MIS Advisory Board Meeting – Spring 2022

March 18, 2022

Dean Ayers providing
a TCB update

Corporate Board Members

Black Level

- Ad Victoriam Solutions
- BlackRock
- Cloudera
- Caterpillar Financial
- Deloitte Consulting
- EY
- KPMG
- NCR
- NTT DATA Services
- Protiviti
- PwC
- State Farm

Red Level

- Aflac
- BDO
- Cerulium
- CGI
- Cox Communications
- Datum Software
- Gartner
- General Electric
- Jackrabbit Technologies
- Johnson Lambert
- Moore Carlson
- Riskonnect

Terry College of Business
UNIVERSITY OF GEORGIA

Agenda

Opening

Hugh Watson

Terry College of Business Update

Dean Ben Ayers

MIS Departmental Update

Maric Boudreau

MBT Program Update

Craig Piercy

MIS Student Organizations

Rachel Gaston

Awarding of the MIS Distinguished Service and MIS Alumni of the Year Awards

Hugh Watson

Break

Agenda

Breakout Group: Product Management: What it is and what understandings and skills do students need?

Bob Trotter and Andi Brock

Breakout Group: Analytics: What is the scope of job opportunities and what skills and technologies do students need?

Carolina Salge and Daniel Saul

Breakout Group: Metaverse: What are the business opportunities and what should be included in MIS education?

Rick Watson and Joseph Perticone

Breakout Group: Cloud computing: What skills and technologies do students need?

Craig Piercy and Sophie Tucker

Breakout Group: Information security management: Educating students for where the hack will be.

Mark Huber and Rohan Patel

Review and discuss the recommendations of the breakout groups

Andi Brock, Daniel Saul, Joseph Perticone, Sophie Tucker, and Rohan Patel

Awarding of scholarships

Terry College of Business
UNIVERSITY OF GEORGIA

Scholarship Donors

Corporations, Organizations, and Endowments

- Ad Victoriam Solutions (2)
- Big City Technology Services
- Cerulium
- Deloitte
- EY (2)
- Friends of Paul Hays (6)
- ISACA (2)
- Johnson Lambert
- KPMG (3)
- NCR (5)
- NTT DATA Services (2)
- Protiviti (2)
- PwC
- Verizon
- Hugh Watson Endowment (8)

Individuals

- Terry Chase
- Chris Draper (2)
- Craig Fleisher (2)
- Karl Goodhew
- Mark Mahoney (10)
- Bill Rajczak (3)
- Hugh Watson

Terry College of Business
UNIVERSITY OF GEORGIA

FY 2022 To Date

FY 2022 To Date

- **New Rankings**

RANKINGS

The Terry College boasts 13 academic programs ranked among the best public programs in the country, including seven in the top 10.

#13 TERRY COLLEGE OF BUSINESS — U.S. News & World Report, Undergraduate Program Ranking

#1 RISK MANAGEMENT AND INSURANCE — U.S. News & World Report, Undergraduate Program Ranking

#2 MASTER OF BUSINESS AND TECHNOLOGY — U.S. News & World Report

#3 EXECUTIVE MBA — Financial Times

#5 REAL ESTATE — U.S. News & World Report, Undergraduate Program Ranking

#9 FULL-TIME MBA — The Economist

#9 J.M. TULL SCHOOL OF ACCOUNTING — U.S. News & World Report, Undergraduate Program Ranking

#9 MANAGEMENT INFORMATION SYSTEMS — U.S. News & World Report, Undergraduate Program Ranking

#13 DEPARTMENT OF FINANCE — U.S. News & World Report, Undergraduate Program Ranking

#15 MASTER OF SCIENCE IN BUSINESS ANALYTICS — U.S. News & World Report

#16 DEPARTMENT OF MARKETING — U.S. News & World Report, Undergraduate Program Ranking

#18 DEPARTMENT OF MANAGEMENT — U.S. News & World Report, Undergraduate Program Ranking

#29 PROFESSIONAL MBA — U.S. News & World Report

Note: U.S. News & World Report does not rank departments of economics.

FY 2022 To Date

- **Operations Update**

  - Covid Health Status

  - Instruction

  - Travel

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FY 2022 To Date

In line with our FY21-25 strategic plan, the Terry College of Business has centered efforts on the following new strategic priorities:

- **Analytics**

- **Innovation**

- **Leadership**

- **Sustainability**

- **International Business**

- **Diversity and Inclusion**

Student Board Members

Rachel Gaston

Dahlonega, GA

Management Information Systems and International Business Co-Major, Data Analytics Area of Emphasis, Spanish Minor

Presidential Award of Excellence 2022, Excellence in MIS Award 2021, Four-time Presidential Scholar, Student Coordinator for the MIS Advisory Board, Member of the UGA Honors Program

Summer 2019 Internship: Tumlin Law Group
Summer 2021 Internship: Protiviti M&A
Current Internship: Jackson EMC SP&A

Post-Graduation Plans: Business Performance Improvement Consulting at Protiviti

Graduation: May 2022

Terry College of Business
UNIVERSITY OF GEORGIA

Skylar Aledia

Suwanee, GA

BBA Management Information Systems
Sport Management Minor
Certificate in Personal and Organizational Leadership

MIS Advisory Board Student Representative, Leonard Leadership Scholar, UGA Club Softball Executive Board, Computer Programming (MIST 4600) Teaching Assistant

Summer 2021 Internship: Risk Advisory Intern for KPMG

Incoming Advisory Associate in the Risk Assurance ACE Program at KPMG

Graduation: Spring 2022

Spencer Borrego

Dallas, TX

University of Georgia Honors Program
B.B.A., Management Information Systems
B.B.A., Finance

Excellence in MIS Award 2022
Terry Student Consulting - Senior Consultant
MIS Advisory Board - Student Representative

Incoming Technology Consulting Intern at EY - Summer 2022

Graduation: Spring 2023

Terry College of Business
UNIVERSITY OF GEORGIA

Andi Brock

Toccoa, GA

B.B.A. Management Information Systems
Area of Emphasis in Data Analytics
MS in Business Analytics 2023

Excellence in MIS Award 2022, MIS Advisory Board Student
Representative, Presidential Scholar, Member of Society for
Management Information Systems and Women in Technology

Incoming Technology Consulting Intern with PwC - Summer
2022

Graduation: Spring 2022

Terry College of Business
UNIVERSITY OF GEORGIA

Taylor Gray

Augusta, GA

B.B.A. Management Information Systems

Excellence in MIS Award 2022
MIS Advisory Board Student Representative
Terry Ambassador
2022 Sea Island Scholar
UGA Black Student Convocation Co-Chair/Coordinator
2022 BBSA Wealth & Development Program Associate

Terry Business and Culture in Tanzania Maymester
Summer Internship with Johnson & Johnson

Spring 2023

Terry College of Business
UNIVERSITY OF GEORGIA

Simon Haq

Dunwoody, GA

B.B.A. Management Information Systems
Intended B.B.A. Risk Management and Insurance

Student Representative: MIS Advisory Board
Director of Athletics: Alpha Kappa Psi
Member of SBI and SMIS

UGA Cortona Terry Business and Culture Maymester

Expected Graduation: Spring 2024

Terry College of Business
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Peter Hess

Johns Creek, GA

MS in Business Analytics
BBA in Management Information Systems

My strengths are leadership, analytical thinking and building strong teams. I am passionate about the possibilities that exist when leveraging data to gain insights and advantages in business.

Supreme Court Justice for Student Government Association, Student Alumni Council: Traditions Education Chair, MIS Advisory Board Student Representative

Areas of Interest: Data Analytics & Consulting

Incoming Consulting Analyst for Accenture after my graduation

Graduation: Spring 2022

Terry College of Business
UNIVERSITY OF GEORGIA

Walker Hils

Alpharetta, GA

B.B.A. Management Information Systems
Area of Emphases in Data Analytics and Information Security
Certificate in Legal Studies

MIS Advisory Board Student Representative, MIS Teaching Assistant, Member of Society for Cyber Security and Society for Management Information Systems

Incoming KPMG Cyber Security Intern in Chicago

Graduating Spring 2023

Terry College of Business
UNIVERSITY OF GEORGIA

Krista McNamara

Dunwoody, GA

UGA Honors Program
B.B.A Management Information Systems
Fintech Certificate

MIS Advisory Board - Student Representative
Alpha Kappa Psi Business Fraternity
Women in Technology

Previous Internship: Digital Transformation
Technology Business Analyst at Chick-fil-A

Post-Grad Plans (Spring 2022): Technology & Cloud
Consultant at PwC

Laura Neely

Savannah, HA

B.B.A. Management Information Systems
UGA Honors Program

Excellence in MIS Award 2022, MIS Advisory Board Representative, Presidential Scholar, Member of Society for Management Information Systems and Women in Technology

Incoming intern at Seacrest Partners - Summer 2022

Graduation: Spring 2024

Terry College of Business
UNIVERSITY OF GEORGIA

Rohan Patel

Suwanee, GA

B.B.A. Management Information Systems
Area of Emphasis in Information Security
Minor in Computer Science

MIS Advisory Board Student Representative, Member of the
Atlas Business Society, and the Society for Management
Information Systems

Incoming Cyber, Risk, and Forensics Technology Consulting
Intern at PwC

Graduation: Spring 2023

Terry College of Business
UNIVERSITY OF GEORGIA

Joseph Perticone

Atlanta, GA

B.B.A. Management Information Systems
Area of Emphasis in Information Security
Certificate in Entrepreneurship

HelixCases Chief People Officer, Terry Ambassador, MIS Advisory Board Student Representative, Terry Student Consulting Associate, Apollo Society Energy Analyst

Incoming PwC Technology Consultant Intern in NYC

Graduation: Spring 2023

Vivek Rama

Johns Creek, GA

MIS Advisory Board Student Representative,
Delta Sigma Pi Professional Fraternity

Past Internships: Retail Technology Solutions Intern at
Scientific Games Corporation 2019, Enterprise
Program Management Office Intern at UPS 2020,
Digital Marketing Intern at L'Oreal Summer 2021

Post Graduation Plans: Marketing Management
Trainee at L'Oreal Group

Interests: E-Commerce, Technology Solutions, Project
Management, Fashion Merchandising

Graduation: Spring 2022

Daniel Saul

Franklin, Tennessee

B.B.A. Management Information Systems
Area of Emphasis in Data Analytics
M.S. Business Analytics

Excellence in MIS 2022
Presidential Scholar
MIS Advisory Board Student Representative
Member of SMIS, SBI, and Data for Good

Previous Internship: Corporate Development at Make-A-Wish Georgia
Current Internship: Business Operations at intelliflo

Post-Graduation: Complete M.S. in Business Analytics

Graduation: Spring 2022

Terry College of Business
UNIVERSITY OF GEORGIA

Ava Siegel

Upton, MA

B.B.A. Management Information Systems
Area of emphasis in Information Security
Minor in Computer Science

MIS Advisory Board Student Representative, Society for Cyber Security, Society for Management Information Systems, Women in Technology

Graduation: Spring 2024

Sophie Tucker

Cumming, GA

B.B.A. Management Information Systems

MIS Advisory Board Student Representative
Women in Technology

Incoming Information Services Intern with
Caterpillar Financial - Summer 2022

Graduation: Spring 2023

Terry College of Business
UNIVERSITY OF GEORGIA

MIS Departmental Update

Friday March 18, 2022

Terry College of Business
UNIVERSITY OF GEORGIA

Hiring update

For August 2022:

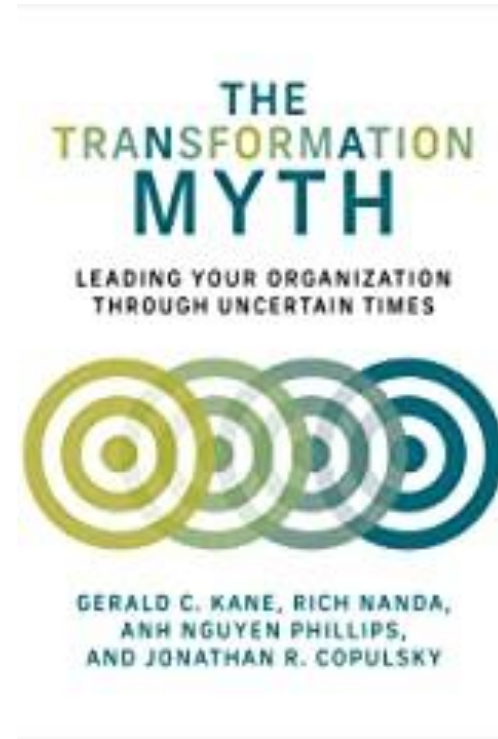- New Full Professor: Dr. Jerry Kane *
- New Lecturer: Dr. Michele Minetola

For August 2023:

- New Assistant Professor *

*Part of a **Presidential Interdisciplinary Hiring Initiative**, which aims to build research capacity and teaching by hiring an interdisciplinary cluster of faculty focusing on ethics in data science and AI.*

Dr. Gerald (Jerry) Kane
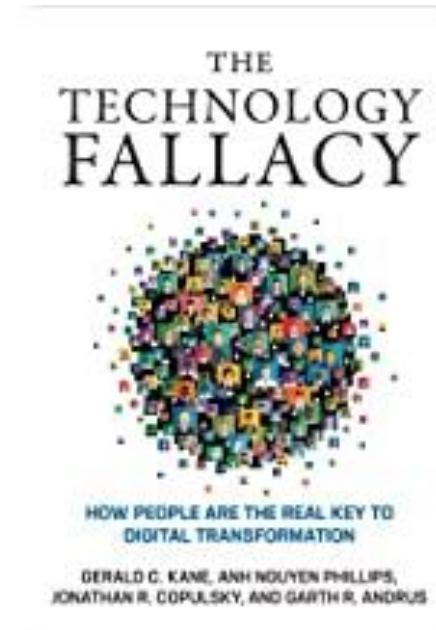
Ranking

MIS undergraduate program ranked **#9** Best MIS Program among public universities, according to *US News and World Report*

MBT ranked **#3** among Online Business Programs (excluding MBA), according to *US News and World Report*

Faculty Awards

Dr. Elena Karahanna

- Terry College of Business Distinguished Research Award

Dr. Mark Huber

- UGA' Lee Anne Seawell Faculty Recognition Award!
- UGA Award for Excellence in Teaching
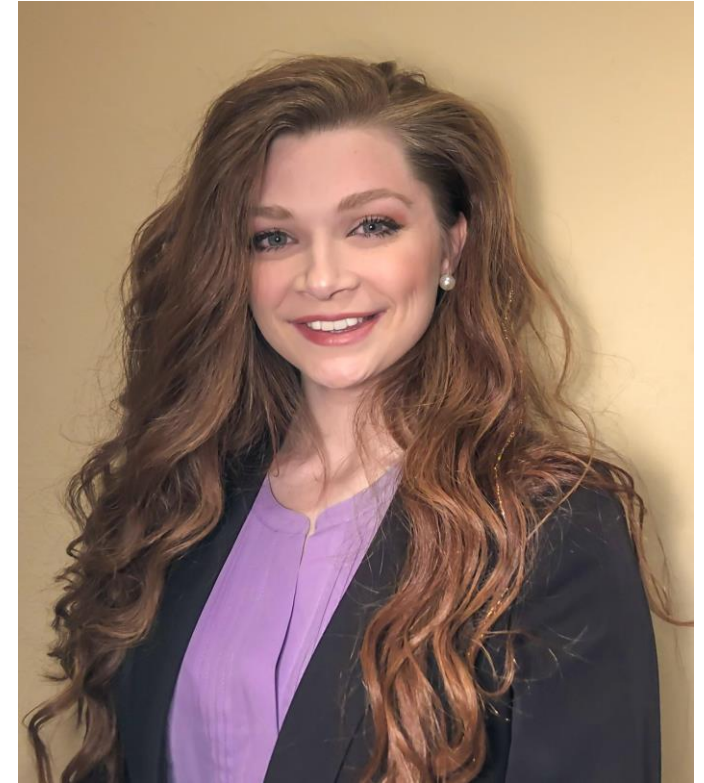
Dr. Karen Aguar

- Outstanding Teaching Faculty award

Student Awards

Rachel Gaston

Recipient of the Presidential Award of Excellence

Student Awards

Laura Neely
Andi Brock
Spencer Borrego
Taylor Gray
Daniel Saul

Recipients of an Excellence in MIS award for their high academic achievement and extracurricular involvement and leadership

New or Enhanced Initiatives

Enhanced alumni communications

Departmental merchandise

Meet the Companies

Terry College of Business
UNIVERSITY OF GEORGIA

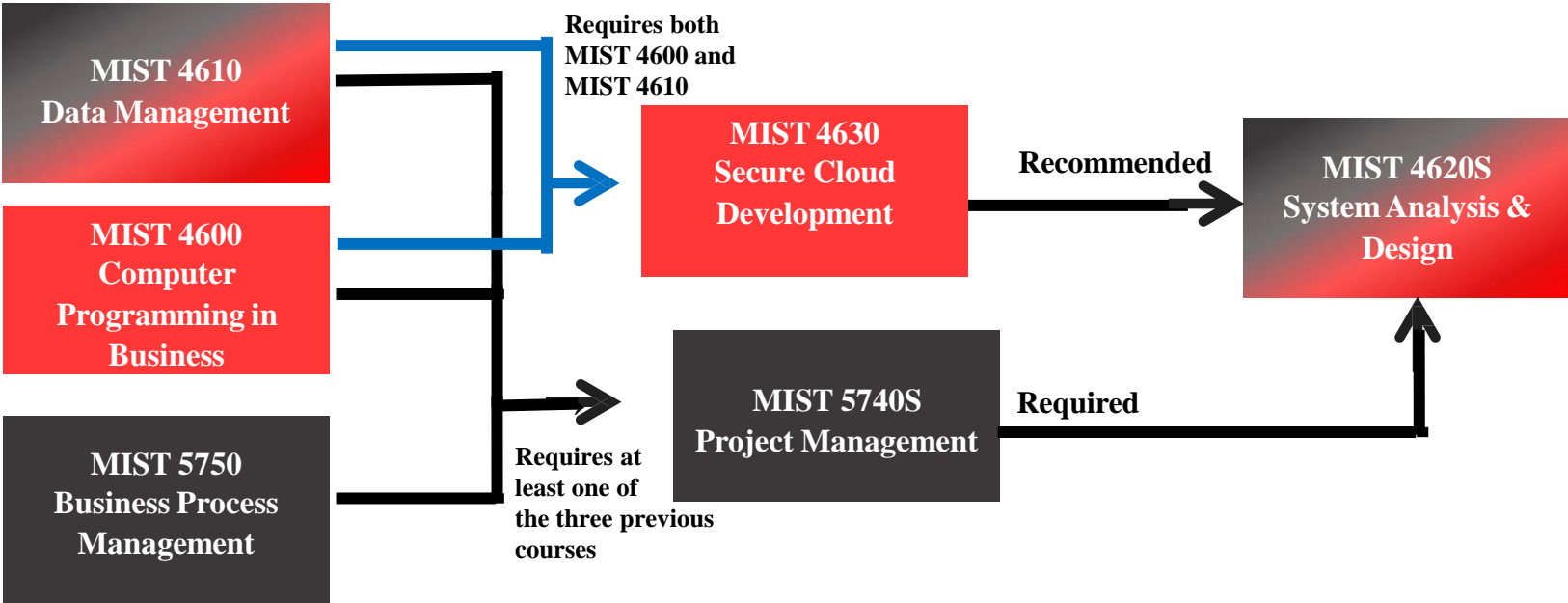**Meet the Companies**

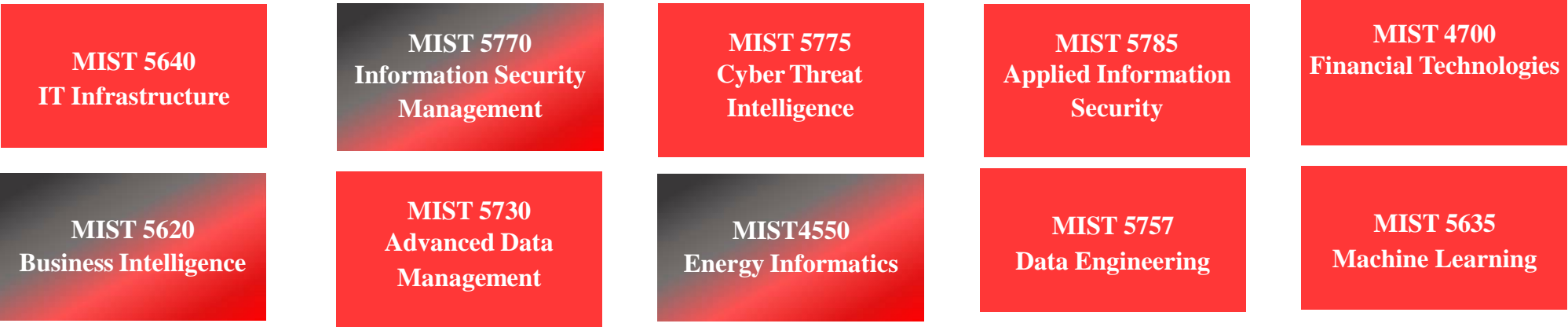Terry College of Business
UNIVERSITY OF GEORGIA

Undergraduate Program

Terry College of Business
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MIS Majors Core

- A grade of **C or better** is required for all MIS courses numbered 4000 or higher (to graduate with the MIS Major)
- A grade of **C or better** is required in all pre-requisite courses before registering to the next

Business Skills Courses

Technical Courses

MIST 4610 Data Management

MIST 4600 Computer Programming in Business

MIST 5750 Business Process Management

Requires both MIST 4600 and MIST 4610

MIST 4630 Secure Cloud Development

Recommended

MIST 4620S System Analysis & Design

Requires at least one of the three previous courses

MIST 5740S Project Management

Required

MIS Major Electives (only one is needed)

MIST 5640 IT Infrastructure

MIST 5770 Information Security Management

MIST 5775 Cyber Threat Intelligence

MIST 5785 Applied Information Security

MIST 4700 Financial Technologies

MIST 5620 Business Intelligence

MIST 5730 Advanced Data Management

MIST4550 Energy Informatics

MIST 5757 Data Engineering

MIST 5635 Machine Learning

NEW MIST COURSES

- **MIST 5757/7757 Data Engineering** (Spring 2022) – Course explores concepts and techniques of architecting data to support data-intensive applications and large-scale data analysis workflows.

- **MIST 5635/7635 Machine Learning and Business Analytics** (Spring 2022) – Course covers topics in supervised learning, unsupervised learning, dimension reduction, and feature selection.

- **MIST 5440/7440 AI in Business and Society** (Fall 2022) – Course explores AI business applications and impacts, AI biases, AI governance.

NEW BUSN COURSES

- **BUSN 3020E SQL Skills for Business Analytics** (2022)
- **BUSN 3030E Python Programming Skills for Business Analytics I** (2022)
- **BUSN 4030E Python Programming Skills for Business Analytics II** (2022)
- **BUSN 3040E R Programming Skills for Business Analytics I** (2022)
- **BUSN 4040E R Programming Skills for Business Analytics II** (2022)

- **BUSN 6700 Strategic Principles in FinTech** (2022)

MIS UNDERGRADUATE ADMISSION OVER TIME

	Fall 2010		Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Spring 2022
Honor Students			-	-	-	-	22	9	24	11	22	9	27	10
First Time Applicants	72		158	125	220	167	224	145	179	156	226	176	199	156
Change of major / Second major	5		41	57	48	62	44	47	42	69	56	74	55	70
Total	77		199	182	268	229	290	201	245	236	304	259	281	236
Total Accepted	77		**137**	**134**	**154**	**174**	**180**	**176**	**177**	**181**	**184**	**207**	**200**	**205**
% Accepted	**100%**		**69%**	**74%**	**57%**	**76%**	**62%**	**88%**	**72%**	**77%**	**61%**	**80%**	**71%**	**87%**

MIS UNDERGRADUATE STUDENTS OVER TIME

Number of MIS undergraduate students enrolled
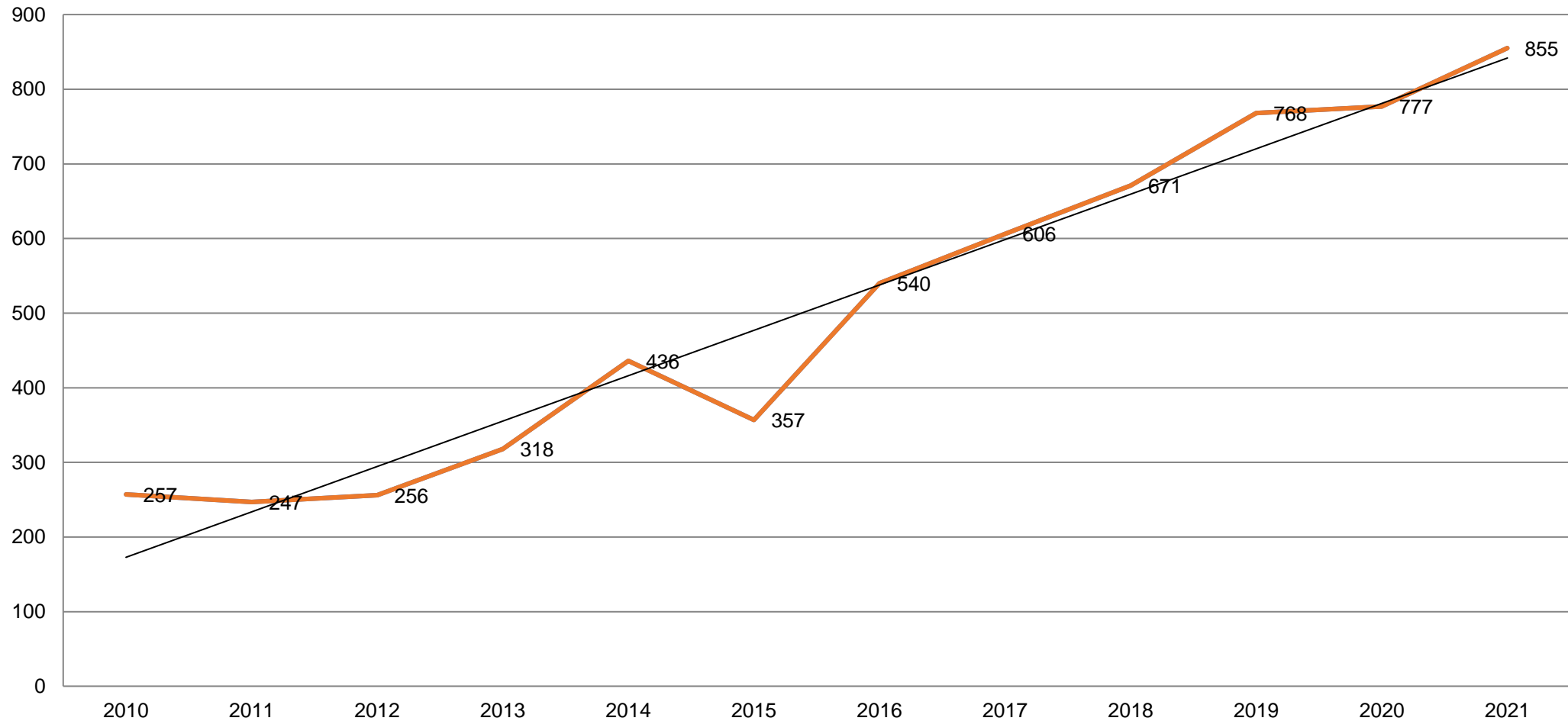
* As of fall 2021: 32% Female

UGA Popular Majors (Fall 2021)
(at the undergraduate level, removing "undecided" and "intended")
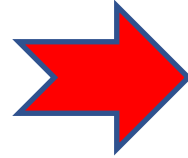
Major	Headcount
Biology	2623
Psychology	2154
Finance	1320
Political Science	945
Marketing	934
Management Information Systems	855
Computer Science	827
Economics	726
International Affairs	718
Risk Management and Insurance	548
Management	536
Mechanical Engineering	494

Challenges

- Manage growth
- Staff some classes
- Remain cutting edge

MIS@Terry

cpiercy@uga.edu

Terry College of Business
Master of Business and Technology
UNIVERSITY OF GEORGIA

1785

MIS Advisory Board - Spring 2022

https://online.uga.edu/degrees-certificates/master-business-technology

Delivering Quality Online Masters Level Instruction since 2016!

Now ranked #3 (after two years at #4)

University of Georgia (Terry)

Athens, GA

📒 #3 in **Business Programs** (tie)

The application deadline for the online graduate business programs at University of Georgia (Terry), a public school, is rolling. Seventy-four percent of students are already employed when they first enroll.... **READ MORE »**

PER CREDIT (OUT-OF-STATE)
$825

ENROLLMENT
73

SCHOOL TYPE
Public

BEST
ONLINE PROGRAMS
U.S.News & WORLD REPORT
RANKINGS

The University of Georgia
TERRY COLLEGE OF BUSINESS
Master of Internet Technology

Students:

- 34 to graduate in Spring 2022

    - Currently completing last two courses: Digital Business Strategy and Advanced Topics (FinTech, Blockchain, ML).

    - Graduation ceremonies are back to in-person (planned)

    - Some are looking for new positions - please let us know of opportunities

- Actively recruiting for Fall 2022 cohort

    - Currently: 20 applicants; 10 accepts; April and May are big months for recruiting

- Honors Day: KoRhonda Randolph - Recipient of the Excellence at the Intersection of Business and Technology award.

The University of Georgia
TERRY COLLEGE OF BUSINESS
Master of Internet Technology

Skills for the "sweet spot" between the C-suite and the technology teams.

MIST 7500E Digital Business Technology	MIST 7510E Database Management	MIST 7570E Internet Programming I	MIST 7530E Object Oriented Systems Analysis	MIST 7520E Project Management
• **Business modeling and Strategy** • Digital Technology Requirements • Business System Architectures • Digital Business Infrastructure • Review of HTML/CSS/Java • **Cloud Computing**	• **Data modeling,** • Relational databases and SQL • Database structure, storage,,and integrity. • **Big Data** • **Data Analytics**	• **Cloud-based application development** • **AWS Cloud** • Design Patterns • **Secure Software Development** • Design, Implementation and Testing • Deployment to Cloud • Version control	• Business Technology Strategy • UML/**BPMN** • Systems Development Life Cycle • **Agile Development** • **Devops** Concepts • Start of Capstone projects	• **PMBOK Project Life Cycle** • **Agile PM** • Project Planning • Scheduling • Project Budgeting • Feasibility • **Risk Mitigation** • Continuation of Capstone projects

MIST 7571E Internet Programming II	MIST 7540E User Experience Strategy	MIST 7590E Master of Business and Technology Project	MIST 7550E Digital Transformation Strategy	MIST 7515E Advanced Topics of B & T
• Mobile first Development • Web Standards • React framework • **Mobile Development**	• **User experience (UX) design** • User research • Information architecture • Content strategy • **Visual design** • Manage UX design projects	**Capstone Project:** 9 month experiential learning project where students work collaboratively in teams to develop a digital business solution for an external sponsor. Inception through implementation	• **Digital Business Models** • Building Presence • Security and Payment Systems • Marketing and Advertising Concepts • Ethical, Social, and Political Issues • **Trends in Digital Commerce**	Hot topics: may change each year. First iteration possibilities: • **Fintech** • **Blockchain** • **Machine Learning/AI** **Future options** • **Data Analytics** • **CyberSecurity** • **Others**

MBT Projects

Title: Virtual Internship Opportunity: IOS Application Riipen Page: https://app.riipen.com/projects/pORG4kzq/details Location: The Fournier Auto Group Ltd - Vancouver, British Columbia, Canada Contact: Robert Fournier Contact Info: 778-908-2804	Title: Web Development - Black Pages Monitor Riipen Page: https://app.riipen.com/projects/vLQKkBOP/details Location: Targeted Media Communications - Phoenix, Arizona, United States Contact: Desmond Peartree Contact Info: 469-418-0910
Title: Incrementum - new website with integrated individual user dashboard tools Riipen Page: https://app.riipen.com/projects/ZOgwY7O6/details Location: Incrementum - Houston, Texas, United States Contact: Jonas Van Looveren - Founder/Owner Contact Info: 713-689-9955	Title: Website Development - ZeroPads Development Group Riipen Page: https://app.riipen.com/projects/vO1Q6bOE/details Location: Atlanta, Georgia Contact: Kimberly Dexter Contact Info: 912-722-7207
Title: Blue Sky Residential and Commercial Cleaning of Florida Inc Riipen Page: https://app.riipen.com/projects/rL7k5YLK/details Location: NY and Fla. Contact: Seth Goldberg Contact Info: 516-909-9000	Title: UX/UI Design for FANFINDR, a Sports Bar/Teams locator app-Web and Mobile Riipen Page: https://app.riipen.com/projects/KVGowaVM/details Location: Atlanta, GA Contact: Juliet Sonnenberg Contact Info:

New projects are started each January. Let us know by November if you have a project need.

CTA!

- What updates do you recommend for the MBT Curriculum?
- Word of mouth - please spread the word to potential students - perhaps from your organizations :-)
- Potential projects - let me know if you have potential projects that could use an MBT team.

Dr. Craig Piercy - cpiercy@uga.edu

MIS Student Organizations

Rachel Gaston

Terry College of Business
UNIVERSITY OF GEORGIA

MIS Student Organizations

- Society for Management Information Systems
- Women in Technology
- Society for Cyber Security
- Society of Business Intelligence
- Terry Student Consulting
- Terry FinTech Society
- MIS Student Advisory Board

Terry College of Business
UNIVERSITY OF GEORGIA

Contact Information

- SMIS: https://www.ugasmis.com/
- WIT: https://womenintechuga.wixsite.com/womenintechuga
- SCS: https://ugascs.com/
- SBI: https://ugasbi.weebly.com/
- Terry Student Consulting:
  https://www.terrystudentconsulting.com/
- Terry FinTech Society: https://www.terryfintech.org/
- MIS Student Advisory Board:
  https://www.terry.uga.edu/alumni/mis-advisory-board.php

Terry College of Business
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Contact Information

- SMIS: info@ugasmis.com
- WIT: WomenInTechUGA@gmail.com
- SCS: ugascs@gmail.com
- Terry Student Consulting: tsc.interviews@gmail.com
- Terry FinTech Society: terryfintechsociety@gmail.com
- MIS Student Advisory Board:
  - Rachel Gaston: rcg68611@uga.edu
  - Hugh Watson: hwatson@uga.edu

Terry College of Business
UNIVERSITY OF GEORGIA

Connect with us!

LinkedIn: UGA MIS

Instagram: @misatterry

Facebook: @misatterry

Twitter: @misatuga

Terry College of Business
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MIS Awards

Terry College of Business
UNIVERSITY OF GEORGIA

MIS Distinguished Service Award

MIS
Distinguished
Alumni Award

Breakout Group: Product Management: What it is and what understandings and skills do students need?

Bob Trotter and Andi Brock

Breakout Group: Analytics: What is the scope of job opportunities and what skills and technologies do students need?

Carolina Salge and Daniel Saul

Breakout Group: Metaverse: What are the business opportunities and what should be included in MIS education?

Rick Watson and Joseph Perticone

Breakout Group: Cloud computing: What skills and technologies do students need?

Craig Piercy and Sophie Tucker

Breakout Group: Information security management: Educating students for where the hack will be.

Mark Huber and Rohan Patel

- Product Management vs. Project Management
  - Product management is proactive and has a continuous life cycle. It involves market research and implementing new ideas.
  - Project management is a reactive process based on wants. It has a set time frame that the project must be accomplished by.
- Underpenetrated area of study
  - Currently, there are not any majors or areas of study in product management, but businesses are looking for students that have the knowledge and skill that a product manager needs.
  - UVA and Carnegie Mellon both have started to break into this field.
- How should we integrate product management into the MIS curriculum?
  - We should include a brief lecture introducing the topic in MIST 2090 (pre-requirement for all Terry students) to ensure that the students understand the conceptual difference between product management and project management.
  - We should base the capstone class (MIST 4620) around the ideas of product management so students can learn and implement the practice in their capstone project. This would allow the students to learn the vision and strategy that it takes to be a product manager.
  - We also talked about including an elective that MIS students could take to dive further into the topic. The class would also provide a certification in product management (CSPO - Certified Scrum Product Owner was brought up as a possible certification program that the students could take).
  - Another idea is to push this idea into Terry College's initiative on innovation.
- Why should product management belong in MIS?
  - Product management is the intersection of technology and business.
  - The product management team focuses on what we are going to produce, and the engineering team focuses on how we are going to build it.

Analytics

Summary
- Distinguishing the topics and curriculum of Business Intelligence, Data Engineering, and Data Management/Analytics
  - BI is more of the descriptive aspects, focusing more on the basics such as statistics and visualizations with storytelling as the more conceptual factor
  - Data analytics and management is the functions, vectors, loops, web scraping, data visualization, big data, machine learning, web applications such as Shiny, AI, normalization, data wrangling, and more concepts
  - Data engineering is more advanced and technical where students need to be good with subqueries, aggregate functions, and analytic windowing functions
- The definition of data science depends on who you are asking and in what context
  - Consists of computer science, statistics, and business acumen
- BI is understanding the data the business itself generates; now with analytics, it is data from customers from other sources
- Not every company is in the same stage of business analytics, especially different divisions within
- What is the market asking for from students?
  - Storytelling skills and understanding how <u>communicating</u> the data is important to convey messages after creating visuals
  - Mindsets, skill sets, tool sets, data sets used to understand where to implement Business Intelligence and drive conceptualization
    - $C = V * A$
    - To answer the conceptual so what, why now, what then, then what questions
    - Students need to be able to do this stuff in real time, using open-source data sets in multiple languages and formats
    - Reduce data waste and answer questions such as how the data can be used
  - Skill requirements
    - true/pure/raw SQL
    - Visualize with Tableau
    - Use Python for scripting needs (not expected as a base skill)
    - One employer used Alteryx (visuals), Jupyter Notebooks (data engineering)
- Recommendations
  - Move towards PowerBI which is cheaper and integrated with the Microsoft Office
  - Teach students to be vendor and tool agnostic, with an idea of what's going on in the backend
  - Make students be able to take the next steps in their own learning, furthering their education based on what tools they have previously used
  - Try to have students understand the analytics side of the Metaverse.
- Dashboards

- ○ Employers work with dashboards every day
- ○ Skills are competencies, what will show up in the job description
  - ■ Higher level
- ○ Tool sets are manifested into something actionable
- ○ Courses with topic overlap should be unique
- ● Class Projects
  - ○ Companies would be interested in providing unique data and projects for courses
- ● Hiring
  - ○ Employers looking for:
    - ■ Data engineers, data scientists → MIS, MBA, undergraduate, graduate students
    - ■ Does not matter what education level the student has; depends on what skills the student holds

What in the world is the Metaverse?
- Virtual Reality is already here and being used in many aspects
- Phase 1 - will be a physical representation for convenience, by helping interactions feel realistic for a better experience
- Phase 2 - play a round of golf with your favorite celebrity, which is a next level experience
- You will be able to end up doing whatever you want, but at what cost?
- Pool applications separately - serve different purposes and different risks
  - Business
  - Life
  - Fun
- It feels like we are experimenting at the moment
  - Nobody is certain that Zuckerberg is going to be successful
  - Who is next? Apple? Microsoft? Independent organization?
- Taxonomy - will it be universal to cross streams?
- How can you cross between the metaverse and the physical reality?
  - When I think of a travel experience, I enjoy the food - How do I enjoy the food in the Metaverse?
    - Right now - vision and hearing
    - In the future - wants to engage all senses
- The opportunity of getting to know what people like
  - More personalized
  - Being guided while shopping
- What's the living lab aspect
- What's the point - why not just go to the football game?
  - Some people like the experience, but some people just like to watch the game. There's no limit to additional sales in Metaverse
- Does it improve communication?
  - Instead of texting or snapchatting, you have an actual rendering of that person?
  - Does it degrade it because you have no more interaction?
- Exponentiated version of social media
- Zoom - office hours far better, the Metaverse will just build on that as an OPTION

What should we be teaching?
- Is a course on building the metaverse too much or too little?
- The new AI elective is good start to explore biases and risks
- As for core curriculum, how can we apply it in simple instances
- There is risk of having poor social interactions, but imagine the complete lack of inhibition. We should let students experience this trouble in the classroom
- Similar to the class called The Internet - it was a good start at the time
- What's the goal?
  - It will be greatly beneficial to keep students up to date on up and coming transformative technologies like this one. We want to keep our students informed and offer opportunities up to their level of interest.
  - Interview, go into the field, get involved, or learn to understand the risks
- Is there anything close to this that is accessible already?

- ○ Difficult for students to build this directly, senior level Master's students could potentially
- The University can sponsor this sort of project
  - ○ Could be a persistent project developed year over year
  - ○ Could be bought to start, then developed by the students
- One of the wasted resources are some student projects that are thrown away, this would be continued to be built upon year over year

How to treat it from a MIS perspective?
- It's going to be monetized
  - ○ The straight line monetization is understanding consumer desires
  - ○ Monetized by selling data like Facebook
- What industries will this help or hurt?
  - ○ Airlines, concert, artists
  - ○ If a musician performs in the metaverse, are you paying with metaverse money or real money?
- Have students envision what a business model would look like in a Metaverse world
- Metaverse can be homed in MIS, we are the innovators, but we will help everyone else get involved
- The potential first move is creating a living Metaverse lab housed in MIS, and then bringing on other students from the entire university with a range of majors (philosophy, computer science, biology, etc.)

Information Security Management

During the Information Security Management breakout group, we talked about what topics the university should consider adding in order to maintain pace with the evolving field. These topics include Operation and Technology, Product Security (specifically physical products like wearable tech), Web3, IGA, Cloud Migration, and Audits. It was also noted there needs to be a greater emphasis on scripting and coding. From there, the conversation turned to how the university should update the terminology they use in the information security emphasis to maintain pace with the terminology being currently used in the industry. Some examples given included Business and Cyber Resilience, Business Protection, and Governance. At the very end of the meeting, it was said that there is a great demand for students in the cyber-space, but not enough students are graduating with the desire to go into the field. It was suggested there be an event where we can bring in students from across campus to learn about Cyber Security and the potential jobs within the field.

Cloud computing: What skills and technologies do students need?

1. **Efficiency: Migration and Cost Op– What should students be aware of?**

   - Cloud's scalability; managing cost and efficiency of the Cloud; being stewards of company finances
   - Cost Optimization– be aware that "lift and shift" is very expensive
   - Migrating Legacy Systems to Cloud– how security is changing from very robust on-premises models to the Cloud
   - Cloud Adoption and Migration– regulations, security, how to make transition efficiently

2. **Thorough Understanding of the Cloud– What knowledge/skills should students be equipped with?**

   - Understanding of Databases to understand advanced Data Services
   - High-level view of Cloud (how it works, benefits, etc.)
   - When working with companies who use these services, it is helpful to have learned a deeper understanding through curriculum (MIST 4630; AWS)

Using Cloud to solve real world Business Problems
   - Requires deep understanding of the Cloud
   - Functional or Development side → Be Solution Architects
   - Know the business inside and out; automating solutions to be the most effective

Understanding how Everything Comes Together
   - Build trust with customer to make best long term solution

3. **Workforce Transformation – What should students expect upon graduation?**

   - Students will be prepared with advanced skills at UGA, but they will see traditional roles in the workplace → these "traditional roles" don't work in Cloud (advanced education, then move to old-fashioned world)
   - Network, storage, compute → need for agile, smaller teams
   - Migrating from traditional to Cloud is a COMPLETE transformation (affects testing, development, and implementation models)
   - Sagemaker and AIML

4. **Security – Security skills prevalent in the workforce**

- Infrastructure → All Code (Students need to know to operate technically); scanning repositories; setting up monitoring; dynamic and static scanning
- Adapt to Security in/of the Cloud
- Everyone/every sector needs to adapt to Cloud– can't only be some adaptations
- Students should be aware of federal and state regulations and how they may impact how one can secure/store data in the Cloud (some goes into data center, some in the cloud)
- Understanding the responsibility models (What do YOU have control over, and what do YOU need to adapt?)
- Hybrid Cloud (huge potential customer base); almost everything is hybrid to some extent

5. Curriculum Recommendations

Education
- Potential Lab: Cloud native security; scanning containers for vulnerability
- Important Concept: Understanding encryption in transit/storage (when you should, difference from hashing)
- Potential Capstone Project– Migration from On-Premises to Cloud
- Seeing opportunities to use Cloud– containers; leverage scalability

Vital Direction Moving Forward
- Potential Cloud Area of Emphasis– enable students to be more knowledgeable, equipped, and competitive to be recruited for careers