NJIT
New Jersey's Science & Technology University

Proposal for a Revised Degree Program: Departmental Approvals

Degree Program Revision (include name): MS IS   College: YWCC   Dept: Informatics

Date Proposed: 11/9/2017

Departmental Approval (include name) and Date: _[signature]_   11/2/2017

Dean's Approval and Date: _RC 11/2/17_

Date to be presented to the Committee on Graduate Education: _____

Additional Approvals and Dates (if any): (see below) _____

Department Chair	Signature and Date
Y. F. BROOK WU	_[signature]_ 11/02/2017

When will the revision be offered?

☑ Spring 20_18_   ☐ Summer 20__   ☐ Fall 20__

GRADUATE PROGRAM CHANGE

This information will be used to update the on-line University Catalog upon review and approval of the Graduate Council**.**

College: _____CCS_____ Program: MS_in Information Systems_____

PROGRAM CHANGE

Description of Change: Allow choice in core courses of IS 661 or IS 664.   Also added several approved

electives.

Semester change will take effect:_ Spring 2018 _____

REQUIRED COURSE APPROVALS

Department Chairperson: _____   Date: 11/2/2017____

CGE Chair: _____   Date: ──────────────

Date Catalog updated: _____

GRADUATE PROGRAM CHANGE

[CHANGES IN BOLD AND UNDERLINED]

M.S. in Information Systems

Code	Title	Credits
Course List		
Code	**Title**	**Credits**
IS Core Courses		
IS 601	Web Systems Development	3
IS 663	System Analysis and Design	3
IS 631	Enterprise Database Management	3
IS 665	Data Analytics for Info System	3
IS 684	Business Process Innovation	3
Select one of the following User Experience courses ³:		**3**
IS 661	User Experience Design	~~3~~
IS 664	**Customer Discovery**	
Select one of the following Analytics courses:		3
IS 634	Information Retrieval	
IS 687	Transaction Mining and Fraud Detection	
IS 688	Web Mining	
Electives and Specialization Areas ¹		
Select three of the following electives or ²		9
Select IS 700B and two of the following electives or		
Select IS 701 and one of the following electives:		
Data Analytics		
IS 634	Information Retrieval	
IS 687	Transaction Mining and Fraud Detection	
IS 688	Web Mining	
CS 602	Java Programming	
CS 632	Advanced Database System Design	
CS 634	Data Mining	

GRADUATE PROGRAM CHANGE

Code	Title	Credits
CS 636	**Data Analytics with R Program**	
CS 644	**Introduction to Big Data**	
CS 675	Machine Learning	
CS 731	Applications of Database Systems	
CS 732	Advanced Machine Learning	
CE 602	Geographic Information System	
MATH 644	**Regression Analysis Methods**	
MATH 660	**Introduction to statistical Computing with SAS and R**	
MATH 678	**Intro to Stat Methods in Data**	
MGMT 635	Data Mining and Analysis	
MGMT 682	**Business Research Methods I**	
MGMT 683	**Business Research Methods II**	
PTC 628	Analyzing Social Networks	
Business Decision Making		
IS 677	Information System Principles	
IS 678	IT Service Management	
ACCT 615	Management Accounting	
FIN 600	Corporate Finance I	
HRM 601	Organizational Behavior	
MIS 648	Decision Support Systems for Managers	
MIS 680	Management Science	
MGMT 620	Management of Technology	
MGMT 630	Decision Analysis	
MGMT 650	Knowledge Management	
MGMT 685	Operations Research and Decision Making	
MGMT 688	Information Technology, Business and the Law	
MGMT 710	Forecasting Methods for Business Decisions	
MRKT 620	Competing in Global Markets	
MRKT 645	Internet Marketing Strategy	

GRADUATE PROGRAM CHANGE

Healthcare Informatics

CS 639	Elec. Medical Records: Med Terminologies and Comp. Imp.
IE 686	Intro to Healthcare Systems
IE 687	Healthcare Enterprise Systems
IE 688	Healthcare Sys Perfor Modeling
PTC 640	**Health Communications.**
R834 581	Health Systems and Policy
R834 582	Health Care Management
R834 659	Healthcare Finance

User Experience Design

IS 661	**User Experience Design** [3]
IS 664	Customer Discovery [3]
IS 686	Pervasive Computing: An HCI Perspective
IS 735	Social Media
IE 661	Man-Machine Systems
IE 662	Cognitive Engineering
IE 664	Advanced Ergonomics
PTC 605	Elements of Visual Design
PTC 606	Advanced Information Design
PTC 629	Theory and Practice of Social Media
PTC 650	ELearning Design for Mobile

Security and Network Management

IS 680	Information Systems Auditing
IS 681	Computer Security Auditing
IS 682	Forensic Auditing for Computing Security
IS 687	Transaction Mining and Fraud Detection
CS 608	Cryptography and Security
CS 645	Security and Privacy in Computer Systems
CS 646	Network Protocols Security
CS 647	Counter Hacking Techniques
CS 651	Data Communications
CS 652	Computer Networks-Architectures, Protocols and Standards

CS 656	Internet and Higher-Layer Protocols
CS 696	Network Management and Security
CS 708	**Advanced Data Security and Privacy**
CS 755	**Security and Privacy in Wireless Networks**
CS 756	**Mobile Computing and Sensor Networks**
IT 620	Wireless Networks Security and Administration
IT 640	Network Services Administration

Systems Analysis and Design

IS 664	Customer Discovery
IS 676	Requirements Engineering
IS 685	Enterprise Architecture and Integration
CS 673	Software Design and Production Methodology
CS 683	Software Project Management
CS 684	Software Testing and Quality Assurance
CS 685	Software Architecture
EM 636	Project Management
EM 637	Project Control
MRKT 636	**Design and Development of High Technology Products**

Web Systems

IS 634	Information Retrieval
IS 664	Customer Discovery
IS 683	Web Systems Development
IS 688	Web Mining
IS 690	Web Services and Middleware
PTC 605	Elements of Visual Design
PTC 628	Analyzing Social Networks
PTC 632	Content Management and Information Architecture

Build Your Own Specialization

Students may propose a coherent set of courses that have a common thread related to an area that you are interested in.
The MS IS advisor approves the proposed specialization.

Total Credits	**30**

Course List

[1] Please consult the professor or academic advisor early to determine the best electives to support your work.

GRADUATE PROGRAM CHANGE

[2] Students may optionally choose 2 or more courses from a single area, which will constitute a specialization. Students will choose 3 electives if course only option, 2 electives if taking IS 700B Master's Project, or 1 elective if taking IS 701B Master's Thesis. We strongly encourage students to design and conduct a Master Project or Master Thesis with an Information Systems professor. If you are considering a Project or Thesis, please consult the professor early to determine the best electives to support your work. A Master Project or Master Thesis can be considered part of a specialization with the MS Advisor's permission.

[3] Students considering a Master's Project or Thesis with the User Experience specialization are encouraged to take **both IS 661 User Experience Design and IS 664 Customer Discovery - one as a core course and the other** as an elective.

Updated Program after Updating

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Graduate Course Change/Addition Form
Registrar created; modified by LB 01/21/11

GRADUATE PROGRAM CHANGE

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