Professional Master in Statistics



Presented by

John A. Dobelman Director, M.Stat Program

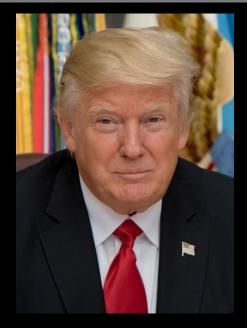
August 16, 2018

Outline

- Introductions
 - Department Chair
 - Director
 - Administrator
 - GRB EPMP Coordinator
 - M.Stat Students
- M.Stat Program Overview
- Advising
- Administrative/Responsibility
- Life
- Questions/Discussion



Administration













 Marina Vannucci, Professor and Chair of Statistics



 Theory and Methods: Bayesian Variable Selection, Wavelet Methods in Statistics Applications: Bioinformatics, Chemometrics and Engineering

Meet the Director

- J.A. Dobelman (DH 2100, 713 348 5681)
 - Professor in the Practice in Statistics, and Director of Professional Master's Program
 - dobelman@stat.rice.edu
 - http://dobelman.rice.edu/
 - Here most of the time

Teaching

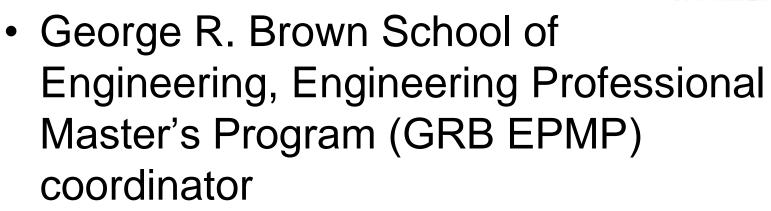
- STAT 499/699, Mathematical Sciences Computational Finance
- STAT 482/682, Quantitative Financial Analytics
- STAT 449/649, Financial Engineering
- ECON 307/STAT 310, Probability and Statistics
- ECON 504, Advanced Economic Statistics
- STAT 431, Overview of Mathematical Statistics
- STAT 385, Methods Of Data Analysis And System Optimization
- STAT 486/686, Computational Finance I: Market Models
- MGMT 927/627, Enterprise Exchange
- STAT 280, Elementary Applied Statistics
- MBA/MIB 5315, Statistical Methods for Management Decisions



- Margaret Poon, Administrative Lead
 - Verify all academic forms
 - Student timesheets
 - Part-time status
 - Student CPT/OPT
 - After coordination with OISS
 - Testamentary letters (Visa, employment)
 - Coordinates all student employment
 - Coordinates facilities & equipment issues
 - Provide hard copy of all forms and agreements to Ms. Poon, x6032, poon @rice.edu



- Agustina "Tina" Fernandez Moya
 - afernandezmoya@rice.edu
 - Extension 2852
 - Certified Public Accountant (CPA)



- School-wide events and support
- EPMP Orientation Friday, August 17 at 1500 (McMurtry Auditorium)



Meet the Students









Incoming Students

■ M.Stat Applied Statistics for Industry	■ M.Stat Statistical Computing and Data Mining
HE, XINGZI (F)	Allen-Glass, Violet (F)
■ M.Stat Bioinformatics, Statistical Genetics, & Biostats	Bi, Yifei (F)
Jiang, Ruiyan (F)	Bian, Tao (F)
Nie, Grace (F)	Canby, Marc (M)
Stefanick, Nathan (M)	CHOI, JEONG HOON (M)
Wu, Xue (F)	HE, Yuan (M)
■ M.Stat Financial Statistics and the Statistics of Risk	He, Yue (F)
Li, Keming (F)	Jiang, Yunxi (F)
Lin, Sen (M)	Kim, Adam (M)
Qian, Weicheng (M)	Konduri, Pradhith (M)
Ramesh, Sathya (M)	Long, Xiaochen (M)
Wang, Mengqing (F)	Rodgers, Michael (M)
	Yang, Peng (M)
Xiang, Hao (F)	Ye, Jinchen (M)
Xing, Dongyu (F)	Zhang, Kai (M)
Xing, Yifan (F)	Zhang, Yifan (F)
Yu, Jingfei (F)	Zhu, Ouyang (M)
■ M.Stat Preparation for Ph.D. Studies in Statistics	■ MCSE - STAT
Riggs, Kaleigh (F)	Ramirez, Isis (F)

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Anderson, Zachary (M)

Canby, Marc (M)

Chen, Yian (M)

Choi, Jeong Hoon (M-Brian)

Ding, Dong (Daisy-F)

Gao, Siyue (F)

Gao, Wei (F)

Hinchey, Nathalie (F)

Jiang, Ruiyan (F)

Jin, Ran (M)

Konduri, Pradhith (M)

Kwon, Jin-Hyuk ()

Lin, Yunyi (F)

Liu, Jinhong (F)

Liu, Tengjiao (F)

Liu, Yuyan (F)

Qin, Rui (M)

Shah, Miten (M)

Smith, Elliot (M)

Tancock, Brian (M)

Volkmar, Peter N. (M)

Wang, Xiao (F)

Webb, Daniel (M)

Wu, Ahra

Xu, Jingda (M)

Ye, Siao (M)

Yu, Shibo (F)

Zeng, Pei (M)

Zhang, Xiang (F)

- Please name the file (if you can):
 Lastname, Firstname.jpg
- Send photo to Margaret (<u>poon@rice.edu</u>)
- This is required for any signatures, etc.



Program Overview

- Non-thesis professional master's degree
- Not a MA (thesis) degree
- Coursework only
- Mathematical, theoretical and applied content
- Prepares for occupation as a professional statistician



RICE UNIVERSITY

AN AMERICAN INSTITUTION

DEDICATED TO THE ADVANCEMENT

OF LIBERAL AND TECHNICAL LEARNING

AND THE PROGRESS OF HUMANKIND

IN LETTERS SCIENCE AND ART

FOUNDED AND ENDOWED

AD MAIOREM DEI GLORIAM

BY WILLIAM MARSH RICE

IN PREEDOM FOR RESEABCH

TO SOBER FEARLESS PURSUIT

OF TRUTH BEAUTY RIGHTEOUSNESS

AND TO ALL HIGH EMPRISE CONSECRATED

WOULD HAVE ALL KNOW BY THESE PRESENTS

THAT IN THE PRESENCE OF THE TRUSTEES FACULTY

STUDENTS AND FRIENDS OF THIS UNIVERSITY

IN PUBLIC CONVOCATION ASSEMBLED

THE TRUSTEES HAVE CONFERRED UPON

A STUDENT OF THE UNIVERSITY
THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION
WITH ALL THE RIGHTS DUTIES AND PRIVILEGES
APPERTAINING TO THAT DEGREE

MODERN PEAK NAT PERSONNIA A STANKY



Program Overview

- 30 hours (10 courses) approved technical coursework, Depending on specialization
- New courses at GRB level for professional development (30+ hrs)

Course	Title	Instructor		
ENGI 505	ENGINEERING PROJ MGMT & ECON	Segner, Edmund P.		
ENGI 510	TECHNICAL AND MANAGERIAL COMM	Mardis, Jerlyn L.		
ENGI 515	LEADING TEAMS AND INNOVATION	Van Kleeck, David A.; Phalen, Thomas E.		
ENGI 528	ENGINEERING ECONOMICS	Segner, Edmund P.		
ENGI 529	ETHICS & ENGINRNG LEADERSHIP	Segner, Edmund P.		
ENGI 545	STRATEGIC THINKING	Chevallier, Arnaud M.		
ENGI 600	GRADUATE COMMUNICATIONS SEM	Hewitt, Janice L.		
ENGI 610	MGT FOR SCIENCE/ENGINEERING	Barron, Andrew R.		
ENGI 614	LEARNING HOW TO INNOVATE?	Mooiweer, Henk		
ENGI 615	LEADERSHIP COACHING FOR ENGR	Porche, Germaine		

Program Overview

- Focus on Department concentration areas
- 3-4 semester tenure. 3 semester typical
- Must satisfy University residency requirement
 - 1 semester fulltime requirement waived
- Maintenance of GPA for continuation and graduation (3.0)
- No Pass/Fail for courses used to satisfy the 30-hour program

Program Overview

- Optional attendance at Statistics colloquium (strongly recommended; may take for supplemental credit)
- Internships opportunities may develop
- Funding not provided. Opportunities do arise to assist with department courses and other needs at an hourly rate.
- Honor Code
- Welcome/Needed at all Departmental events

- AT LEAST:
 - Fall 2018
 - Spring 2019
 - Note registration deadline is in November!
 - Fall 2019
- Specialties
- Program Tailoring
- Course Selection
- Ongoing advising
- Future Activities and Employment

Specialties

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- Applied Statistics for Industry
- Financial Statistics and the Statistics of Risk
- Bioinformatics, Statistical Genetics, and Biostatistics
- Statistical Computing and Data Mining
- Environmental Statistics
- Preparation for Ph.D. Studies in Statistics, Mathematical Economics, and Finance
- 5th Year and MCSE

Specialties

- Required of all Specializations (12 hours)
- Choices (Tracks)
- Electives Recommended
- Free Electives
- Leadership, communication and management development courses

Required of all

Course	Title	Instructor	
STAT 518	PROBABILITY	Kimmel, Marek	
STAT 519	STATISTICAL INFERENCE	Scott, David W.	
STAT 605	R FOR DATA SCIENCE	Bertolusso, Roberto L.	
STAT 615	REGRESSION AND LINEAR MODELS	Merenyi, Erzsebet	
STAT 616	ADVANCED STATISTICAL METHODS	Guerra, Rudy	

Tracks & Electives

Core - Required of all Specializations (12 hours)

Choices - Tracks

Track - Financial Statistics/Risk Management (9 hours)

Track - Biostatistics/Bioinformatics/Statistical Genetics

Track - Statistical Computing and Data Mining (9 hours)

Track - Environmental Statistics Core (6 hours)

Electives

Electives - Recommended

Electives - Biostatistics Recommended (6 Hours)

Electives - Bioinformatics Recommended (6 Hours)

Free Electives

Free Electives Outside Dep't

Other Optional Courses

Potential MSCE HPC Options

Recommended Electives Not Counting to Graduation Requirements

Example Curricula

- Applied Statistics for Industry
- Financial Statistics and the Statistics of Risk
- Bioinformatics, Statistical Genetics, and Biostatistics
- Statistical Computing and Data Mining
- Environmental Statistics
- <u>Preparation for Ph.D. Studies in Statistics, Mathematical</u> Economics, and Finance

http://tinyurl.com/hl6rxdn

Credentials

- http://tinyurl.com/hl6rxdn
- The course planning page has credentials
 - UN: dobelman
 - PW: mstat2019

"New" Courses

(See course schedule)

Special Situations

- First Semester students
 - Scheduling more than 9 hours in will require Director approval
 - Cannot be paid to grade or other part-time work
- Part-Time Students
 - Group assignments
- Conditional Admissions
 - Conditions on Math-Stat prerequisites
 - Before or after matriculation
 - Conditions on Stat 518/519
 - Conditions on GPA

Requirements

- Student's responsibilities for all requirements
 - Must be involved in your process and with the other students
 - Coursework (see warnings)
 - How the program works and responsibilities
 - Schedules
 - Participation leaves good impression
 - Deliverables
 - Filing deadlines (CPT, Graduation, etc.)

RICE UNIVERSITY Requirements (CONT'D)

- Buy and read the textbooks
 - Not all courses require textbooks
 - Those that do assume you are reading the material
- Be prepared to do outside research to keep up in class if necessary. This is Master's program.

Administrative

- Facilities (DH and DH MSTAT Room)
 - ONLY M.STAT Students permitted
 - Keep M.Stat and library rooms tidy
 - Report equipment outages (printer, etc.)
 - Use color printer sparingly and wisely
- Deadlines
 - Add/Drop
 - Graduation paperwork
 - Request to apply UG Coursework to graduate program (5th year students)
 - Non-thesis master's petition
 - M.Stat student portfolios

Administrative

- Review Department <u>Graduate Student</u> <u>Handbook</u>
- Courses
 - Must be approved prior to each semester
 - 400/500/600 critical to take right course
 - Some NOT ACCEPTABLE

Courses to be counted toward degree:

Courses	# of Credits	Numeric	Grade points	Courses in	# of Credits in	Numeric Grade	Grade points
completed	<u>received</u>	Grade	Received	progress	progress	(GPS completes)	Received
STAT 405	3	4	12	STAT 552	3	3.33	9.99
STAT 411	3	. 4	12	STAT 591	4	4	16
STAT 410	3	3.33	9.99	ENGI 528	3	3.67	11.01
STAT 431	3	3.37	10,11	ENGI 315	3	4	12
STAT 606	3	3.67	11.01	ENGI 610	3	3,67	11.01
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			0				0

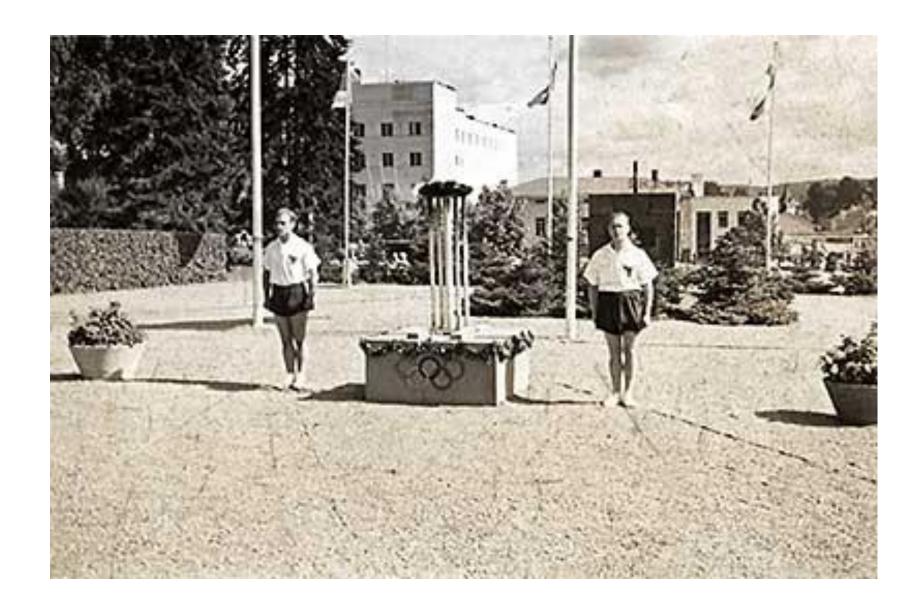
Career

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- Responsibility
 - Start early!
- Internships
 - Citizens
 - OISS requirements
- Employment
- See website
 - See <u>secret website</u>



Let the Games Begin

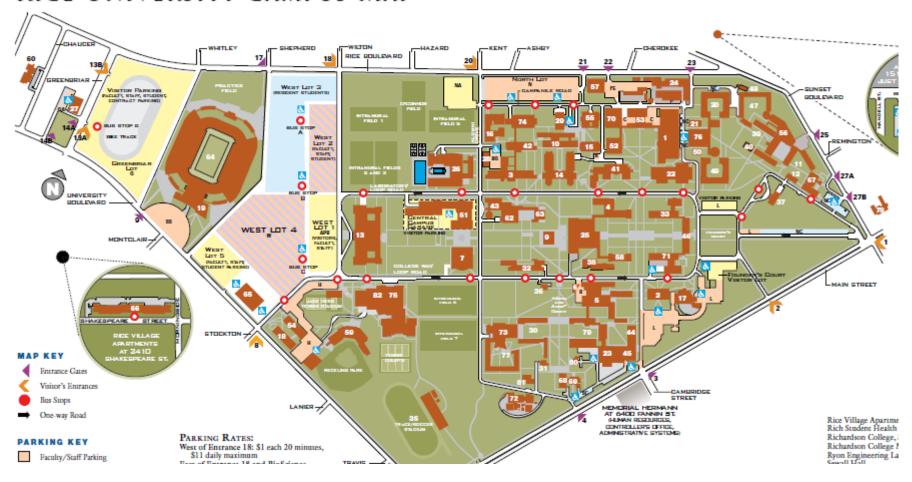


- United States of America (USA)
- State of Texas
- City of Houston



Rice University

RICE UNIVERSITY CAMPUS MAP



- Department events
 - Monday Lunch 12 Noon
 - Colloquia and Conferences
 - Mixers and recognition and poster sessions
- GSA Events
 - GSA Orientation 5-7pm (Valhalla)
 - Katherine Shoemaker is our GSA rep
 - Student Associations
 - Artistic
 - Cultural
 - Science and Engineering

Rice Life



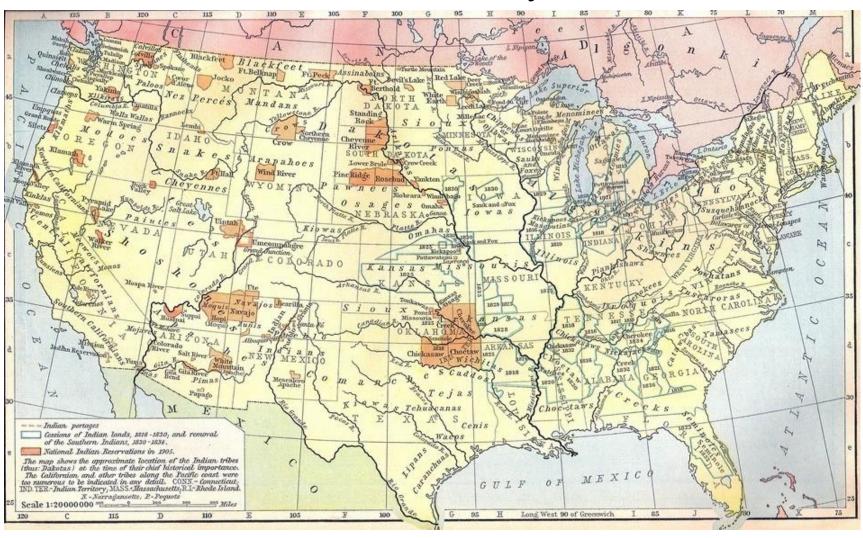
Warnings

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- You MUST meet with your advisor prior to signing up for classes.
 - CPT STAT 540 does NOT COUNT toward M.Stat requirement
 - Colloquium courses (STAT 600, 601) do
 NOT COUNT toward M.Stat requirement
 - Recommended Electives Not Counting to Graduation Requirements do NOT COUNT
 - PASS/FAIL grades do NOT COUNT toward M.Stat requirement
 - Advising required for LOR/career help

RICE UNIVERSITY International Student

Welcome to Rice University and to Texas!



RICE UNIVERSITY OISS Requirements

- International students must report to the Office of International Students & Scholars (OISS) and abide by their regulations
- They have the most up to date and correct information
- OISS knows the current laws and requirements to securely maintain, and to avoid getting in trouble with your visa

OISS Procedures

- Part-time students
- CPT Internships Curricular Practical Training
 - Notify M.Stat director with name of company and parameters of offer such as work performed, salary, dates begin/end
 - Must take Stat 590/591 (1 hr only)
 - OISS Form F-1 Curricular Practical Training
 - Must be processed PRIOR TO working

- Form F-1, CONT'D
 - Deferred semester for summer internships, (take fall STAT 590)
 - Justification letter, StatDept → OISS, with description of course. (Obsolete)
- Internship report (10+ pages)
 - Required for grade in STAT 540
 - Quality of writing and report gives better grade
 - Must be submitted hard copy and electronically

Iroquois Confederacy

