as relevant to the student's background before starting the DMIT program;
- Have at least five (5) years of experience in an appropriate technical or managerial position in a corporate, governmental, or nonprofit organization;
- Students whose native language is not English are required to take the TOEFL or IELTS and TSE. The minimum acceptable score on the written TOEFL is 550, or 250 on the computerized version. The minimum acceptable IELTS score is 7.0. The minimum acceptable TSE score is 74 percent. The TOEFL/IELTS requirement is waived for those international students who have completed degrees at a recognized U.S. university;
- Provide three appropriate letters of recommendation;
- Provide a handwritten statement indicating the applicant's reasons for applying to the DMIT program at Lawrence Tech, main academic interest, strengths and limitations, and any other relevant motivation;
- Take the GMAT/GRE for purposes of benchmarking and academic advising with the application package.

Students who have exceptional merit in one of the above criteria but do not meet all other admission criteria may be admitted under special circumstances determined by the DMIT Program Committee. Students who meet the admission requirements, but where

supporting documentation, such as the official academic transcripts, is still pending, may be admitted conditionally.

DMIT FOUNDATION COURSES

Students entering the DMIT program must have already taken courses in the areas fundamental to succeeding in graduate course work in the management of information technology. Foundation course work includes an integrative cross-section of information technologies and business administration fields, such as database technology, software development methodologies and technologies, systems architectures, data communication, and network infrastructure. Foundation courses in quantitative methods, as well as introductory courses in business and management, are also required. Students without this background will be advised to take courses as determined at the time of application.

Guidelines regarding the foundation courses are as follows:

1. Waivers for courses in IT, quantitative methods, and foundations of business and management can be made for:
 - Courses taken at accredited (or equivalent) schools with a B grade or better.
 - Courses taken at non-accredited schools, to be evaluated on an individual basis.
2. Students must achieve a GPA of at least 3.25 in IT foundation courses taken at accredited (or equivalent) schools. Substitute courses may be used to complete the GPA.
3. Based on an applicant's background, foundation courses may be taken after the applicant is admitted into the DMIT program only if the prerequisites of the curriculum are observed when registering for major and research methods courses.
4. A candidate must demonstrate competence in the IT foundation through successful completion of a Diagnostic Evaluation Interview with members of the DMIT Program Committee.

DMIT PROGRAM DESIGN

The DMIT program endorses learning outcomes in four categories:

1. Theory – define the concepts and principles in the field of IT management that a student should master.
2. Information – interpreted to mean the leading-edge trends in IT that a student should be aware of.
3. Skill sets – leadership, managerial, and technical competencies that students should have upon completing the program.
4. Informed practice – knowledge and awareness of best practices as found in business and industry in the field of IT management.

In addition, the program addresses six thematic areas of scholarship and practice, namely:

1. Abstraction and modeling – understanding/representing a problem in a domain of study.
2. Process improvement – focus on business and IT process viewpoints.
3. Alignment – aligning IT strategy with the enterprise strategy.

4. Quality – IT and software product and process quality assurance.
5. Measurement – management of process performance in terms of metrics.
6. Enterprise Architecture – design well-architected solutions that enhance business agility.

DMIT CURRICULUM

The curriculum is described below in terms of the course work phase and the dissertation research phase. Upon completing the course work and comprehensive examination or qualifying paper, the student is given doctoral student candidacy and permission to start the dissertation research. The 12 courses comprising the course work are offered in three tracks:

1. DMIT Core Courses
2. Shared Doctoral Courses (offered with the DBA Program)
3. Research Methods

Major track courses focus on the body of knowledge of IT management, dealing with the management and technical perspectives of IT processes within the context of the business processes of the enterprise, IT resources, and the managerial and technical competencies required to provide leadership for IT initiatives within the enterprise.

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MIS 8013	Enterprise IT Life Cycle Processes	3
MIS 8023	Global Enterprise Data Management	3
MIS 8043	Global Enterprise Architecture	3
MIS 8053	Advanced Topics Course Topics in IT	3

Shared Doctoral Courses

Courses in this track address the themes of globalization and leadership, and how they impact the research and practice within the course domains. Students may petition to replace a course in this track by an alternative doctoral course.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
DBA 8013	Leading the Global Enterprise	3
DBA 8033	Globalization and the World Economy	3
DBA 8063	Creating Value with Technology and Innovation	3
DBA 8073	Organization Development, Transformation, and Change	3

Research Methods

Research methods course work is designed to provide students with a mastery of research philosophy, design, and methodology and covers methods and techniques relevant to the managerial and technical IT life cycle processes. The courses are at the graduate level and include methods, techniques, notations, and computer-based tools for performing information technology research, development, and implementation.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
RES 7013	Overview of Doctoral Research Methodology	3
RES 7023	Research Design – Qualitative Methods	3
RES 7033	Research Design – Quantitative Methods	3
RES 7043	Advanced Topics in Research Methodology	3

DMIT COMPREHENSIVE EXAMS

A student must demonstrate competence in the DMIT and research methods fields by successfully completing a comprehensive, written examination for each track. This examination may take the form of a research paper. All course work in a track must be completed before the student is eligible to take the comprehensive examination in the track.

DMIT DISSERTATION (Research Phase, 24 credit hours)

Each candidate must complete a dissertation based on a dissertation proposal, which is prepared under the supervision of the dissertation supervisor, who is the chair of the student's dissertation committee. The dissertation proposal must present a plan for research work on an appropriate applied research topic with the rigor and sophistication expected of doctoral-level work. The proposal must be submitted to the student's dissertation committee for review, and the student must defend it in a formal proposal defense session. The research should demonstrate innovation and apply state-of-the-art theory and principles in the chosen field to real-world problems with present and future interest.

DMIT RESIDENCY REQUIREMENTS

General residency requirements for students enrolled in the program include:

1. Registration for a minimum of 12 hours of course work in every academic year.
2. Successful completion of all course work and comprehensive examinations within a maximum of 60 months after commencing the program.
3. Registration for 45 DMIT credits, which include dissertation credits.

STEPS IN THE DMIT PROGRAM

Complete 36 credit hours of course work

Apply and pass comprehensive examinations

Dissertation research:

Register for the Dissertation Proposal course

Submit research proposal to dissertation committee

Register for the dissertation credit hours as determined with the dissertation chair

Perform research

Write dissertation

Defend dissertation

Apply for graduation

MASTER OF BUSINESS ADMINISTRATION (MBA)

The Master of Business Administration was first introduced into university curriculums at the turn of the 20th century and underwent a major restructuring in the late 1940s and

1950s. Today, enrollment in MBA programs has exponentially increased as the degree has become a necessary credential for those wishing to hone and enhance their managerial leadership skills and compete in a global society. The intent of the “traditional” MBA program, often found in business schools, is to provide the business community with a degree-holder who has been exposed to a body of knowledge that in time may be applied to actual situations. The emphasis is on “in time,” a luxury, which in a global society, employers no longer have.

In contrast, Lawrence Tech’s MBA is performance driven and links knowledge to organizational activities by melding theory with practice. The intent of Lawrence Tech’s Master of Business Administration program, offered through its College of Management, is to develop leadership and management skills by providing the student with a broad understanding of the roles and responsibilities of business management, thereby enhancing the graduate’s effectiveness as a manager and leader. The learning is active, replacing the “read, look, listen, and take an exam” approach found in traditional MBA programs. The program is further designed to develop the student’s skills in areas such as problem solving, communication, and team building and helps students develop a cross-disciplinary approach to managing the organization.

Lawrence Tech’s 36-credit MBA program consists of nine (9) core classes and three (3) electives. Students can select one of four areas of concentration to help expand their experiences and meet future goals: Finance, Global Leadership and Management, Nonprofit Management, and Project Management. The MBA can be obtained in as few as two years of evening and/or weekend study.

MBA PROGRAM DESIGN

Lawrence Tech’s MBA program is based on the philosophy that graduate-level studies should incorporate both theoretical and empirical content that demonstrates a broad understanding of the skills and knowledge necessary to achieve personal and organizational success and growth. The course Leadership and Leadership Development is designed to provide an opportunity for the student (both individually and in teams) to demonstrate a comprehension of real-world problems and issues. Solutions requiring interpersonal skills and decision support systems are used to highlight contemporary organizational issues. Students are encouraged to take Leadership and Leadership Development at the start of their program.

Foundation courses may be required of students who have not taken undergraduate course work in business or who do not have substantial relevant work experience. Waivers from the foundation courses are generally granted at the time of admission to the MBA program. The essential foundations of accounting, finance, statistics, legal environment, and economics are covered in these courses. Foundation classes may be taken concurrently with those core classes that require no prerequisites.

Core courses are designed to provide students with meaningful experiences in analyzing and implementing operational concepts and programs as well as leading directly to the

selections of appropriate elective courses. Strategic Management is considered the “capstone” course and should only be scheduled near the end of the student’s program.

Elective courses are offered in the areas of nonprofit management, global leadership and management, international business, information systems, operations management, project management, finance, and ethics. The option to take a directed study from a qualified faculty member provides an opportunity to tailor an individual program to meet the particular needs of students and employers.

MBA DEGREE REQUIREMENTS

Successful completion of the 36-credit-hour MBA program requires:

- Nine (9) core courses and three (3) electives, with at least 24 graduate credit hours taken at Lawrence Tech;
- Completion (or waiver) of all foundation courses;
- Overall GPA of at least 3.0 in core/elective program areas;
- Completion of the above requirements within seven (7) years of program entry.

MBA CURRICULUM

Foundation Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ACC 5003	Financial Accounting and Financial Statements	3
FIN 5012	Business Economics	2
MGT 5012	Business Applications of Statistical Analysis	2
MGT 5032	Business Law	2

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MGT 6013	Leadership and Leadership Development	3
ACC 6013	Management Control Systems	3
GLM6113	Logistics, Global Operations, and Supply Chain Management	3
FIN 6013	Acquiring and Managing Financial Capital	3
HRM 6023	Human Resource Management	3
MGT 6053	Perspectives in International Business	3
MIS 6013	Information Systems and the Enterprise	3
MKT 6013	Marketing Management	3
MGT 6063	Strategic Management (capstone)	3

Electives

Concentration: Finance

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
FIN 6023	Advanced Financial Management	3
FIN 7013	Financial Markets and Institutions	3
FIN 7023	Investment Management	3
FIN 6113	International Financial Management	3

Concentration: Global Leadership and Management

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
GLM 6033	Global Organization Development and Change	3
GLM 6043	Understanding Management in a Global Society	3
GLM 6073	Global Business Planning and Strategy	3
GLM 6163	International Financial Systems and Investments	3

Concentration: Nonprofit Management

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MGT 6073	Strategic Nonprofit Management	3
MGT 6083	Comprehensive Fund Development	3
MGT 6033	Leading Change and Building Capacity for Nonprofits	3

Concentration: Project Management

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
HRM 6133	Managing the Project Organization	3
MGT 6153	Project Management	3
MGT 6213	Directed Study/Project Management	3
MGT 6223	Project Risk and Project Quality Management	3

MASTER OF BUSINESS ADMINISTRATION INTERNATIONAL (MBAI)

Lawrence Tech's MBA International is a global management program designed for professionals who work or aspire to work in organizations that operate across national boundaries. The MBAI is a 36-credit-hour program designed to help students develop management skills by emphasizing learning through reflection, which connects classroom learning to what they have learned in the workplace. The program emphasizes the global perspectives critical for successful managers in a world economy. Applicants to the program are expected to have a significant working knowledge of business functions. This knowledge can come from prior course work and/or substantial work experience in a functional business area. Students who do not meet this expectation can satisfy their foundation requirements by taking foundation course work online or on campus while taking their core courses.

MBAI DEGREE REQUIREMENTS**Foundation Courses**

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
ACC 5003	Financial Accounting and Financial Statements	3
FIN 5012	Business Economics	2
MGT 5012	Business Applications of Statistical Analysis	2
MGT 5032	Business Law	2

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
GLM 6013	Global Leadership for the 21st Century	3
ACC 6013	Management Control Systems	3
MKT 6013	Marketing Management	3
MIS 6013	Information Systems and the Enterprise	3
FIN 6013	Acquiring and Managing Financial Capital	3
GLM 6023	Globalization and the New Economy	3
GLM 6033	Global Organization Development and Change	3
GLM 6073	Global Business Planning and Strategy	3
GLM 6113	Logistics, Global Operations, and Supply Chain Management	3

Electives

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
GLM 6053	Managing Technology and Innovation in a Global Society	3
GLM 6063	Managing a Global Workforce	3
GLM 6123	International Law	3
GLM 6163	International Financial Systems and Investments	3
GLM6213	Independent/Directed Study	3
GLM 6303	Design of New Products, Processes, and Systems	3
GLM 6343	Creating Business Sustainability	3
GLM 6353	International Marketing Management	3

MASTER OF SCIENCE IN GLOBAL OPERATIONS AND PROJECT MANAGEMENT (MSGOPM)

The Master of Science in Global Operations and Project Management (MSGOPM) leverages the innovative knowledge base of Lawrence Tech's Center for Sustainability with the College of Management's Center for Global Leadership and Understanding, giving students an understanding of global operations and project management along with cutting-edge course work that focuses on sustainable business practices that protect people, resources, and profits.

The MSGOPM aims to prepare students to meet changing global realities. Students

- develop both operations and project management skills to stand out from the competition;
- explore sustainable and global business practices in growth industries, such as defense, information technology, and new product development;
- acquire a foundation for project management certification (PMP); and
- focus on how business processes and systems are designed, developed, and implemented in a sustainable environment.

MSGOPM CURRICULUM

Foundation Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
MGT 5012	Business Applications of Statistical Analysis	2
ACC 5013	Accounting for Decision Making	3

Core (21 credit hours)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
GLM 6053	Managing Technology and Innovation in a Global Society	3
GLM 6113	Logistics, Global Operations, and Supply Chain Management	3
MGT 6153	Project Management	3
MGT 6223	Project Risk and Project Quality Management	3
GLM 6303	Design of New Products, Processes, and Systems	3
GLM 6343	Creating Business Sustainability	3
GLM 6403	Design of New Products, Processes, and Systems–Practicum	3

Electives (9 credit hours)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs</i>
GLM 6013	Global Leadership for the 21st Century	3
GLM 6063	Managing a Global Workforce	3
OPM 6123	Quality Control Techniques	3
HRM 6133	Managing the Project Organization	3
OPM 6143	Entrepreneurship and New Venture Management	3
OPM 6153	Procurement and Management of Sources	3
MIS 6253	Managing Outsourced Projects	3

Note: Electives from any graduate program may be chosen after consultation with an academic advisor.

MASTER OF SCIENCE IN INFORMATION SYSTEMS (MSIS)

The Lawrence Tech Graduate Council and Deans' Council approved enhancements to the College of Management's Master of Science in Information Systems curriculum in the Fall 2009 semester. MSIS students admitted to the MSIS program prior to that semester have the option of remaining with the prior MSIS curriculum structure or choosing to work with the new structure. An MSIS advisor can help with this decision.

The Master of Science in Information Systems aims to provide students with skills and knowledge in the management of enterprise information systems. The program explores the “context” in which information systems operate while examining how information systems are designed and how they can successfully be implemented and operated to deliver business value. It is unique in its three-part focus on the development of managerial skills, technical expertise, and an understanding of standards and practices.

Structure of the MSIS Program

The MSIS program gives students the chance to customize their degree to meet their individual professional and academic goals. The MSIS consists of 30 credit hours of course work, including 7 cores courses (21 credit hours) and 3 elective courses (9 credit hours). Each course is delivered by way of workshops, seminars, exercises, case analyses, and other forms of interactive learning. At the end of each course students submit a “reflection” paper that summarizes how the different learning methods affect their understanding of their professional and academic experiences.

The MSIS can be completed in two years by taking two classes each semester. The flexible schedule offers courses in the evenings and on Saturday mornings, and some courses are available fully online.

MSIS DEGREE REQUIREMENTS

Successful completion of the MSIS program requires:

- 21 credit hours of core courses and 9 credit hours in a concentration;
- Completion or waiver of all necessary foundation courses;
- An overall GPA of at least 3.0 in core and elective program areas; and
- Completion of the above requirements within seven (7) years of program entry.

MSIS CURRICULUM

Students without an IT background must take foundation course work in statistical methods, programming, and management information systems. Students who lack relevant business experience must take the Foundations of Business course.

Foundation Courses (up to 8 credit hours, may be waived by advisor)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MGT 5012	Business Applications of Statistical Analysis	3
MIS 5023	Modern Business Application Programming	3
MIS 6013	Information Systems and the Enterprise	3

Core Courses (21 credit hours)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
HRM 6033 or	Leading Organizational Change or	3
MGT 6013	Leadership and Leadership Development	
MIS 6113	Database and Enterprise Models	3
MIS 6123	Analysis and Design of Complex Systems	3
MIS 6143	IT Infrastructure	3
MGT 6153	Project Management	3
MIS 6163	Business for IT Professionals (may be substituted with MIS 7643 Enterprise Integration with advisor approval)	3
MIS 7593 or	Managing Information Technology or	3
MIS 6543	Master's Thesis	

Specialization Courses (9 credit hours)

These courses can be tailored to meet the student's field of interest, subject to advisor approval.

DUAL DEGREE PROGRAM

Today, more than ever before, employers continue to look for creative, innovative individuals who demonstrate an ability to combine superb technical skills with the interpersonal skills needed to lead, manage, and inspire a 21st-century workforce. To address this growing need, Lawrence Tech has developed a unique dual degree program that combines the technical skill development of a specialty master's degree with the leadership competence gained through the MBA degree. Students enrolled in this program will receive two master's degrees, one in their field of expertise or specialty and the other in management (MBA), with one set of curricular requirements.

DUAL DEGREE PROGRAM DESIGN

Lawrence Tech's dual degree program is distinctively designed to enhance opportunities for the personal and professional growth of tomorrow's leaders and provides qualified students with course work most suited to their career paths. Students in the dual degree program will take a tailored core of course work in both the University's MBA program and one of its master's degree programs in Global Leadership and Management, Information Systems, Engineering Management, or Architecture. Upon completion of the course work in both programs, a student will be awarded an MBA degree from the College of Management and a master's degree from the College of Management, the College of Engineering, or the College of Architecture and Design. Most importantly, the fully accredited dual degree program remains true to Lawrence Tech's mission of blending theory and practice to provide its students with real-world experience.

The dual degree program consists of 51 credits, 27 of which are MBA credits. Many students are able to complete the entire program in three years or less.

MASTER OF BUSINESS ADMINISTRATION/ GLOBAL LEADERSHIP AND MANAGEMENT (MBA/GLM) CURRICULUM

Foundation Course Work (up to 9 credit hours)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ACC 5003	Financial Accounting and Financial Statements	3
FIN 5012	Business Economics	2
MGT 5012	Business Applications of Statistical Analysis	2
MGT 5032	Business Law	2

MBA Courses (27 credit hours)

MBA foundation course work is required for students without undergraduate course work in business or relevant business experience.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MGT 6013	Leadership and Leadership Development	3
MIS 6013	Information Systems and the Enterprise	3

MKT 6013	Marketing Management	3
FIN 6013	Acquiring and Managing Financial Capital	3
ACC 6013	Management Control Systems	3
HRM 6023	Human Resource Management	3
OPM 6033	Operations Management	3
MGT 6053	Perspectives in International Business	3
MGT 6063	Strategic Management (capstone)	3

Electives (6 credit hours)

Students should consult with an academic advisor for a full list of electives available.

GLM Courses (18 credit hours)

Students should consult with an academic advisor before selecting GLM course work.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
GLM 6013	Global Leadership for the 21st Century	3
GLM 6023	Globalization and the New Economy	3
GLM 6033	Global Organization Development and Change	3
GLM 6043	Understanding Management in a Global Society	3
GLM 6053	Managing Technology and Innovation in a Global Society	3
GLM 6063	Managing a Global Workforce	3
GLM 6073	Global Business Planning and Strategy	3
GLM 6113	Logistics, Global Operations, & Supply Chain Management	3
GLM 6123	International Law	3
GLM 6163	International Financial Systems and Investments	3
GLM 6303	Design of New Products, Processes, and Systems	3
GLM 6313	Creating and Managing Service Innovation	3
GLM 6323	Evaluating Emerging Technologies	3
GLM 6343	Creating Business Sustainability	3
GLM 6353	International Marketing Management	3

**MASTER OF BUSINESS ADMINISTRATION/MASTER OF SCIENCE IN
GLOBAL OPERATIONS AND PROJECT MANAGEMENT (MBA/MSGOPM)
CURRICULUM**

Foundation Course Work (up to 9 credit hours)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
ACC 5003	Financial Accounting and Financial Statements	3
FIN 5012	Business Economics	2
MGT 5012	Business Applications of Statistical Analysis	2
MGT 5032	Business Law	2

MBA Courses (27 credit hours)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MGT 6013	Leadership and Leadership Development	3
ACC 6013	Management Control Systems	3
FIN 6013	Acquiring and Managing Financial Capital	3
HRM 6023	Human Resource Management	3
OPM 6033	Operations Management	3
MGT 6053	Perspectives in International Business	3
MIS 6013	Information Systems and the Enterprise	3
MKT 6013	Marketing Management	3
MGT 6063	Strategic Management (capstone)	3

MSGOPM Courses (21 credit hours)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
GLM 6053	Managing Technology and Innovation in a Global Society	3
GLM 6113	Logistics, Global Operations, and Supply Chain Management	3
MGT 6153	Project Management	3
MGT 6223	Project Risk and Project Quality Management	3
GLM 6303	Design of New Products, Processes, and Systems	3
GLM 6343	Creating Business Sustainability	3
GLM 6403	Design of New Products, Processes, and Systems–Practicum	3

Elective (3 credit hours)**MASTER OF BUSINESS ADMINISTRATION/MASTER OF SCIENCE IN INFORMATION SYSTEMS (MBA/MSIS) CURRICULUM****Foundation Course Work**

Students should consult with an academic advisor to discuss required foundation courses as they may vary depending on the program declared as the primary master's degree.

MBA Courses (27 credit hours)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MGT 6013	Leadership and Leadership Development	3
MIS 6013	Information Systems and the Enterprise	3
MKT 6013	Marketing Management	3
FIN 6013	Acquiring and Managing Financial Capital	3
ACC 6013	Management Control Systems	3
HRM 6023	Human Resources Management	3
MGT 6053	Perspectives in International Business	3
OPM 6033	Operations Management	3
MGT 6063	Strategic Management	3

MSIS Courses (21 credit hours)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
HRM 6033 or	Leading Organizational Change or	3
MGT 6013	Leadership and Leadership Development	
MIS 6113	Database Models (prerequisite for MIS 6163 or MIS 7643)	3
MIS 6123	Analysis and Design of Complex Systems (prerequisite for MIS 6xx3 Business or MIS 7643)	3
MIS 6143	IT Infrastructure	3
MGT 6153	Project Management	3
MIS 6163 or	Business for IT Professionals or	3
MIS 7643	Enterprise Integration	
MIS 7593 or	Managing Information Technology or	3
MIS 6543	Master's Thesis	

Additional Requirements

- two 3-credit-hour electives
- foundation courses required for students without undergraduate course work in business or relevant business experience

DUAL DEGREE PROGRAM FOR CURRENT STUDENTS AND ALUMNI

Current students and Lawrence Tech alumni desirous of obtaining a second degree from the College of Management can have their required course work individually tailored and aligned with their existing degree.

CERTIFICATE IN INFORMATION ASSURANCE MANAGEMENT

In this 15-credit-hour certificate program, students will study security policies and planning, security technologies and procedures, training and awareness programs, compliance protocols, and audit processes. To successfully complete this program, students must take 15 credit hours of the courses listed below and achieve a GPA of 3.0 or better.

Foundation Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MIS 6013	Information Systems and the Enterprise or equivalent professional experience as approved by advisor	3

Core Courses

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MIS 6143	Information Technology Infrastructure and/or	3
MCS 5993	Topics in Computer Science (Introduction to Security) and/or	3
MIS 5213	High Tech Cyber Crime	3

Electives

(Choose three or four courses to reach the 15-credit-hour requirement)

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MCS 5813	Cryptography	3
MCS 6813	Network Cryptography	3
MIS 7223	Enterprise Systems Security	3
MIS 7233	Network Security	3
MIS 7243	Disaster Recovery and Business Continuity	3
MIS 7253	Information Assurance Practicum	3

CERTIFICATE IN NONPROFIT MANAGEMENT AND LEADERSHIP

The 12-credit-hour Certificate in Nonprofit Management and Leadership offers a rigorous examination of the evolving nonprofit sector and its core management competencies. The program uniquely blends the best practices of business and nonprofit management with a focus on multi-sector collaboration, ethics, and social responsibility. Course work topics include comprehensive fund development education, leadership and capacity building, financial accountability, and evaluation.

Credits earned can be applied to the MBA concentration in Nonprofit Management. To successfully complete this program, students must take 12 credit hours of the courses listed below and achieve a GPA of 3.0 or better.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MGT 6033	Leading Change and Building Capacity for Nonprofits	3
MGT 6083	Comprehensive Fund Development for Nonprofits	3
MGT 6073	Strategic Nonprofit Management	3
Elective		3

CERTIFICATE IN PROJECT MANAGEMENT

This 12-credit-hour certificate is designed to provide students comprehensive knowledge of project management skills in either a managerial or technical environment.

Students may work toward the Certificate in Project Management independently or pursue it as part of any of the college's master's degree programs (Master of Business Administration, Master of Science in Information Systems, or Master of Science in Global Operations and Project Management) by applying to both programs simultaneously. To successfully complete this program, students must take 12 credit hours of the courses listed below and achieve a GPA of 3.0 or better.

<i>Course Number</i>	<i>Subject</i>	<i>Cr. Hrs.</i>
MGT 6153	Project Management (required)	3
HRM 6123	Performance and Productivity Improvement	3
MGT 6033	Leading Organizational Change	3
HRM 6133	Managing the Project Organization	3

MGT 6213	Directed Study/Project Management	3
MGT 6223	Project Risk and Project Quality Management	3
MIS 6253	Managing Outsourced Projects	3

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Dan Faoro
TBA

Arts and Sciences

Dean of Arts and Sciences

Associate Dean of Arts and Sciences
Chair, Humanities, Social Sciences, and Communication
Chair, Mathematics and Computer Science
Chair, Natural Sciences

Hsiao-Ping Moore
Glen A. Bauer
Melinda Phillips
David Bindschadler
Anthony Sky

Engineering

Dean of Engineering

Associate Dean of Engineering
Associate Dean of Graduate Studies and Research
Chair, Civil Engineering
Chair, Electrical and Computer Engineering
Chair, Engineering Technology
Chair, Mechanical Engineering

Nabil Grace
Lewis Frasch
Elin Jensen
Edmund Yuen
Philip Olivier
Ken Cook
Badih Ali Jawad

Management

Dean of Management

Assistant Dean of Management
Chair, Doctor of Business Administration
Chair, Doctor of Management in Information Technology
Director, Center for Nonprofit Management
Director, Center for Global Leadership and Understanding

Louis A. DeGennaro

Chinling Lin
Jacqueline Stavros
A. Lerine Steenkamp
Jerry Lindman
Thomas Marx

Student Affairs

Dean of Students

Director, Career Services
Assistant Director, Career Services
Coordinator, Student Employment
Director, International Programs
Program Coordinator, KCP Grant and DAPCEP
Director, Student Engagement
Director of Residence Life, University Housing
Residence Hall Coordinator, Housing-South
Residence Hall Coordinator, Housing-North
Director, Recreation, Athletics, and Wellness
University Psychologist, Clinical Counseling Services
Clinical Counselor, Clinical Counseling Services

Director, Campus Dining

Kevin Finn

Margaret (Peg) Pierce
Jennifer Cunningham
Sherri Kerby
Cyndi McMichael
Eula Muckleroy
Leslie Wilson
Janielle Tchakerian
Tanisha McIntosh
Kimberly Osantowski
Scott A. Trudeau
Jeff Betman
Lusine
Hambardzumyan
Nancy Thomas

Faculty Committees

Academic Achievement and Assessment

The Committee on Academic Achievement and Assessment coordinates policy and procedures related to both college and University assessment programs. The committee's principal responsibility is to promote improvements in learning through implementation of the University's North Central Association's plan for academic assessment. The committee is advisory to the Council of Academic Deans, and its members and chairperson are appointed by the provost.

Academic Program Review

The Academic Program Review Committee is an advisory committee comprised of academic representatives of each college as well as service representatives from the University Library, IT Service Delivery, eLearning Services, and other units. Chaired by the vice president for finance and administration, this committee advises faculty members on documenting the impact of proposed new programs on academic and administrative services.

Academic Standing

The Academic Standing Committee consists of the dean of students, the director of admissions, and representatives from the four colleges. Members are appointed by the provost upon recommendation of the deans and the group is chaired by the dean of students. The committee acts on petitions of students who have been suspended from the University for academic reasons.

Additional Credit Review

The Additional Credit Review Committee is chaired by the registrar and has a faculty representative from each of the four colleges. It reviews all applications from students for additional transfer credit and for guest credit.

Council of Academic Deans

The Council of Academic Deans consists of the four college deans, the dean of students, and the dean of graduate programs. The council provides the principal advice to the provost on academic and administrative affairs.

Faculty Councils

Organized to meet its own structural requirements, each college has a Faculty Council that advises the dean on academic and other matters. The councils are independent of administrative channels and may consider any issues they believe appropriate, but are particularly involved with faculty personnel and curricular concerns within their colleges. Membership of the Faculty Councils consists of full-time college faculty. Advice of Faculty Councils is not binding on academic deans, but is considered significant to administrative decision-making.

Faculty Senate

The Faculty Senate is the entity officially constituted to represent and promote University-wide faculty aims for the purpose of furthering academic excellence and contributing to the long-term success of the University. Membership of the Faculty Senate consists of regular full-time faculty on annual contracts.

Financial Aid and Scholarships

The Financial Aid and Scholarships Committee consists of faculty representatives from the four colleges, one of whom serves as chairperson, and of representatives from various University service departments. The director of financial aid and veterans affairs is an ex-officio member. Members are appointed by the provost. The committee advises the provost on policy and distribution of all University scholarships and works closely with the Office of Financial Aid.

Graduate Council

The Graduate Council consists of faculty with program experience or interests at the graduate level, and of observers from academic-service functions. All members are appointed by the provost upon the recommendation of the college deans. This group reviews and recommends graduate policies and programs. The dean of graduate programs is an ex-officio member.

Library

The Library Committee acts as an advisory board for the director of the library on service and policy issues. It consists of six faculty members, one each from architecture, engineering, humanities, management, natural sciences, and technology, one of whom serves as chairperson. Members are appointed by the deans. The director of the library is an ex-officio member.

Research Support Services

The Research Support Services Committee is made up of the associate provost, a representative of the vice president for finance and administration, a representative of the Office of Economic Development and Government Relations, and five full-time faculty members, one appointed by the dean of each college and one by the Faculty Senate. This committee functions to identify and recommend improvements in infrastructure and support for Lawrence Tech faculty initiating and conducting research.

Standing Committee on Tenure Removal

A panel of the Standing Committee on Tenure Removal, selected in accordance with Section 2 of the Faculty Handbook, shall hear all cases brought under section 2.10.7 for removal of tenure from a tenured faculty member.