Program Change Request

Date Submitted: 10/07/20 3:24 pm

Viewing: **SM-MBA-MBA : M.B.A. in Management of Technology**

Last edit: 10/08/20 10:24 am

Changes proposed by: Michael S Koskinen (michaelk)

Catalog Pages Using this Program

M.B.A. in Management of Technology

Department(s) / College(s)

In Workflow

1. **MGMT Chair**
2. **AIS**
3. **SM Dean**
4. **Vice Provost of Graduate Studies**
5. President of the Faculty Senate
6. Provost's Office
7. Academic Issues Committee

Approval Path

1. 10/02/20 6:35 pm Zhipeng Yan (zyan): Approved for MGMT Chair

2. 10/07/20 2:34 pm Jessie Tsui (tsui): Rollback to Initiator
3. 10/07/20 4:01 pm Zhipeng Yan (zyan): Approved for MGMT Chair
4. 10/13/20 10:46 am Mesfin Ayne (ayne): Approved for AIS
5. 10/13/20 11:16 am Oya Tukel (tukel): Approved for SM Dean

Department	College
Management (MGMT)	Martin Tuchman Sch of Mgmnt (SM)

Name of Program M.B.A. in Management of Technology

Academic Level(s)

Graduate

Degree Designation	MBA
Campus(es) where the program will be offered Newark	
CIP Code	
Effective Catalog Edition	2020-2021
Faculty Senate Review required?	
Related Department(s)	

If the change involves altering the department's curriculum paradigm as currently outlined in the NJIT catalog, please attach existing and proposed paradigms.

Articulation with other institutions, if any

Objectives

Briefly summarize the program and indicate its objectives; e.g., the nature and focus of the program, the knowledge and skills students will acquire, any cooperative arrangements with other institutions or external agencies in offering this program, etc.

Need

Provide justification of the need for this program. If the program falls within the liberal arts and sciences and does not specifically prepare students for a career, then provide evidence of student demand and indicate opportunities for students to pursue advanced study (if the degree is not terminal with regard to further education). If the program is career-oriented or professional in nature, then in addition to student demand give evidence of labor market need and results of prospective employer surveys. Report labor market need as appropriate on local, regional, and national bases. Specify job titles and entry-level positions for program graduates, and/or indicate opportunities for graduates to pursue additional studies.

Relationship to the University and State Master Plans

Describe the relationship of the program to the following: institutional master plans and priorities.

Relationship to Similar Programs in the State and Region

List similar programs within the state and in neighboring states. How does this program compare to those currently being offered?

Distinguished Programs Nationally

For doctoral programs: Supply a select list of distinguished programs nationally in this discipline.

Students

Estimate anticipated enrollments from the program's inception until a steady state or optimum enrollment is reached.

Resources to Support the Program

Briefly describe the additional resources needed to implement and operate the program during the program's first five years, e.g., the number of full-time faculty, number of adjunct faculty, computer equipment, print and non-print material, etc.

Course
Development Plan

Names of faculty
involved

Libraries and
Computing
Facilities

Classrooms and
Laboratories Needs

Catalog Description (For PHD programs, include information about the qualifying exams, and other program milestones.)

Curriculum

Course List

Code	Title	Credits
Bridge Course		
MGMT 501	Management Foundations	3
Total Credits		3

Course List

Code	Title	Credits
Module I 1		
ACCT 615	Management Accounting	3
FIN 600	Corporate Finance I	3
FIN 610	Global Macro Economics	3
or ECON 610	Managerial Economics	
HRM 601	Organizational Behavior	3
MGMT 691	Legal and Ethical Issues	3
MIS 645	Information Systems Principles	3
or IS 677	Information System Principles	

Code	Title	Credits
MIS 680	Management Science	3
or MGMT 630	Decision Analysis	
MRKT 620	Competing in Global Markets	3
MGMT 692	Strategic Management	3
or MGMT 680	Entrepreneurial Strategy	
Module II Elective Core Courses		
Select three of the following:		9
MGMT 620	Management of Technology	
MGMT 635	Data Mining and Analysis	
MGMT 640	New Venture Management	
MGMT 650	Knowledge Management	
MGMT 670	International Business	
MGMT 699	ST in Management	
MIS 648	Decision Support Systems for Managers	
EM 636	Project Management	
HRM 630	Managing Technological and Organizational Change	
Module III Concentration Courses		
Select four courses in one concentration:		12
MIS Concentration Courses 1		
MGMT 630	Decision Analysis	
MGMT 635	Data Mining and Analysis	

Code	Title	Credits
MGMT 641	Global Project Management	
MGMT 710	Forecasting Methods for Business Decisions	
MIS 648	Decision Support Systems for Managers	
IS 631	Enterprise Database Management	
IS 663	System Analysis and Design	
IS 678	IT Service Management	
IS 684	Business Process Innovation	
IS 688	Web Mining	
Finance Concentration Courses		
FIN 610	Global Macro Economics	
FIN 624	Corporate Finance II	
FIN 626	Financial Investment Institutions	
FIN 627	International Finance	
FIN 634	Mergers, Acquisitions, and Restructuring	
FIN 641	Derivatives Markets	
FIN 642	Derivatives and Structured Finance	
FIN 650	Investment Analysis and Portfolio Theory	
Marketing Concentration Courses		
MRKT 631	Marketing Research	
MRKT 636	Design and Development of High Technology Products	
MRKT 638	Sales Management for Technical Professionals	

Code	Title	Credits
MNE 655	Concurrent Engineering	
MGMT 625	Distribution Logistics	
IE 659	Supply Chain Engineering	
IS 664	Customer Discovery	
Healthcare Management Concentration Courses		
MGMT 635	Data Mining and Analysis	
MIS 648	Decision Support Systems for Managers	
CS 631	Data Management System Design	
CS 632	Advanced Database System Design	
CS 634	Data Mining	
CS 639	Elec. Medical Records: Med Terminologies and Comp. Imp.	
BNFO 615	Data Analysis in Bioinformatics	
BNFO 644	Data Mining and Management in Bioinformatics	
MATH 663	Introduction to Biostatistics	
IE 686	Intro to Healthcare Systems	
IE 687	Healthcare Enterprise Systems	
IE 688	Healthcare Sys Perfor Modeling	
MGMT 650	Knowledge Management	
Cooperative Education		
Innovation and Entrepreneurship Concentration Courses		
MGMT 625	Distribution Logistics	

Code	Title	Credits
MGMT 640	New Venture Management	
MGMT 645	New Venture Finance	
MGMT 649	Convention, Creativity and Innovation	
MGMT 688	Information Technology, Business and the Law	
MRKT 636	Design and Development of High Technology Products	
HRM 630	Managing Technological and Organizational Change	
IT Sales & Analytics		
MGMT 691	**Legal and Ethical Issues**	
Sales Process and Analytics (New Course)		
IS 678	**IT Service Management**	
MRKT 638	**Sales Management for Technical Professionals**	
Custom Concentration		
Select 4 elective courses		
STEM-MBA Option Concentration		
Select 4 elective courses		
Total Credits		48

1 All courses required. No substitutions.

Is licensure required of program graduates to gain employment?

Will the institution seek accreditation for this program?

Add any additional information you would like brought to the attention of CUE/ CGE here

Attach any additional information you would like brought to the attention of CUE/ CGE here: Uploaded Files:

Reviewer Comments

Jessie Tsui (tsui) (10/07/20 2:34 pm): Rollback: Please review the credits and hours for courses.

Key: 133

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Program Change Request

Date Submitted: 10/07/20 3:25 pm

Viewing: SM-BUS-MS : Master of Science in Management (MSM)

Last edit: 10/08/20 10:26 am

Changes proposed by: Michael S Koskinen (michaelk)

Catalog Pages Using this Program

Master of Science in Management (MSM)

Department(s) / College(s)

In Workflow

1. **MGMT Chair**
2. **AIS**
3. **SM Dean**
4. **Vice Provost of Graduate Studies**
5. President of the Faculty Senate
6. Provost's Office
7. Academic Issues Committee

Approval Path

1. 10/05/20 4:48 pm Zhipeng Yan (zyan): Approved for MGMT Chair

2. 10/07/20 2:34 pm Jessie Tsui (tsui): Rollback to Initiator
3. 10/07/20 4:02 pm Zhipeng Yan (zyan): Approved for MGMT Chair
4. 10/13/20 10:42 am Mesfin Ayne (ayne): Approved for AIS
5. 10/13/20 11:16 am Oya Tukel (tukel): Approved for SM Dean

Department	College
Management (MGMT)	Martin Tuchman Sch of Mgmnt (SM)

Name of Program Master of Science in Management (MSM)

Academic Level(s)

Graduate

Degree Designation	MS
Campus(es) where the program will be offered	Newark
CIP Code	
Effective Catalog Edition	2020-2021
Faculty Senate Review required?	
Related Department(s)	

If the change involves altering the department's curriculum paradigm as currently outlined in the NJIT catalog, please attach existing and proposed paradigms.

Articulation with other institutions, if any

Objectives

Briefly summarize the program and indicate its objectives; e.g., the nature and focus of the program, the knowledge and skills students will acquire, any cooperative arrangements with other institutions or external agencies in offering this program, etc.

Need

Provide justification of the need for this program. If the program falls within the liberal arts and sciences and does not specifically prepare students for a career, then provide evidence of student demand and indicate opportunities for students to pursue advanced study (if the degree is not terminal with regard to further education). If the program is career-oriented or professional in nature, then in addition to student demand give evidence of labor market need and results of prospective employer surveys. Report labor market need as appropriate on local, regional, and national bases. Specify job titles and entry-level positions for program graduates, and/or indicate opportunities for graduates to pursue additional studies.

Relationship to the University and State Master Plans

Describe the relationship of the program to the following: institutional master plans and priorities.

Relationship to Similar Programs in the State and Region

List similar programs within the state and in neighboring states. How does this program compare to those currently being offered?

Distinguished Programs Nationally

For doctoral programs: Supply a select list of distinguished programs nationally in this discipline.

Students

Estimate anticipated enrollments from the program's inception until a steady state or optimum enrollment is reached.

Resources to Support the Program

Briefly describe the additional resources needed to implement and operate the program during the program's first five years, e.g., the number of full-time faculty, number of adjunct faculty, computer equipment, print and non-print material, etc.

Course
Development Plan

Names of faculty
involved

Libraries and
Computing
Facilities

Classrooms and
Laboratories Needs

Catalog Description (For PHD programs, include information about the qualifying exams, and other program milestones.)

The MSM curriculum puts it all together and prepares managers who know how to use technology to meet strategic objectives; who have business smarts; and who can meet the growing demand for technology savvy leadership

Curriculum Structure & Content

The MSM curriculum is divided into two modules: the business core and concentration area.The business core comprises one-half (15 credits) of the degree requirements with the remaining 15 credits focusing on the concentration's management knowledge component.

The Business Core: The business core provides the fundamental business knowledge needed to evaluate business models and to assume managerial positions.Coursework includes key functional areas in business: accounting, finance, marketing, information systems, leadership and organizational behavior.

Management Concentration Area: Each student selects a management area with a technical focus for in-depth study. Concentration courses are designed to complement the concepts offered in the 15 credit business core. Current concentration areas include: Business Analytics, Global Project Management, and Web Systems and Media, and **Financial Technology (FinTech)**.

Management Concentrations

Each student must select an area of concentration.The concentration consists of 5 classes for a total of 15 credits.

Global Project Management

What is Global Project Management about?

The Global Project Management specialization is focused on Manufacturing, Construction, Supply Chain, and Business Process Management. The areas include the expertise of the engineering resource planning function such as Production Planning, Global Project Planning, Engineering Management, and Construction Planning and Control.

Who is it for?

Professionals who are interested in the field of complex Project Management, relationship facilitation and coordination between project teams and customers, and harmonizing the demands among project scope, time, expenditures and quality of the end product.Many students who select Global Project Management have undergraduate degrees in International Business, Civil Engineering, and Architecture, and are seeking a career focused more on corporate and project management fields.

Where Can It Take Me?

Career tracks begin with managing focused projects and leading to work on larger international and national projects.Global Project Management professionals would then transition into managerial roles and run Operations departments. Sustained career progress tracks to the COO position.

Business Analytics

What is Business Analytics?

The Business Analytics specialization is focused on business development, solutions, product development and

The Business Analytics specialization is focused on business development, solutions, product development and analysis of the customer requirements.Prized skills include expertise in business forecasting, project costing and accounting, business development, and structured solutions to customer complex business problems.

Who is it for?

Candidates who are interested in business solutions, consultation, business development and strategies, and infrastructure and planning management. Many students who select business analytics have undergraduate degrees in Engineering, Technology, and Applied Science and are seeking a career focused on business solutions development and management.

Where Can It Take Me?

The career track begins with managing focused projects as business analysts with technological, solution provider, governmental, and non-profit organizations. Business analysts then transition into managerial roles and lead business development teams. Sustained career progress tracks to the director of operations, COO and CTO.

Web Systems and Media

What is Web Systems and Media?

The Web Systems and Media specialization is focused on the development of a revolutionized way of web applications and social media applications. They include expertise in marketing strategies, front end – user experience analysis, SEO (Search Engine Optimization) management, and working closely with development teams for final product design.

Who is it for?

Candidates who are interested in web development, graphics development, media and journalism, and online

marketing strategy development. Many students who select Web Systems and Media have undergraduate degrees in Information Technology, Computer Science, Journalism, Graphic design, and professional and technical communications.

Where Can It Take Me?

The career track begins with work on focused projects as front end developer or content developer supporting web development teams. Web Systems and Media professionals then move into managerial roles, leading project development teams. Sustained career progress tracks to project lead and CTO.

Financial Technology

What is Financial Technology?

Financial Technology (FinTech) is a rapidly growing subsector of the financial services industry, which involves the application of new technologies including software tools, networking, user experience and interface platforms, and modern modeling and analytical techniques to improve the efficiency and deployment of traditional financial services. The rapid increase in the quantity, variety, and availability of new data and information sources has fundamentally changed legacy business practices in the financial services industry. Big data creates an increasing market need for talents who utilize new technologies and innovations to understand hidden patterns in investor habits and market behaviors as well as assist managers in making informed data-driven decisions. The requisite skillset required to process and analyze such information has resulted in considerable demand for staff with software development, mathematical and statistical modeling, and practical problem solving expertise. New financial technologies include, but are not limited to, crypto-currencies (e.g., bitcoin), blockchain, cloud computing, retail banking automation, machine learning and deep

learning, automated investment advisement, algorithmic trading, and risk management framework development and associated visualization tools.

Who is it for?

Students who are interested in applying modern tools to improve financial activities, design new applications, processes, products or business models related to financial services. Typically, students who undertake the FinTech concentration have obtained undergraduate degrees in Engineering, Technology, Finance or the applied sciences and are seeking a career focused on applying technical tools for the development of new financial services.

What are Potential Career Prospects in FinTech?

There are various career paths one may pursue after completing the FinTech concentration. In particular, careers in finance, technology, and entrepreneurship such as investment banking, international finance, commercial banking, sales and trading, information technology, social entrepreneurship, etc. are vocations within the scope of this program. Graduates may work for FinTech startups as well which concentrate in cryptocurrency management and trading, blockchain technologies including smart contracts, open banking, insurtech, Robo-advisement, machine learning and data mining applications and cybersecurity. Some may work for traditional financial services companies, which are in need of staff with technical skillsets to improve existing business practices and/or develop new processes related to technological innovations.

IT Sales & Analytics

Who is it for?

The concentration in IT Sales & Analytics will help to prepare students with technology backgrounds into careers with effective sales and management roles within technology companies.

careers with effective sales and management roles within technology companies.

Focused on connecting consumers with innovative tech products, IT sales is all about identifying the customers who can benefit from a particular solution and showing them how that solution can meet their needs. Encompassing hardware (computers, servers, networking devices), software (operating systems), and services (applications, big data, and cloud computing) technology sales can vary greatly depending on the particular company you work for and the type of sales you do. Strong technical knowledge of the product and industry is important to identify the customer base that would benefit.

What are Potential Career Prospects in IT Sales?

Careers in IT Sales include many roles in the from sales representatives to chief sales officers in companies.

Curriculum

The MSM program blends technical expertise with fundamental management knowledge.

Concentration Areas:

Business Analytics

Global Project **Management** ~~Managment~~

Web Systems and Media

Financial Technology (FinTech)

IT Sales & Analytics

Management: The Next Step for Professionals with Technical Backgrounds

At some point in their careers, successful professionals are faced with the prospect of moving into managerial positions as the next logical step in their career progressions.The MSM program is designed to facilitate this transition.It is more focused than is the MBA curriculum through a stronger emphasis on mastery of a clearly defined concentration area.

The MSM is best suited for candidates who wish to have more influence in their organizations by moving into managerial positions, but who also desire to retain their allegiance to an area of technical expertise.

A Fast Tracked Program for Fast Tracked Professionals

The MSM program is delivered with special attention to people on the move.Students can complete the degree requirements in two years of part-time study or in a single year of full-time study.Courses are offered during the evenings to accommodate the schedules of working professionals.In addition, the 15-credit MSM core is available on-line.

MS in Management Curriculum

The **Master of Science in Management** is a 30 credit program that prepares graduates for managerial roles in organizations. Its emphasis is on melding business fundamentals and technical knowledge within specific areas

of concentration including Business Analytics, Global Project Management, and Web Systems and Media, and **Financial Technology (FinTech)**.

Course List

Code	Title	Credits
Bridge Course		
MGMT 501	Management Foundations	3

Course List

Code	Title	Credits
Core Courses		
ACCT 615	Management Accounting	3
FIN 600	Corporate Finance I	3
HRM 601	Organizational Behavior	3
MIS 645	Information Systems Principles	3
or IS 677	Information System Principles	
MRKT 620	Competing in Global Markets	3
Select 15 credits from one area:		15
Global Project Management 1		
ECON 610	Managerial Economics	
or FIN 610	Global Macro Economics	
EM 636	Project Management	
EM 637	Project Control	
EM 691	Cost Estimating for Capital Projects	

Code	Title	Credits
IE 618	Engineering Cost and Production Economics	
IE 659	Supply Chain Engineering	
IS 614	Command and Control Systems	
IS 684	Business Process Innovation	
MGMT 641	Global Project Management	
Web Systems and Media 2		
IS 661	User Experience Design	
IS 664	Customer Discovery	
IS 688	Web Mining	
IS 690	Web Services and Middleware	
MRKT 637	Marketing Communications and Promotions 4	
PTC 601	Advanced Professional and Technical Communication	
PTC 605	Elements of Visual Design	
PTC 606	Advanced Information Design	
PTC 650	eLearning Design for Mobile	
Business Analytics 3		
CS 634	Data Mining	
IS 631	Enterprise Database Management	
IS 687	Transaction Mining and Fraud Detection	
IS 688	Web Mining	
MATH 661	Applied Statistics	

Code	Title	Credits
MGMT 625	Distribution Logistics	
MGMT 630	Decision Analysis	
MGMT 635	Data Mining and Analysis	
MGMT 650	Knowledge Management	
MGMT 710	Forecasting Methods for Business Decisions	
MIS 648	Decision Support Systems for Managers	
MRKT 645	Internet Marketing Strategy	
Financial Technology 4		
FIN 611	Intro to Topics in Fin Tech	
FIN 616	Data Driven Financial Modeling	
FIN 620	Adv Financial Data Analytics	
MGMT 735	Deep Learning in Business	
FIN 641	Derivatives Markets	
FIN 626	Financial Investment Institutions	
FIN 624	Corporate Finance II	
MGMT 635	Data Mining and Analysis	
IT Sales & Analytics		
IS 678	**IT Service Management (MRKT XXX Sales Process and Analytics (New Course))**	
MRKT XXX Sales Process and Analytics (New Course)		
MGMT 691	**Legal and Ethical Issues**	

Code	Title	Credits
MRKT 638	**Sales Management for Technical Professionals (MRKT XXX Sales Process and Analytics (New Course))**	
MRKT 636	**Design and Development of High Technology Products**	
or MRKT 631	**Marketing Research**	
or MRKT 632	**Marketing Strategy for Technology-Based Organizations**	
Total Credits		30

1 One course must be either ECON 610 Managerial Economics or MGMT 641 Global Project Management

2 One course must be MRKT 637 Marketing Communications and Promotions

3 One course must be MGMT 630, MGMT 635, MGMT 710, MIS 648, or MRKT 645.

4 One course must be FIN 611 and two courses must be FIN 616, FIN 620 and MGMT 735

Is licensure required of program graduates to gain employment?

Will the institution seek accreditation for this program?

Add any additional information you would like brought

to the attention of
CUE/ CGE here

Attach any additional information you would like brought to the
attention of CUE/ CGE here: Uploaded Files:

Reviewer
Comments

Jessie Tsui (tsui) (10/07/20 2:34 pm): Rollback: Please review the credits and hours for courses.

Key: 132

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Program Change Request

New Program Proposal

Date Submitted: 07/16/20 10:48 am

Viewing: EN-MFEN-MS : M.S. in Manufacturing Systems Engineering

Last edit: 07/16/20 10:48 am

Changes proposed by: Sanchoy Das (das)

Department(s) / College(s)

Department	College
Mechanical & Industrial Engr (MIE)	Newark College of Engineering (EN)

Name of Program	M.S. in Manufacturing Systems Engineering
Academic Level(s)	Graduate
Degree Designation	MS
Campus(es) where the program will be offered	Newark
CIP Code	
Effective Catalog Edition	2020-2021
Faculty Senate Review required?	

In Workflow

1. **MIE Chair**
2. **AIS**
3. **EN Dean**
4. **Vice Provost of Graduate Studies**
5. President of the Faculty Senate
6. Provost's Office
7. Academic Issues Committee

Approval Path

1. 07/09/20 11:44 am Joga Rao (raoi): Approved for MIE Chair
2. 07/13/20 1:21 pm Mesfin Ayne (ayne): Rollback to Initiator
3. 09/08/20 11:26 pm Joga Rao (raoi): Approved for MIE Chair

Related Department(s)

4. 09/09/20 11:51 am Mesfin Ayne (ayne): Approved for AIS
5. 10/07/20 11:05 am Kam Moshe (kam): Approved for EN Dean

Articulation with other institutions, if any

Objectives

Briefly summarize the program and indicate its objectives; e.g., the nature and focus of the program, the knowledge and skills students will acquire, any cooperative arrangements with other institutions or external agencies in offering this program, etc.

NA

Need

Provide justification of the need for this program. If the program falls within the liberal arts and sciences and does not specifically prepare students for a career, then provide evidence of student demand and indicate opportunities for students to pursue advanced study (if the degree is not terminal with regard to further education). If the program is career-oriented or professional in nature, then in addition to student demand give evidence of labor market need and results of prospective employer surveys. Report labor market need as appropriate on local, regional, and national bases. Specify job titles and entry-level positions for program graduates, and/or indicate opportunities for graduates to pursue additional studies.

NA

Relationship to the University and State Master Plans

Describe the relationship of the program to the following: institutional master plans and priorities.

NA

Relationship to Similar Programs in the State and Region

List similar programs within the state and in neighboring states. How does this program compare to those currently being offered?

NA

Distinguished Programs Nationally

For doctoral programs: Supply a select list of distinguished programs nationally in this discipline.

Students

Estimate anticipated enrollments from the program's inception until a steady state or optimum enrollment is reached.

NA

Resources to Support the Program

Briefly describe the additional resources needed to implement and operate the program during the program's first five years, e.g., the number of full-time faculty, number of adjunct faculty, computer equipment, print and non-print material, etc.

NA

Course Development Plan	NA
Names of faculty involved	NA
Libraries and Computing Facilities	NA
Classrooms and Laboratories Needs	NA

Catalog Description (For PHD programs, include information about the qualifying exams, and other program milestones.)

The MS program in Manufacturing Systems Engineering is designed to train and educate professionals for successful careers by providing them with skills in the areas of supply chain modeling and analysis, automation and computerized process control, planning and design of industrial process operations, advanced economic analysis and project management and implementation.

Curriculum

Degree Requirements

Students with a B.S. degree in an engineering, information technology, operations management or related technical degree may apply for admission. Other students may be admitted and required to complete the bridge program. Bridge courses do not count toward degree requirements. Bridge courses range between 3 to 9 credits and are selected by the advisor when the student is admitted.
A minimum of 30 credits beyond a baccalaureate degree is required. Students select an area of specialization and individually design their programs in consultation with the graduate advisor. A master's project/Thesis is optional and faculty advisor approval must be obtained by students before they are permitted to register for Master's Project/Thesis IE 700/701.

M.S. in Manufacturing Systems Engineering (courses only)

Course List

Code	Title	Credits
Core Courses		12
IE 659	Supply Chain Engineering	
MNE 601	Computerized Manufacturing Systems	
MNE 602	Flexible and Computer Integrated Manufacturing	
MNE 654	Design for Manufacturability	
Areas of Specialization		
Select one of the following: Students may choose to specialize in any one of the following areas for 9 credits. Completion of all three courses in a specialization will qualify the student for a specialization certificate to be issued by the department. This will be awarded in conjunction with successful completion of the MS degree.		9
Quality Engineering		

Code	Title	Credits
IE 672	Industrial Quality Control	
IE 673	Total Quality Management	
IE 618	Engineering Cost and Production Economics	
Manufacturing Analytics		
IE 604	Advanced Engineering Statistics	
IE 621	Systems Analysis and Simulation	
EM 602	Management Science	
Process Automation		
ME 635	Computer-Aided Design	
ME 625	Introduction to Robotics	
IE 621	Systems Analysis and Simulation	
Supply Chain Operations		
EM 640	Distribution Logistics	
IE 618	Engineering Cost and Production Economics	
IS 665	Data Analytics for Info System (Electives)	
Electives		
Select three of the following courses A total of 9 elective credits are required, these should be selected from the list below. Electives may also be taken outside the listed courses if they match program objectives, these electives will require department approval.		9
IE 604	Advanced Engineering Statistics	
IE 621	Systems Analysis and Simulation	
IE 618	Engineering Cost and Production Economics	
IE 655	Concurrent Engineering	
IE 672	Industrial Quality Control	
IE 673	Total Quality Management	
EM 602	Management Science	
EM 640	Distribution Logistics	
ME 635	Computer-Aided Design	
ME 625	Introduction to Robotics	
IS 665	Data Analytics for Info System	

Code	Title	Credits
Total Credits		30

M.S. in Manufacturing Systems Engineering (Master's thesis)

Course List

Code	Title	Credits
Core Courses		18
IE 659	Supply Chain Engineering	
MNE 601	Computerized Manufacturing Systems	
MNE 602	Flexible and Computer Integrated Manufacturing	
MNE 654	Design for Manufacturability	
IE 701C	Master's Thesis	
Areas of Specialization		
Select one of the following: Students may choose to specialize in any one of the following areas for 9 credits. Completion of all three courses in a specialization will qualify the student for a specialization certificate to be issued by the department. This will be awarded in conjunction with successful completion of the MS degree.		9
Quality Engineering		
IE 672	Industrial Quality Control	
IE 673	Total Quality Management	
IE 618	Engineering Cost and Production Economics	
Manufacturing Analytics		
IE 604	Advanced Engineering Statistics	
IE 621	Systems Analysis and Simulation	
EM 602	Management Science	
Process Automation		
ME 635	Computer-Aided Design	
ME 625	Introduction to Robotics	
IE 621	Systems Analysis and Simulation	
Supply Chain Operations		
EM 640	Distribution Logistics	

Code	Title	Credits
IE 618	Engineering Cost and Production Economics	
IS 665	Data Analytics for Info System	
Electives		
Select one of the following courses A total of 3 elective credits are required, these should be selected from the list below. Electives may also be taken outside the listed courses if they match program objectives, these electives will require department approval.		3
IE 604	Advanced Engineering Statistics	
IE 621	Systems Analysis and Simulation	
IE 618	Engineering Cost and Production Economics	
IE 655	Concurrent Engineering	
IE 672	Industrial Quality Control	
IE 673	Total Quality Management	
EM 602	Management Science	
EM 636	Project Management	
EM 640	Distribution Logistics	
ME 635	Computer-Aided Design	
ME 625	Introduction to Robotics	
IS 665	Data Analytics for Info System	
Total Credits		30

Is licensure required of program graduates to gain employment?

Will the institution seek accreditation for this program?

Add any additional information you would like brought to the attention of CUE/ CGE here

Attach any additional information you would like brought to the attention of CUE/ CGE here: Uploaded Files:

Reviewer Comments **Mesfin Ayne (ayne) (07/13/20 1:21 pm):** Rollback: make changes to the electives

Key: 295