Date Submitted: 04/01/22 2:16 pm

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

Last approved: 02/28/21 2:27 pm

Last edit: 05/05/22 12:13 pm

Changes proposed by: Melodi D. Guilbault (guilbaul)

Catalog Pages Using this Program

M.B.A. in Management of Technology

Department(s) /	Department	College
College(s)	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 Newark

the program will be On-line (NJIT)

offered

CIP Code

Effective Catalog 2022-2023

Edition

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.

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. 04/01/22 2:18 pm Melodi D. Guilbault (guilbaul): Approved for MGMT Chair
- 2. 04/06/22 9:56 am Mesfin Ayne (ayne):
- Approved for AIS
- 3. 04/06/22 9:59 am Oya Tukel (tukel):

Approved for SM

Dean

4. 05/05/22 12:13 pm Sotirios Ziavras

(ziavras): Approved

for Vice Provost of **Graduate Studies**



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.)

3 3

Curriculum

Module I 1

ACCT 615	Management Accounting	3
<u>ECON 610</u>	<u>Managerial Economics</u>	<u>3</u>

FIN 600 Corporate Finance I

FIN 610 **Global Macro Economics**

Managerial Economics or ECON 610

HRM 601 Organizational Behavior 3

Legal and Ethical Issues in a Digital World **MGMT 691** 3

MIS 645 **Information Systems Principles** 3

or <u>IS 677</u>	Information System Principles	
MIS 680	Management Science	3
or MGMT 630	Decision Analysis	
MRKT 620	Global Marketing Management	3
MGMT 692	Strategic Management	3
or <u>MGMT 680</u>	Entrepreneurial Strategy	
Module II Electiv	e Core Courses	
Select three of the following:		9
<u>EM 636</u>	Project Management	
or <u>MGMT 64</u>	<u>1</u> Global Project Management	
HRM 630	Managing Technological and Organizational Change	
MGMT 620	Management of Technology	
MGMT 635	Data Mining and Analysis	
MGMT 640	New Venture Management	
MGMT 650	Knowledge Management	
MGMT 654	Management Consulting	
MGMT 670	International Business	
MGMT 699	ST in Management	
MIS 648	Decision Support Systems for Managers	
Module III Conce	entration Courses	
Select four cours	es in one concentration:	12
MIS Concentration Courses ¹		
MGMT 630	Decision Analysis	
MGMT 650	Knowledge Management	
MGMT 635	Data Mining and Analysis	
MGMT 641	Global Project Management	
MIS 648	Decision Support Systems for Managers	
<u>IS 601</u>	Web Systems Development	
<u>IS 631</u>	Enterprise Database Management	
<u>IS 663</u>	System Analysis and Design	
<u>IS 665</u>	Data Analytics for Info System	
<u>IS 678</u>	IT Service Management	
<u>IS 678</u> <u>IS 684</u>	IT Service Management Business Process Innovation	

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Finance Concentration Courses
  FIN 611
                 Intro to Topics in Fin Tech
  FIN 624
                 Corporate Finance II
  FIN 626
                 Financial Investment Institutions
  FIN 627
                 International Finance
                Mergers, Acquisitions, and Restructuring
  FIN 634
  FIN 641
                 Derivatives Markets
                 Derivatives and Structured Finance
  FIN 642
  FIN 650
                Investment Analysis and Portfolio Theory
  Marketing Concentration Courses
  MRKT 631
                Marketing Research
                 Marketing Strategy for Technology-Based Organizations
  MRKT 632
                 Design and Development of High Technology Products
  MRKT 636
                Sales Management for Technical Professionals
  MRKT 638
                 Digital Marketing Strategy
  MRKT 645
  MNE 655
                 Concurrent Engineering
  MGMT 625
                Distribution Logistics
  <u>IE 659</u>
                Supply Chain Engineering
  IS 664
                 Customer Discovery
Innovation and Entrepreneurship Concentration Courses <sup>2</sup>
  MGMT 620
                Management of Technology
  MGMT 625
                 Distribution Logistics
                New Venture Management
  MGMT 640
  MGMT 645
                 New Venture Finance
  MGMT 649
                 Convention, Creativity and Innovation
  MGMT 688
                Information Technology, Business and the Law
  MGMT 680
                Entrepreneurial Strategy
  MRKT 636
                 Design and Development of High Technology Products
  HRM 630
                Managing Technological and Organizational Change
IT Sales & Analytics <sup>3</sup>
  MRKT 631
                Marketing Research
  MRKT 655 Sales Process and Analytics
Cooperative Education
  MRKT 632
                 Marketing Strategy for Technology-Based Organizations
```

MRKT 638	Sales Management for Technical Professionals		
MRKT 645	Digital Marketing Strategy		
MRKT 655	Sales Process and Analytics		
<u>IS 678</u>	IT Service Management		
Custom Concen	tration		
Select 4 elective	courses		
STEM-MBA Opti	ion Concentration		
Select 4 elective	courses		
Total Credits 1	45		
All courses requ 2	uired. No substitutions.		
On-campus prog	gram only		
MRKT 655 and I	MRKT 655 and IS 678 required		
<u>Under Module I</u>	I, the course MGMT 630 (Decision Analysis) is included as well.		
Bridge Course			
MGMT 501 Man	nagement Foundations3		
Total Credits	θ		
	quired of program graduates to gain employment? ution seek accreditation for this program?		
Add any addition information you would like brown to the attention	ional ou ught		
CUE/ CGE here	e ditional information you would like brought to the		

Melodi D. Guilbault (guilbaul) (05/04/22 3:14 pm): MGMT 630 should not be deleted - just Reviewer MIS 680 Comments

Key: 133

Program Change Request

Date Submitted: 04/01/22 2:03 pm

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

Last approved: 07/09/21 10:11 am

Last edit: 04/01/22 2:03 pm

Changes proposed by: Melodi D. Guilbault (guilbaul)

Catalog Pages Using

this Program

Master of Science in Management (MSM)

Department(s) /	Department	College
College(s)	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 Newark

the program will be

offered

CIP Code

Effective Catalog 2022-2023

Edition

Faculty Senate

Review required?

Related

Department(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. 04/01/22 2:18 pm Melodi D. Guilbault
 - (guilbaul): Approved for MGMT Chair
- 2. 04/06/22 9:55 am
- Mesfin Ayne (ayne):
 Approved for AIS
- 3. 04/06/22 10:00 am
- Oya Tukel (tukel):
 Approved for SM
 - Dean

History

1. Dec 21, 2020 by Michael S Koskinen 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

(michaelk)

- 2. May 12, 2021 by Michael S Koskinen (michaelk)
- 3. Jul 9, 2021 by Mesfin Ayne (ayne)

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.

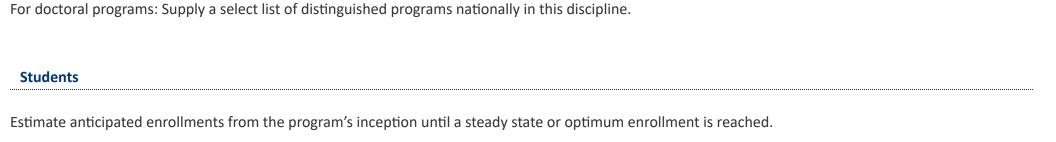
Relationship to the University and State Master Plans

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



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).

Curriculum

The MSM program blends technical expertise with fundamental management knowledge.

Concentration Areas:

Business Analytics

Global Project Management

Web Systems and Media

Financial Technology (FinTech)

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)**.

Core Courses

ACCT 615	Management Accounting	3

FIN 600 Corporate Finance I

HRM 601 Organizational Behavior 3

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Information Systems Principles
                                                                     3
MIS 645
or IS 677
                 Information System Principles
MRKT 620
                 Global Marketing Management
                                                                     3
Select 15 credits from one area:
                                                                     15
   Global Project Management 1
                 Managerial Economics
   ECON 610
   EM 636
                 Project Management
   or MGMT 641 Global Project Management
  EM 637
                 Project Control
  EM 691
                 Cost Estimating for Capital Projects
  IE 618
                 Engineering Cost and Production Economics
  IE 659
                 Supply Chain Engineering
   <del>IS 614</del>
                 Command and Control Systems
  IS 663
                 System Analysis and Design
  IS 684
                 Business Process Innovation
   Web Systems and Media
                 Web Systems Development
  IS 601
   IS 661
                 User Experience Design
  <del>IS 664</del>
                 Customer Discovery
  IS 688
                 Web Mining
                 Web Services and Middleware
  <del>IS 690</del>
  MRKT 645
                 Digital Marketing Strategy
  PTC 601
                 Advanced Professional and Technical Communication
  PTC 605
                 Elements of Visual Design
                 Advanced Information Design
   PTC 606
  PTC 650
                 eLearning Design for Mobile
   Business Analytics <sup>2</sup>
  CS 634
                 Data Mining
  CS 644
                 Introduction to Big Data
   EM 636
                 Project Management
   or MGMT 641 Global Project Management
  <del>IS 687</del>
                 Transaction Mining and Fraud Detection
  IS 631
                 Enterprise Database Management
  IS 688
                 Web Mining
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Distribution Logistics
  MGMT 625
                Decision Analysis
  MGMT 630
  MGMT 635
                Data Mining and Analysis
                Knowledge Management
  MGMT 650
  MIS 648
                Decision Support Systems for Managers
  MRKT 645
                 Digital Marketing Strategy
   Financial Technology <sup>3</sup>
  FIN 611
                Intro to Topics in Fin Tech
  FIN 616
                Data Driven Financial Modeling
  FIN 620
                Adv Financial Data Analytics
  FIN 641
                Derivatives Markets
  FIN 624
                Corporate Finance II
                Financial Investment Institutions
  FIN 626
                Data Mining and Analysis
  MGMT 635
  MGMT 735
                Deep Learning in Business
Total Credits
                                                                   30
One course must be either ECON 610 Managerial Economics or MGMT 641 Global Project Management
One course must be MGMT 630, MGMT 635, MIS 648, or MRKT 645.
 One course must be FIN 611 and two courses must be FIN 616, FIN 620 or MGMT 735.
One course must be FIN 611 and two courses must be FIN 616, FIN 620 and MGMT 735
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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

MATH 661

Applied Statistics

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

Key: 132

Program Change Request

Date Submitted: 03/31/22 1:47 pm

Viewing: EN-MTS-MS EN-MTSC-MS: M.S. in Materials Science and

Engineering

Last edit: 04/03/22 3:48 pm

Changes proposed by: David Venerus (venerus)

Catalog Pages Using

this Program

Department	College

Newark College of Engineering (EN)

Name of Program

Department(s) /

College(s)

M.S. in Materials Science and Engineering

Chemical and Materials Engr (CME)

M.S. in Materials Science and Engineering

Academic Level(s)

Doctoral

Graduate

Degree Designation

MS

Campus(es) where

Newark

the program will be

offered

CIP Code

Effective Catalog

2022-2023

Edition

Faculty Senate

Review required?

In Workflow

- 1. CME 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. 03/31/22 1:40 pm Lisa Axe (axe):
 - Rollback to Initiator
- 2. 03/31/22 1:49 pm Lisa Axe (axe):
- Approved for CME
- Chair
- 3. 04/01/22 10:47 am Mesfin Ayne (ayne):

 - Approved for AIS
- 4. 04/27/22 11:03 am Kam Moshe (kam):
 - Approved for EN
 - Dean

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 program is offered in two options, the Materials the Materials Science option and the Materials Engineering Option and the Materials Science Option.

option. These programs options are administered by NCE (Newark College of Engineering) the CSLA (College of Science and CSLA (College of Science Liberal Arts) and Liberal Arts) NCE (Newark College of Engineering) colleges, respectively. A joint committee comprised of involving CSLA and NCE and CSLA faculty oversee the will be in charge of overseeing this program.

Materials Engineering Option

Administered by the Chemical and Materials Engineering Department, NCE

The master's degree is a valued professional credential, offered on a full-time or part-time basis. Applicants are expected to have a baccalaureate degree in engineering (chemical, mechanical, electrical, civil, or biomedical) or in physics or chemistry or equivalent with a minimum GPA of 3.0. Students with undergraduate degrees in biology or other STEM disciplines may also be admitted on condition that additional bridge courses may be required. International students must achieve a TOEFL score of at least 550 (paper-based); 213 (computer-based); 79 (internet-based). A quantitative section of GRE must be at the level approved by NCE.

Thirty credit hours are required for the degree. A thesis is optional.

Curriculum

Core courses (12 credit hours)

Cross-listed courses Any cross-listed courses will not be offered simultaneously. simultaneously, but only one of the two will be offered at a time.

Core Courses

MTEN 610Found of Materials Sci & Engr3or MTSE 601Fundamentals of Engineering MaterialsMTEN 611Diffusion & Solid State Kineti3or MTSE 655Diffusion and Solid State KineticsMTEN 612Thermodynamics of Materials3or MTSE 602Thermodynamics of Materials3MTEN 613Characterization of Materials3

Elective Courses and MS Thesis (18 credit hours: Elective courses by tracks (6 credits) Electives fit different tracks. Each track includes at least fourcourses. At

least two courses from one of the tracks must betaken. Exceptions are to be approved by the ProgramAdvisor. Tracks Other electives and MS thesis

(12credits:six courses, four courses or four courses two courses and thesis)

Soft materials and polymer composites

MTSE 681 Composite Materials

BME 672 Biomaterials

	CHE 681	Course CHE 681 Not Found	
	ME 679	Polymer Processing Techniques	
Ha	rd materials	and alloys	
	ME 626	Fatigue Fracture of Solids	
	ME 620	Mechanics of Materials	
	MTSE 725	Independent Study I	
	ME 675	Mechanics of Fiber Composites	
	CHE 702	Selected Topics in Chemical Engineering II	
	ME 621	Advanced Mechanics of Material	
Na	nomaterials/	'macromolecules/interfaces	
	CHE 619	Nano-scale Characterization of Materials	
	CHE 714	Micromechanics of Part Tech Pr	
	MTEN 711	Nanocomposite Materials	
	MTEN 712	Nanomaterials	
	or CHEM 748	8Nanomaterials	
Ele	ctronic and բ	photonic materials	
	MTSE 722	Science and Technology of Thin Films	
	ECE 657	Semiconductor Devices	
	ECE 659	Fabrication Principles of Electronic and Optoelectronic Devices	
	ECE 626	Optoelectronics - Nonlinear Modulators for Optical Communication	
Sul	<u>ostitutions m</u>	ust Exceptions are to be approved by advisor. the Program Advisor.	
Co	urses listed a	bove from various tracks can be taken as electives. Additional electives include	e:
<u>B</u> 1	ME 651	Principles of Tissue Engineering	3
<u>BN</u>	<u>1E 672</u>	<u>Biomaterials</u>	<u>3</u>
<u>B</u> 1	∕IE 680	BioMEMS Design and Applications	3
<u>CE</u>	632	Prestressed Concrete Design	3
<u>CE</u>	636	Mechanics and Stability of Structures	3
<u>CE</u>	641	Engineering Properties of Soils	3
CH	<u>E 619</u>	Nano-scale Characterization of Materials	<u>3</u>
СН	E 632	Course CHE 632 Not Found	
<u>C</u>	<u> 1E 654</u>	Corrosion	3
<u>C</u>	<u> 1E 683</u>	Polymer Processing	3
or	ME 679	Polymer Processing Techniques	
<u>C</u>	<u>1E 684</u>	Materials and Process Selection for Polymer Product Design	3

<u>CHE 702</u>	Selected Topics in Chemical Engineering II	3
CHE 682	Course CHE 682 Not Found	
<u>CHE 709</u>	Adv Separation Processes	3
<u>CHE 710</u>	Adv Membrane Separation Proc	3
<u>CHE 714</u>	Micromechanics of Part Tech Pr	<u>3</u>
<u>CHE 722</u>	Additive Manufacturing & Appl	3
<u>CHE 750</u>	Environmental Catalysis	3
<u>CHE 756</u>	Industrial Catalysis	3
<u>CHE 775</u>	Molecular Simulations in CHE	<u>3</u>
<u>CHE 781</u>	Polymerization-Principles and Practice	<u>3</u>
<u>CHE 782</u>	Polymer Structures and Properties	<u>3</u>
ECE 626	Optoelectronics - Nonlinear Modulators for Optical Communication	<u>3</u>
ECE 657	Semiconductor Devices	<u>3</u>
ECE 659	Fabrication Principles of Electronic and Optoelectronic Devices	<u>3</u>
<u>ME 620</u>	Mechanics of Materials	<u>3</u>
<u>ME 621</u>	Advanced Mechanics of Material	<u>3</u>
<u>ME 626</u>	Fatigue Fracture of Solids	<u>3</u>
<u>ME 675</u>	Mechanics of Fiber Composites	<u>3</u>
<u>ME 678</u>	Engineering Design of Plastic Products	3
ME 679	Polymer Processing Techniques	
<u>ME 714</u>	Principles of Particulate Multiphase Flows	3
MTEN 631	Course MTEN 631 Not Found	
MTEN 633	Course MTEN 633 Not Found	
MTEN 711	Nanocomposite Materials	<u>3</u>
MTEN 712	<u>Nanomaterials</u>	<u>3</u>
<u>or CHEM 748</u>	<u>Nanomaterials</u>	
<u>MTEN 700B</u>	Master's Project	3
<u>MTEN 701B</u>	Masters Thesis	3
MTSE 610	Mechanical Properties of Materials	<u>3</u>
MTSE 681	Composite Materials	3
MTSE 722	Science and Technology of Thin Films	<u>3</u>

Will the institution seek accreditation for this program?

Add any additional

Elimination of Tracks and expansion of Elective Course list will facilitate student progress

information you

through the program.

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

Lisa Axe (axe) (03/31/22 1:40 pm): Rollback: Please add the three new courses.

Comments

MTSM Motion

Subject to approval, up to 15 credits from a previously completed NJIT MBA can be applied toward the completion of the 30-credit MS in Management program.