### Management Information Systems at Katz:

## Dual-Degree MBA-MS/MIS Program

### August 2013



### MIS Focus at Katz

- MIS Focus at Katz:
  - Integration of Information
    Systems and Management
  - Learn to manage in technologydriven environments
  - Adding value to organizations through IT
- Several options:
  - 1. Dual-degree MBA-MS in MIS
  - 2. MBA program with an MIS Concentration
  - 3. MIS Electives as Supplemental Courses



UNIVERSITY OF PITTSBURGH JOSEPH M.KATZ GRADUATE SCHOOL OF BUSINESS

### Katz-MIS Enabled Careers: Sample Placements

– Business Analyst



- Business Consultant **Deloitte.**
- Information Manager Seristol-Myers Squibb
- Technology Process Analyst
- Information Risk Analyst **ILERNST&YOUNG**
- System Analyst HIGHMARK.

KPMG

International

- Consultant





# Who are the faculty?

Sherae Daniel



Mike Donohoe •



**Richard Franklin** •



- **Dennis Galletta** igodol
- **Bill Hefley** •





- **Chris Kemerer**
- Jim Kimpel •



Laurie Kirsch



Narayan Ramasubbu





# World-Class Research Faculty

- IS faculty are consistently ranked high in terms of research productivity:
  - 4<sup>th</sup> of 89 top schools in 2006 U. of Dallas study for research productivity
    - 2<sup>nd</sup> of the 89 when counting per faculty member
  - 7<sup>th</sup> in world according to Robinson-Adler study of citations of our research
  - Top 10 in the Academy of Management Journal for MIS research productivity (2000)



# Bureau of Labor Statistics

- Computer-related occupations are projected to add 785,700 new jobs from 2008-2018
- Growth is expected to be more than 2x the average of all occupations
- Technology change fuels this growth



## IS + another concentration = \$\$

### Finance

- -Tech is arguably the single most important industry influencing market cycles.
- -Investing? Evaluating? Loaning? Trading?
  - It's all enabled by IT



# IS + another concentration = \$\$

### **Operations**

-IT enables modern process design and supply chain innovation.



## IS + another concentration = \$\$

### Marketing

- Modern marketing is all about technology including
  - CRM
  - Data mining
  - Analytics
  - Big Data



## Studying MIS at Katz

### **1. MBA program with an MIS Concentration**

9 credits of MIS courses

### 2. Dual-degree MBA-MS in MIS

- Additional 15 credits to the existing MBA degree (requires 9 or more MIS credits as MBA electives)
- 51 credits + 15 = 66 total
- 3. MIS elective courses
  - MBA students can take MIS courses on an individual basis



## The MBA/MIS

### Dual Degree Program



### MBA/MS-MIS Value Proposition

- The objective of the MBA/MS-MIS program is to:
  - Leverage your background and experience with Information Systems
  - Provide a foundation of management knowledge, skills, and experience
  - Develop and document your capabilities in IS leadership and IT enabled problem-solving
- Prepare you to succeed as a IS leader in global enterprises



### Candidate Background

Information Technology Knowledge, Information Systems Skills, and Development Experience

Other Work Experience



### Business Foundations – The Katz MBA

Information Technology Knowledge, Information Systems Skills, and Development Experience

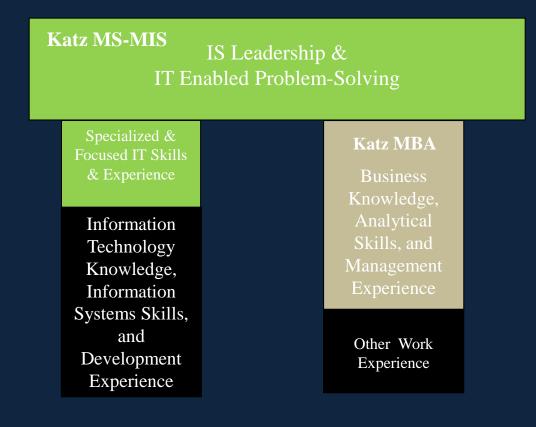
#### Katz MBA

Business Knowledge, Analytical Skills, and Management Experience

Other Work Experience



### Bridging the IS/Management Gap – The Katz MS-MIS





### MBA/MS-MIS Dual Degree Curriculum

- Core Courses
  - IS Technology Core (9 credits)
    - Database Management
    - Technology Enabled Business Transformation
    - Business Systems Platforms
  - IS Management Core (9 credits)
    - Project Management
    - IS Planning
    - Technology Innovation, Adoption & Diffusion
  - If you complete the MS-MIS core, *you are exempted from BMIS* 2409
- IS Practicum (3 credits)
- Concentration, Specialization, Certificates



# **IS Practicum**

- Full-time MBA/MS-MIS students will register for the MIS Practicum Lab (BMIS 2055) their first term in the program
- No credits for lab.
- FT students will then register for the MIS Practicum (BMIS 2056) in the fall term of their second year.
- They will receive 3 credits upon completion of this course.



# Concentrations, Specializations & Certificates

- Concentrations
  - Marketing
  - Finance
  - HR
  - Supply Chain/Operations
  - Accounting
- Specialization options
  - Business Analysis
  - IT Consulting
  - Product Development Management
  - IS Management

Certificates

- Global Supply Chain Management
- Technology, Innovation, and Entrepreneurship
- Organizational Leadership
- Global Management
- Corporate Valuation
- Corporate Financial Management
- Investments and Trading
- Project Management
- Digital Marketing



# Studying MIS at Katz.

It's the Right Time.





#### FULL-TIME MBA/MS-MIS PROGRAM CURRICULUM PLAN

#### DEGREE REQUIREMENTS

Upon formal admission to the full-time MBA/MS-MIS program, a student must fulfill the following requirements in order to receive both degrees of this dual-degree program:

- 1) A minimum of 66 credits of approved graduate-level coursework
- 2) The appropriate distribution of required core courses and elective courses
- 3) A minimum cumulative quality point average (QPA) of 3.0 (B)

#### FULL-TIME MBA/MS-MIS PROGRAM SAMPLE SCHEDULE

Full-Time MBA/MS-MIS students are eligible to enroll into a maximum of 18 credits per semester.

#### **\*** Year One, Fall Term – 15-18 credits

- BMIS 2588 Database Management (3 credits)
- BMIS 2055 MIS Practicum Lab (0-credit practicum course)
- BACC 2401 Financial Accounting (3 credits)
- BECN 2401 Economic Analysis for Managerial Decisions (3 credits)
- BQOM 2401 Statistical Analysis: Uncertainty, Prediction & Quality Improvements (3 credits)
- BOAH 2409 Organizational Behavior (1.5 credits)
- BFIN 2409 Financial Management 1 (1.5 credits)
- BMKT 2409 Marketing Management (1.5 credits)
- 1.5 elective credits of your choice

#### **\*** Year One, Spring Term – 18 credits

- BMIS 2689 Technology Enable Business Transformation (3 credits)
- BMIS 2537 Business Systems Platforms (3 credits)
- BSEO 2401 Business Ethics & Social Performance (1.5 credits)
- BQOM 2421 Decision Technology in Manufacturing & Operations Management (1.5 credits)
- Elective credits of your choice

#### **\*** Year Two, Fall Term – 18 credits

- BMIS 2034 Information Systems Planning (3 credits)
- BMIS 2051 Project Management (3 credits)
- BMIS 2579 Technology Innovation, Adoption, and Diffusion (3 credits)
- BMIS 2056 MIS Practicum (3 credits)
- Elective credits of your choice

#### ✤ Year Two, Spring Term – 15-18 credits

- BSPP 2409 Strategic Management (1.5 credits)
- BIND 2444 Competitive Management Simulation (3 credits)
- Elective credits of your choice

#### MBA REQUIRED COURSES FOR FULL-TIME MBA/MS-MIS STUDENTS

- BACC 2401 Financial Accounting
- BECN 2401 Economic Analysis for Managerial Decisions
- BQOM 2401 Statistical Analysis: Uncertainty, Prediction & Quality Improvement
- BOAH 2409 Organizational Behavior Leadership and Group Effectiveness
- BFIN 2409 Financial Management 1
- BMKT 2409 Marketing Management
- BQOM 2421 Decision Technologies in Manufacturing & Operations Management
- BSPP 2409 Strategic Management
- BSEO 2401 Business Ethics & Social Performance
- BIND 2444 Competitive Management Simulation
- BMIS 2409 Information Systems Exempt upon completion of MS-MIS core required courses

#### MIS REQUIRED COURSES FOR FULL-TIME MBA/MS-MIS STUDENTS

- BMIS 2588 Database Management
- BMIS 2689 Technology Enable Business Transformation
- BMIS 2537 Business Systems Platforms
- BMIS 2051 Project Management
- BMIS 2034 Information Systems Planning
- BMIS 2679 Technology Innovation, Adoption, and Diffusion
- BMIS 2055 MIS Practicum Lab
- BMIS 2056 MIS Practicum

#### COURSE SELECTION AND SEQUENCING

In order to make the most of the Katz MBA experience, it befits each student to work with his/her designated academic advisor, Career Management advisor, and Katz faculty so as to align elective coursework with professional aspirations. Students may reference course offerings and descriptions for a given term within the 'Schedules and Course Abstracts' section via <u>StudentNet</u>.

The Academic and Career Advising Guide, also available via StudentNet, is a powerful reference tool that students can utilize to research career tracks and functional areas within a given concentration; recommended course selection and sequencing; co-curricular activities; and additional professional resources.

#### Full-Time MBA/MS-MIS Curriculum Plan

MBA Core Total: 21 credits MS-MIS Core Total: 21 credits + MIS Practicum Lab MBA/MS-MIS Electives: 24 credits MBA/MS-MIS Total: 66 credits

#### MBA Required Courses (21 credits)

Course Number	Course Title	Credits	Term	Complete		
BACC 2401	Financial Accounting	3.0				
BECN 2401	Economic Analysis for Managerial Decisions: Firm and Markets	3.0				
BFIN 2409	Financial Management 1	1.5				
BMKT 2409	Marketing Management	1.5				
BOAH 2409	Organizational Behavior, Leadership and Group Effectiveness	1.5				
BQOM 2401	Statistical Analysis: Uncertainty, Prediction and Quality Improvement	3.0				
BSPP 2409	Strategic Management	1.5				
BQOM 2421	Decision Technologies in Manufacturing and Operation Management	1.5				
BSEO 2401	Business Ethics & Social Performance	1.5				
BIND 2444	Competitive Management Simulation	3.0				
BMIS 2409	Information Systems	Exempt upon completion of MS-MIS Core				

Course Number	Course Title	Course Title Credits			
BMIS 2588	Database Management	3.0			
BMIS 2689	Technology Enabled Business Transformation	3.0			
BMIS 2537	Business Systems Platforms	3.0			
BMIS 2051	Project Management	3.0			
BMIS 2034	IS Planning	3.0			
BMIS 2679	Technology Innovation, Adoption, and Diffusion	3.0			
BMIS 2999	MIS Practicum Lab	0.0			
BMIS 2056	MIS Practicum	3.0			

#### **MS-MIS Required Courses (21 credits + MIS Practicum Lab)**

#### MS-MIS Electives (9 eredits-minimum)

Course Number	Course Title	Credits	Term	Complete

#### **MBA Electives**

Course Number	Course Title	Credits	Term	Complete

#### MBA/MS-MIS Program Totals

	Required Credits	TOTAL
MBA Credits (Core plus elective coursework)	36	21
MIS Credits (Core plus elective coursework)	30	21
PROGRAM TOTAL	66	42

#### Management Information Systems

Typically the amount of prior work experience plays an integral role in the level with which you are hired within an organization, especially in the big consulting firms. Whether you are a career starter, career switcher or career enhancer, Katz alumni research shows that those who concentrated in MIS or those who decided to pursue the dual degree MBA/MS-MIS are hired into the following functional areas:

Business Analysis IT Consulting Product Development Management (MIS) IS Management

#### **Co-Curricular activities**

Since your ultimate goal is to find a job upon graduation, you should pay particular attention to things that differentiate you from other MBA candidates on your resume. The below co-curricular activities can be utilized to not only differentiate you, but to also showcase your teamwork and leadership abilities.

#### **Professional organizations**

Outside of Katz, there are some local professional associations that can provide excellent networking opportunities and also look good on your resume.

The Association of Information Technology Professionals Information Systems Security Association Information Systems Audit and Control Association International Institute of Business Analysis Pittsburgh Technology Council Information Technology Infrastructure Library Association for Information Systems itSMF USA Product Development and Management Association (PDMA)

#### **External Certifications**

PMP Certification SAP Certification NPDP Certification

#### Clubs

Both the Business Technology club and Consulting club are ideal for MIS concentrations.

#### **Additional Professional Resources**

<u>Case in Point</u> – Marc Cosentino, President, has over 23 years of case interview prep experience. His book is entitled, *"Case in Point: Complete Case Interviewing Preparation"* at is currently is \$25 plus shipping and handling.

#### SAP student website

Consulting interviews usually have a case interview component. Because of this, it is recommended that you practice and master your case interviewing skills. A helpful and quick review guide is the <u>Vault Guides on Case Interviewing and Case Interviewing Practice</u> – FREE through Vault link in Career Connection.

#### **Business Analysis**

Within consulting firms, business analysts work with experienced consultants to develop models, perform complex analyses, and work on research assignments at both the office and client sites. Analysts often travel while on assignments, undertaking a broad range of activities, while gaining exposure to the business world. They may also participate in marketing activities and the preparation of proposals for new engagement opportunities.

Outside of consulting firms, analysts help their companies solve business challenges by collecting, reviewing and analyzing data that enables senior management to make informed decisions. They often work closely with both internal and external stakeholders to enable improved business planning and forecasting. In more technical business analysis, an analyst may be controlling and communicating changes to requirements documentation, developing test plans, test scripts and test conditions, and even provide end-user support in post-deployment phases.

Positions: Business Analyst, IT Analyst, Systems Analyst, Quality Analyst, Data Analyst

Key skills needed: Planning and prioritization, project management, analytical problem solving and quantitative analysis, budgeting, forecasting, excellent oral and written communication, trend analysis, process analysis and business intelligence.

Some companies that have typically hired Katz MBAs into the Business Analysis area include: Highmark, Federated Investors, Wipro, EQT, Thomson Reuters, University of Pittsburgh, Cognizant Technologies, UPMC, Tube City.

Courses	Credits	Term likely to be
		offered
BMIS 2034-Information Systems Planning	3.0	Fall
BMIS 2551-Project Management Concepts and Processes	3.0	Spring
BMIS 2074-Strategic Information Technology in Global Supply Chains	1.5	Spring
BMIS 2537-Business Systems Platforms	3.0	Spring
BMIS 2588-Database Management	3.0	Fall
BMIS 2678-E-Commerce	3.0	Fall
BMIS 2679-Technology Innovation, Adoption, and Diffusion	3.0	Spring
BMIS 2689-Technology Enabled Business Transformation	3.0	Spring
BMIS 2053- Human Computer Interaction	3.0	Spring
BIND 2400-Consulting Field Project	3.0	Fall/Spring

#### Suggested courses

Suggested Katz certificates: Technology, Innovation, and Entrepreneurship; Project Management; Global Management

#### Information Technology (IT) Consulting

IT consultants help clients find real and lasting solutions to problems by providing new information and advice. Through in-depth thought, brainstorming, and analysis, they help organizations become better by challenging and persuading them to adopt new ideas and practices. Consultants tend to work long hours and travel extensively.

Positions: Consultant, Senior Consultant, Associate, Senior Associate, IT Consultant, Business Technology Consultant

Key skills needed: Planning and prioritization skills, project management, business/technical savvy, analytical problem solving and critical thinking and possess strong verbal and written communication skills

Some companies that typically hire in Information Technology (IT) Consulting: Deloitte, PricewaterhouseCoopers (PwC), Ernst & Young (E&Y), KPMG, Cognizant, SDLC Partners, CapGemini, iGate.

#### Suggested courses

Courses	Credits	Term likely to
		be offered
BIND 2400-Consulting Field Project	3.0	Fall/Spring
BMIS 2034-Information Systems Planning	3.0	Fall
BMIS 2551-Project Management Concepts and Processes	3.0	Spring
BMIS 2074-Strategic Information Technology in Global Supply Chains	1.5	Spring
BMIS 2537-Business Systems Platforms	3.0	Spring
BMIS 2588-Database Management	3.0	Fall
BMIS 2689-Technology Enabled Business Transformation	3.0	Spring

Suggested Katz certificates: Technology, Innovation, and Entrepreneurship; Project Management; Global Management; Organizational Leadership

#### **Product Development Management (MIS)**

Product Development Management involves multiple areas within the technology lifecycle of product or service. Combining expertise in MIS, marketing and strategy, these professionals are subject matter experts that work closely with both internal and external stakeholders to develop, grow, maintain and/or sell a product or service line.

Positions: Popular job titles include, but are not limited to, IT Product Manager, IT Product Developer, Technology Product Manager, and Marketing Product Manager.

Key skills needed: Ability to bridge both the technical and business sides of a product or service, excellence verbal and written communication, project management, analytical problem solving, the ability to work with multiple departments (sometimes in a matrix fashion), creative thinking, marketing and strategy.

Some companies that typically hire in Product Development Management: Microsoft, NetApp, Samsung, Infogroup, Bosch, Philips, Google, Adobe, VMWare, Expedia, EMC, AOL, Amazon.

Courses	Credits	Term likely to be
		offered
BMKT 2526-Product Development and Management	3.0	Spring
BSPP 2111-Commercializing New Technologies	3.0	Fall/Spring
BMIS 2034-Information Systems Planning	3.0	Fall
BMIS 2537-Business Systems Platforms	3.0	Fall
BMIS 2679-Technology Innovation, Adoption, and Diffusion	3.0	Spring
BMKT 2531-Marketing Research	3.0	Fall
BMKT 2509-Marketing Planning and Strategy	1.5	Fall/Spring
BMKT 2530-Services Marketing: Strategies	1.5	Fall/Spring
BMIS 2551-Project Management Concepts and Processes	3.0	Spring
BOAH 2532-Negotiations, Teamwork, and Change	1.5	Fall/Spring/Summer
BACC 2528-Managerial Accounting	1.5	Spring
BSEO 2525-Competitive Intelligence	1.5	Spring

#### Suggested courses

Suggested Katz certificates: Technology, Innovation, and Entrepreneurship; Project Management; Global Management; Organizational Leadership

#### **Information Systems (IS) Management**

Computer and information systems managers play a vital role in the technological direction of their organizations because they do everything from constructing the business plan to overseeing network and internet operations. IS professionals not only apply their broad knowledge of information technologies and business issues, but speak to their vision of where technology can take organizations. IS Managers do not tend to travel as much as IT Consultants, but they do tend to work longer hours and can sometimes be on call 24/7.

Positions: Project manager, senior project manager, program manager, IS manager, senior IS manager, IT manager and technology project manager.

Key skills needed: Leadership, planning and prioritization skills, project management, business/technical savvy, finance, human resources and possess strong verbal and written communication skills.

Some companies that typically hire in Information Systems (IS) Management: Microsoft, Samsung, Volkswagen, PNC, UPMC.

Courses	Credits	Term likely to
		be offered
BMIS 2034-Information Systems Planning	3.0	Fall
BMIS 2551-Project Management Concepts and Processes	3.0	Spring
BMIS 2074-Strategic Information Technology in Global Supply Chains	1.5	Spring
BMIS 2679-Technology Innovation, Adoption, and Diffusion	3.0	Spring
BSEO 2511-Management of Strategic Alliances 1	1.5	Spring
BMKT 2531-Marketing Research	3.0	Spring
BQOM 2549-Strategic Cost Analysis	1.5	Spring
BOAH 2522-Compensation	1.5	Spring
BOAH 2537-Conflict Resolution in the Workplace	1.5	Fall
BQOM 2546-Project Management Fundamentals and Analytics	1.5	Fall/Spring
BQOM 2534-Strategic Procurement and Sourcing Management	1.5	Spring
BSEO 2315-Business Law	3.0	Spring/Summer
BOAH 2521-Staffing Organizations	1.5	Spring
BOAH 2423-Managing Human Capital	3.0	Spring
BOAH 2456-Managing Offshore Outsourcing	1.5	Spring
BIND 2400-Consulting Field Project	3.0	Fall/Spring

#### Suggested courses

Suggested Katz certificates: Technology, Innovation, and Entrepreneurship; Project Management; Global Management; Organizational Leadership

#### Course Offering Schedule 2141 - FALL TERM IS COURSES

#### Academic Year 2013-2014

#### Fall 1 - Fall 2: ALL Required

Subject	Cat Num	n CI Num	Course Title	Credits	Days	Time	Bldg / Room	Instructor
BMIS	2056	14539	Mgt Information Systems Pracm {This course is for MBA/MS-MIS AND MS-MIS students ONLY}	3.00	Μ	06:20pm - 09:20p	LAWRN 203	Narayan Ramasubbu

#### Fall 1 - Fall 2: ALL Elective

Subject	Cat Num	CI Num	Course Title	Credits	Days	Time	Bldg / Room	Instructor
BMIS	2034	23909	Information Systems Planning	3.00	W	06:20pm - 09:20p	MERVS B-75	Michael Donohoe
BMIS	2588	23910	Data Base Management	3.00	W	06:20pm - 09:20p	MERVS 209	Richard Franklin
BMIS	2678	14571	Electronic Commerce{LAPTOP REQUIRED FOR THIS COURSE}	3.00	Н	06:20pm - 09:20p	MERVS 209	Richard Franklin

#### Fall 1 - Fall 2: ALL Lab

Subject	Cat Nun	1 CI Num	Course Title	Credits	Days	Time	Bldg / Room	Instructor
BMIS	2999	14567	Ms-Mis Practicum Lab {This lab is for 1st year MBA/MS-MIS Sudents ONLY - register for this lab with BMIS 2056)}	0.00	М	06:20pm - 09:20p	LAWRN 203	Narayan Ramasubbu

#### Fall 2: ALL Required

Subject	Cat Num	CI Num	Course Title	Credits	Days	Time	Bldg / Room	Instructor
BMIS	2409	23914	Information Systems{LAPTOP REQUIRED FOR THIS COURSE}	1.50	Т	06:20pm - 09:20p	MERVS 115	William Hefley
BMIS	2409	23913	Information Systems{LAPTOP REQUIRED FOR THIS COURSE}	1.50	Н	06:20pm - 09:20p	MERVS 104	William Hefley

#### Academic Year 2013-2014

#### Fall 2: ALL Elective

Subject	Cat Num	CI Num	Course Title	Credits	Days	Time	Bldg / Room	Instructor
BMIS	2074	21125	Stratgc It In GlbI Suply Chain	1.50	Т	06:20pm - 09:20p	MERVS 104	James Kimpel
BMIS	2687	28632	Current Topics in MIS: Managing Big Data	1.50	М	06:20pm - 09:20p	ALUMN 528	Brian Dunn

#### Course Offering Schedule 2144 - SPRING TERM IS COURSES

#### Academic Year 2013-2014

#### Spring 1 - Spring 2: ALL Elective

Subject	Cat Num	CI Num	Course Title	Credits	Days	Time	Bldg / Room	Instructor
BMIS	2053	T1387	HUMAN AND COMPUTER INTERACTION	3.00	Н	06:20pm - 09:20p	MERVS 00102	Dennis Galletta
BMIS	2537	T1388	BUSINESS SYSTEMS PLATFORMS	3.00	W	06:20pm - 09:20p	MERVS 00280	Richard Franklin
BMIS	2551	T1246	PROJ MGMNT CONCPTS & PROCESSES	3.00	Н	06:20pm - 09:20p	ALUMN 00528	William Hefley
BMIS	2551	T1188	PROJ MGMNT CONCPTS & PROCESSES	3.00	TH	12:30pm - 01:50p	MERVS 00114	William Hefley
BMIS	2679	T1196	TEC INNOV, ADOPT, & DIFFUSION {Per CK, please assign a tiered classroom in Mervis.}	3.00	ΤН	12:30pm - 01:50p	MERVS 00117	Chris Kemerer
BMIS	2689	T1191	TECHNLGY-ENABLED BUS TRANSFRM	3.00	М	06:20pm - 09:20p	ALUMN 00528	Richard Franklin

#### Spring 2: ALL Required

Subject	Cat Num	CI Num	Course Title	Credits	Days	Time	Bldg / Room	Instructor
BMIS	2409	T1184	INFORMATION SYSTEMS{LAPTOP REQUIRED FOR THI COURSE}	S 1.50	Т	06:20pm - 09:20p	ALUMN 00531	William Hefley
BMIS	2409	T1384	INFORMATION SYSTEMS	1.50	MW	02:30pm - 03:50p	MERVS 00104	Narayan Ramasubbu
BMIS	2409	T1206	INFORMATION SYSTEMS	1.50	MW	12:30pm - 01:50p	MERVS 00104	Narayan Ramasubbu