

Faculty Activity Report 2017

Rose-Hulman Institute of Technology

Eric Reyes

Assistant Professor of Mathematics

TEACHING, STUDENT ADVISING AND CURRICULUM DEVELOPMENT

COURSES TAUGHT

<u>Quarter</u>	<u>Course Name and Number</u>	<u>Enrollment</u>
201710	MA223-01 Engineering Statistics I	15
201710	MA223-04 Engineering Statistics I	20
201710	MA386-01 Statistical Programming	12
201710	MA492-01 Senior Project I	1
201710	MA496-05 Senior Thesis I	1
201710	MA497-01 Senior Thesis II	1
201720	MA381-02 Intro Probblty w/ Appl to Stats	26
201720	MA481-01 Mathematical Statistics	3
201720	MA493-01 Senior Project II	1
201720	MA498-01 Senior Thesis III	1
201730	MA223-06 Engineering Statistics I	26
201730	MA223-07 Engineering Statistics I	23
201730	MA482-01 Bioengineering Statistics	12
201730	MA494-02 Senior Project III	1

COURSE DEVELOPMENT

COURSE

MA386 was part of a KEEN course development grant. Using the funds from that project, the weekly portfolio assignments (case studies) were significantly revised.

ADVISING

ACADEMIC ADVISEES

Advisee Count: 5

Minor in Statistics: oversee those students pursuing a minor in statistics.

STUDENT ORG ADVISEES

Advisee Count: 75

InterVarsity Christian Fellowship; this includes multiple speaking engagements each year, and traveling with the group on an overnight Winter Retreat and for a week-long summer retreat. During both retreats, I help lead a significant portion of the program.

THESIS ADVISEES

Advisee Count: 3

Aaron Brown: I advised this student's senior thesis on the use of Normality testing for 1 term (Fall). At the end of the term, he advised me that he would be transferring. We discontinued working together at that point.

Xiaomo Wang: I advised this student's senior thesis on variable selection with the goal of selection and not prediction through the addition of noise variables during the Fall and Winter terms.

Ruinan (Victor) Zhang: I advised this student's senior project throughout the academic year; the project involved using LDA to make informative marketing decisions. He constructed an application for an Indianapolis based company.

PROFESSIONAL DEVELOPMENT ACTIVITIES

PROFESSIONAL DEVELOPMENT

SEMINARS

CONFERENCE PRESENTATION

Tuning Variable Selection via Noise when Prediction is not the Primary Objective, Joint Statistical Meetings (JSM)

Presented work accomplished with senior Thesis student Xiaomo Wang.

Life Lessons from a Young(ish) Professor, Conference Celebrating 75 Years of the NC State Statistics Department

Invited presentation on statistics education.

CONFERENCES ATTENDED

KEEN Winter Conference

Invited by local KEEN organizers to participate in the conference as a bridge to departments other than Engineering.

WORKSHOPS ATTENDED

Real world data and real world questions in the introductory statistics curriculum: a research focused, multidisciplinary project-based approach, CAUSE

Considerations for revising the curriculum of an introductory statistics course to be project-based.

WORKSHOPS PRESENTED

Specifications Grading in a Statistics Classroom

Peer Reviewed Workshop at the US Conference on Teaching Statistics. This 4-hour workshop introduced educators to a grading system I have been implementing in my courses.

RESEARCH PROFILE

Scholarship Subject: statistics, variable selection, statistics education

Study Area: I am interested in the application of statistics to medicine. In particular, I focus on variable selection

Keywords: Biomedical Research, Multidisciplinary
Education/Instructional Programs
Educational Evaluation/Assessment
Educational Improvement
Statistics

PROFESSIONAL SERVICE ACTIVITIES

COMMITTEES

DEPARTMENTAL

Statistics and Operations Research Curriculum Development Group, MA (Chair)

Worked with Dr. Heyman to begin developing a new curriculum for the introductory statistics course. We reviewed a proposal for a Data Science Minor within the department.

Undergraduate Math Conference, MA (Member)

Responsible for the registration and schedule for the Undergraduate Math Conference.

Data Science Core Group, MA (Member)

Interdepartmental group of faculty working to develop the data science minor. We proposed (and got approved) an interdepartmental minor in Data Science.

INSTITUTIONAL

Animal Care and Use (Member)

PROFESSIONAL SERVICE

MEMBERSHIPS

Member of American Statistical Association, American Statistical Association

Member of MAA, Mathematical Association of America

ON CAMPUS SERVICE

Big Data Summit

Worked with Corporate Engagement and Elizabeth Hagerman to host the Big Data Summit; this involved planning as well as presenting at the summit.

High School Math Contest

Organize the registration system for the High School Math contest hosted by the mathematics department.

OTHER

ASA-MAA Joint Committee on Statistics Education

Member representing the MAA. This committee reviews and approves various statements on best practices within statistics education as well as providing resources for educators.