

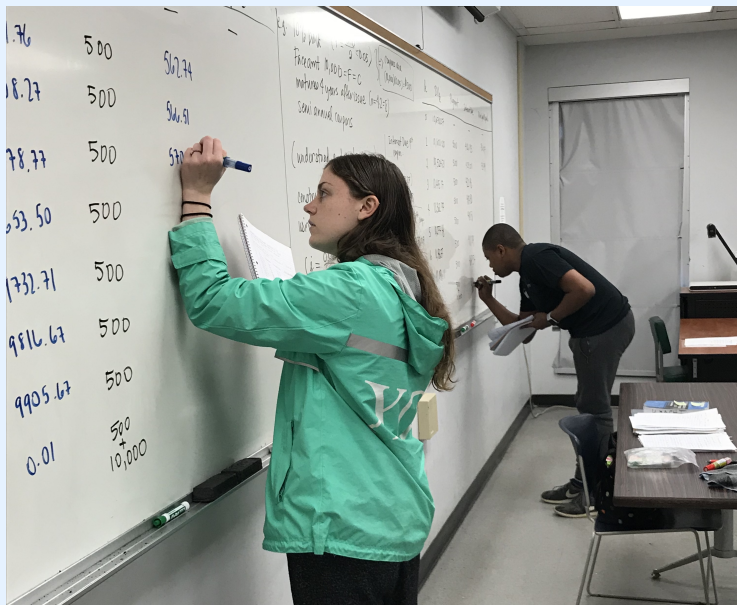
Actuarial Mathematics

Department of Mathematical Sciences

Kent State University

August 28, 2018

Actuarial Mathematics at Kent State University



Highlights of Curriculum changes as of Fall 2018

- ▶ Requirements do **not** change for students on previous catalogs
- ▶ New required courses:
 - ▶ MATH 20011 Decision Making Under Uncertainty
 - ▶ MATH 31011 Proofs in Discrete Mathematics
 - ▶ MATH 32044 Ordinary Differential Equations
- ▶ Computing requirement change:
 - ▶ CS 10062 Programming for Problem Solving in Science *OR*
 - ▶ CS 13001 Comp Sci I: Programming and Problem Solving *OR*
 - ▶ CS 13011 & 13012 Computer Science IA & IB
- ▶ New statistics courses:
 - ▶ MATH 20011 Decision Making Under Uncertainty
 - ▶ MATH 40015 Applied Statistics
 - ▶ MATH 40024 Computational Statistics
 - ▶ MATH 40028 Statistical Learning
- ▶ **For everyone (?):** Allied Area Elective choices are now listed on your GPS Audit in Flashline
 - ▶ You need my approval only for courses not on this list (e.g., MATH 31011, MATH 32044 for those on old catalogs)

See your advisors each semester!

- ▶ Professional Advisor: College of Arts & Sciences
 - ▶ University and College graduation requirements
 - ▶ Can lift your pin to register for classes
- ▶ Faculty Advisor: Dr. Kracht: drkracht.youcanbook.me
 - ▶ Mathematics requirements
 - ▶ Advice on which course to take when
 - ▶ **New!** Can lift your pin to register for classes
- ▶ Additional advisors for other majors, minors
 - ▶ How many courses can be double-counted?

Society of Actuaries: www.soa.org

Casualty Actuarial Society: www.casact.org

Be An Actuary: beanactuary.org

We are designated **UCAP-Advanced Curriculum** by the SOA.

Exam P–Probability: MATH 40011

Exam FM–Financial Mathematics: MATH 30055

Exam IFM–Investment and Financial Markets: MATH 40091

Exam LTAM–Long-Term Actuarial Mathematics: MATH 40055-6

Exam STAM–Short-Term Actuarial Mathematics

Exam SRM–Statistics for Risk Modeling (?)

Exam PA–Predictive Analytics (?)

VEE* Mathematical Statistics: MATH 40012

VEE* Economics: ECON 22060-1

VEE* Accounting and Finance: ACCT 23020, FIN 36063

Internships: Apply in the fall for the following summer



Scholarships: apply in early spring for next academic year!

KSU Math Dept:

- ▶ Cummins Scholarship
- ▶ Bill and Linda Gainer Scholarship
- ▶ Harshbarger Scholarship
- ▶ Math Club Scholarship

National:

- ▶ CAS Trust Scholarship: www.casact.org/trustscholarship
- ▶ International Association of Black Actuaries Scholarship:
www.blackactuaries.org/page/Eligibility
- ▶ Actuarial Foundation Scholarships (several):
www.actuarialfoundation.org/scholarships
- ▶ List of scholarships and links:
www.beanactuary.org/how/?fa=scholarships

Independent Research Project

RESULTS

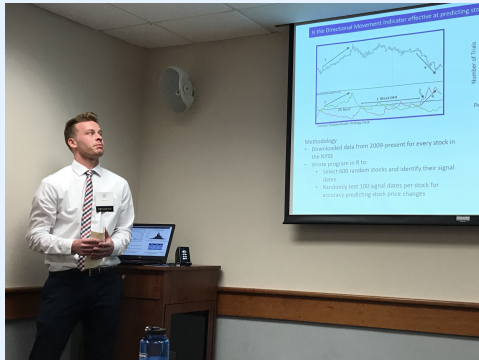
- Results are given in a range from low APV of expenses to high APV of expenses
- Estimates are for semi-private room costs in Ohio, and are sorted by male and female
- Females can consistently expect higher APV compared to male counterparts
- Lowest APV of costs would be for a male over the age of 95 at \$141,700

Low and High Cost Estimates

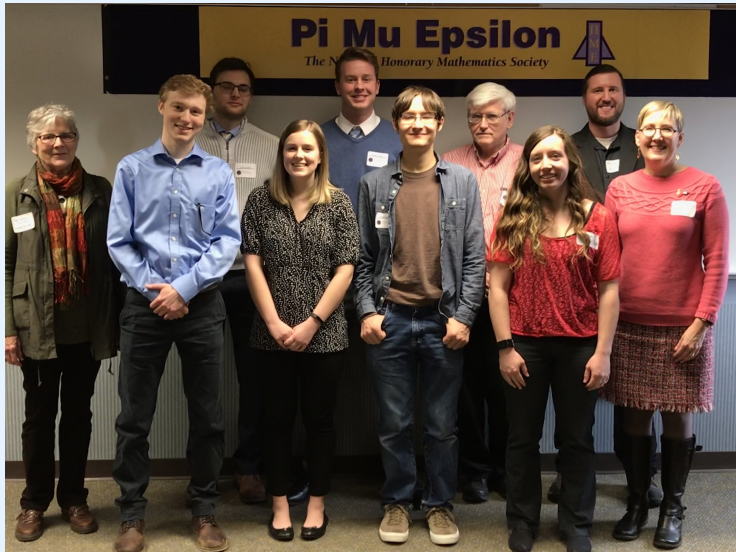
Age	Male Low	Male High	Female Low	Female High
65-64	317,800	411,800	378,800	508,200
65-74	269,800	359,800	329,800	438,200
75-84	278,700	368,800	338,800	447,200
85-84	218,800	288,800	268,800	357,200
95+	141,700	188,800	198,800	268,200

SURE: Summer Undergraduate Research Experience

Apply in spring for summer 2019.



YSU PME Student Conference: Saturday, February 23, 2019



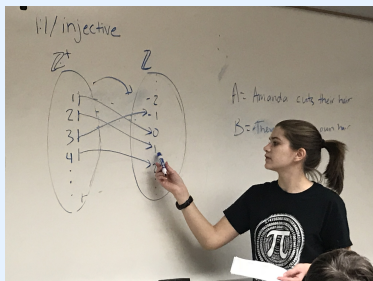
MAA MathFest: July 31–August 3, 2019, Cincinnati, OH



Math Club: Meetings 4:30–5:30 alternate Tuesdays



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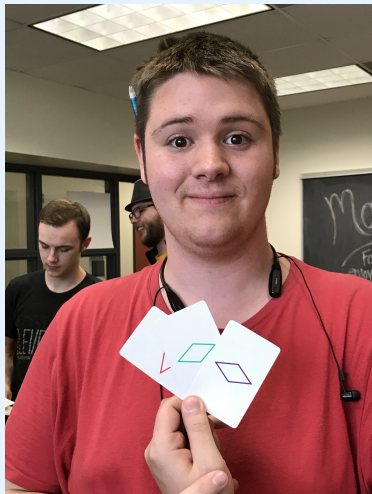
Math Club



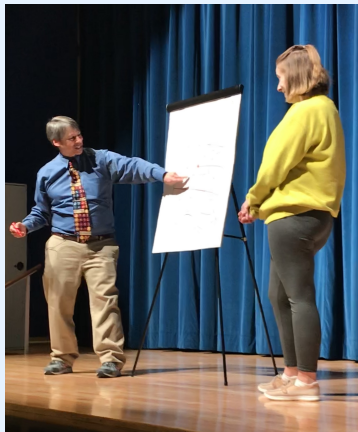
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Mathemagician Art Benjamin



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Actuarial Math Club



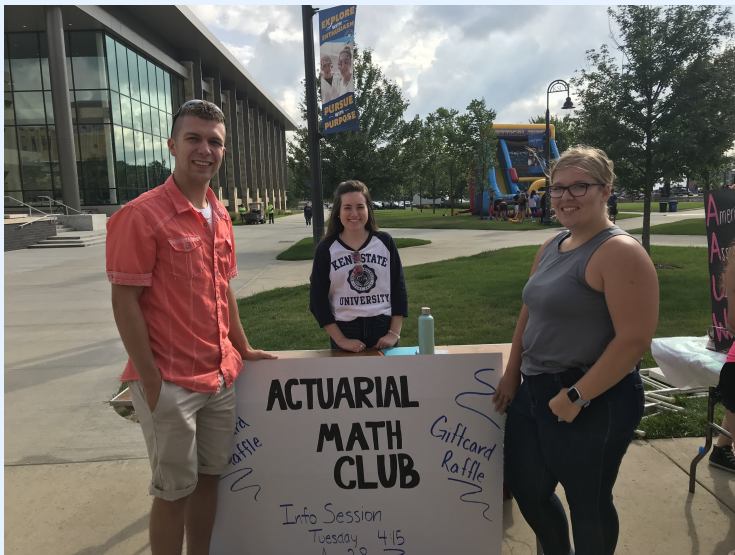
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Your Future!

