

**From:** [Vankeerbergen, Bernadette](#)  
**To:** [Smith, Randy](#); [Reed, Katie](#)  
**Cc:** [Fink, Steven](#); [Jenkins, Mary Ellen](#); [Crocetta, Alison](#)  
**Subject:** Proposal to Revise the Actuarial Science BA & BS  
**Date:** Wednesday, November 6, 2019 2:23:56 PM  
**Attachments:** [Actuarial Science program revision updated Autumn 2020.docx](#)  
[image001.png](#)  
[NMS Panel Cover letter for Actuarial Science BA & BS revision.doc](#)

---

Dear Randy and Katie,

Please find attached a proposal to revise the Actuarial Science BA & BS. The changes were approved by the ASC Curriculum Committee (ASCC) on Friday, November 1.

We are now advancing the proposal for review by CAA. The attached documents are (1) the actual proposal and (2) the Natural and Mathematical Sciences Panel cover letter to ASCC.

The contact person for this proposal in the Department of Mathematics is Bill Husen.

Please use this email as a cover letter indicating that the proposal has been duly reviewed and approved by the appropriate ASC curricular bodies (including the full ASC Curriculum Committee).

Please let me know if you have any questions.

Best regards,  
Bernadette



**Bernadette Vankeerbergen, Ph.D.**  
Program Director, Curriculum and Assessment  
**College of Arts and Sciences**  
154D Denney Hall, 164 Annie & John Glenn Ave.  
Columbus, OH 43210  
Phone: 614-688-5679 / Fax: 614-292-6303  
<http://ascas.osu.edu>

**Department of Molecular Genetics**

---

College of Arts and Sciences  
482 West 12th Avenue  
Columbus, OH 43210-1292

Phone: (614) 292-3594  
Fax: (614) 292-5379  
Email: vaessin.1@osu.edu

October 31, 2019

Dear Alison,

The NMS Panel of the Arts and Sciences Curriculum Committee reviewed the proposed revision to the Actuarial Science BA and BS during the regular NMS Panel meeting on October 7, 2019.

The proposed changes to the Actuarial Science program are in response to feedback suggestions from industry that point to a need for stronger communication skills of Actuarial Science majors. The proposed revisions address this need by adding one communication course (either Comm2110, Comm2131, or Comm2367) to the major prerequisites, and to add a required course (English 3304, Business and Professional Writing) to the major.

Students currently enrolled in the actuarial science program will be held harmless during the transition period to the proposed requirements.

The proposed revision was unanimously approved with two minor recommendations and one contingency that all have been addressed. The NMS Panel forwards the proposed revision to the Actuarial Science BA and BS to the Arts and Sciences Curriculum Committee with a motion to approve.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Harald Vaessin', with a long horizontal flourish extending to the right.

Dr. Harald Vaessin  
Chair, NMS Panel of ASCC  
Professor and Chair, Molecular Genetics

## Mathematics – Actuarial Science Revision

### Summary

The Department of Mathematics would like to request a slight revision in the current requirements for a Bachelors of Arts and Bachelor of Science degree with major in Actuarial Science. This revision is requested to begin in Autumn 2020. The Actuarial Science program maintains close ties with various industry leaders. Strongly suggested feedback from industry has been a desire for increased communication skills from Actuarial Science majors. To this end, the requested revision is designed to enhance the communications skills of its majors and to allow these majors to be more prepared for their eventual careers.

Below are the proposed revisions:

1. As a prerequisite, add a required communication course. This would be satisfied by completing one of the following three courses: **Comm 2110**, **Comm 2131** or **Comm 2367**.
2. Add a required course to the major program: **English 3304** (Business and Professional Writing).

As the Department of Mathematics transitions from the current actuarial science requirements to this proposed revised program, current students in the actuarial science program will be held harmless through this change.

## Actuarial Science – Current Requirements – Advising Sheet

### Part A: Required Prerequisites

	ACCTMIS 2000 Foundations of Accounting (3 hrs)
	Econ 2001.01 Principles of Microeconomics (3 hrs)
	Econ 2002.01 Principles of Macroeconomics (3 hrs)
	Math 1151 Calculus I (5 hrs)
	Math 1152 Calculus II (5 hrs)

☐ Choose **One** of the following

	CSE 1222 Intro to Computer Programming in C++ for Engineers and Scientists (3 hrs)
	CSE 1223 Intro to Computer Programming in Java (3 hrs)
	CSE 2111 Modeling and Problem Solving with Spreadsheets and Databases (3 hrs)

### Part B: Major Program (32-33 hrs)

	BusFin 3120 Foundations of Finance (3 hrs)
	Math 2153 (4 hrs)
	Math 2568 (3 hrs)
	Math 3588 Introduction to Financial Mathematics (3 hrs)
	Math 3618 Theory of Interest (3 hrs)
	Math 4530 or Stat 4201 Probability or Introduction to Mathematical Statistics I (3-4 hrs)
	Math 5632 Financial Economics (3 hrs)
	Stat 4202 Introduction to Mathematical Statistics II (4 hrs)

☐ Choose **One** of the following year-long sequences

	Math 5630 & 5631 Life Contingencies I & II
	Math 5633 & 5634 Loss Models I & II

## Actuarial Science – Proposed Requirements – Advising Sheet

(Additions denoted with \* and bold)

### Part A: Required Prerequisites

	ACCTMIS 2000 Foundations of Accounting (3 hrs)
	Econ 2001.01 Principles of Microeconomics (3 hrs)
	Econ 2002.01 Principles of Macroeconomics (3 hrs)
	Math 1151 Calculus I (5 hrs)
	Math 1152 Calculus II (5 hrs)

☐ Choose **One** of the following

	CSE 1222 Intro to Computer Programming in C++ for Engineers and Scientists (3 hrs)
	CSE 1223 Intro to Computer Programming in Java (3 hrs)
	CSE 2111 Modeling and Problem Solving with Spreadsheets and Databases (3 hrs)

☐ **\*Choose One of the following**

	<b>*Comm 2110 Principles of Effective Public Speaking (3 hrs)</b>
	<b>*Comm 2131 Business and Professional Speaking (3 hrs)</b>
	<b>*Comm 2367 Persuasive Communication (3 hrs)</b>

### Part B: Major Program (35-36 hrs)

	BusFin 3120 Foundations of Finance (3 hrs)
	<b>*English 3304 Business and Professional Writing (3 hrs)</b>
	Math 2153 (4 hrs)
	Math 2568 (3 hrs)
	Math 3588 Introduction to Financial Mathematics (3 hrs)
	Math 3618 Theory of Interest (3 hrs)
	Math 4530 or Stat 4201 Probability or Introduction to Mathematical Statistics I (3-4 hrs)
	Math 5632 Financial Economics (3 hrs)
	Stat 4202 Introduction to Mathematical Statistics II (4 hrs)

☐ Choose **One** of the following year-long sequences

	Math 5630 & 5631 Life Contingencies I & II (6 hrs total)
	Math 5633 & 5634 Loss Models I & II (6 hrs total)

**Actuarial Science BS Sample 4-year Schedule (Current)**

	Autumn		Spring	
Year 1	Math 1151 (Math & Logical Analysis GE)	5	Math 1152 (Open GE)	5
	CSE 1222, 1223 or 2111	3	AcctMIS 2000	3
	Econ 2001.03H (Social Science GE)	3	Econ 2002.03H (Social Science GE)	3
	ARTSSCI 1100.01H	1	English 1110	3
	Visual & Performing Arts GE	3	Open GE	3
	Semester Total	15	Semester Total	17
Year 2	Math 2153	4	Math 2568	3
	Math 3618	3	Math 4530 or Stat 4201	3-4
	Foreign Language I GE	4	Foreign Language II GE	4
	Physical Science with Lab GE	5	Second Writing GE	3
			Cultures and Ideas GE	3
	Semester Total	16	Semester Total	16-17
Year 3	Stat 4202	4	Math 3588	3
	BusFin 3120	3	Math 5632	3
	Foreign Language III GE	4	Natural Science GE	3-5
	Literature GE	3	Elective	3
	Elective	3	Elective	3
	Semester Total	17	Semester Total	15-17
Year 4	Math 5630 or 5633	3	Math 5631 or 5634	3
	Biological Science with Lab GE	4	History GE	3
	Elective	3	Elective	3
	Elective	3	Elective	3
	Elective	2	Elective	3
	Semester Total	15	Semester Total	15
			Total Hours	126-129

Social Diversity & Global Studies GEs chosen to overlap other GE courses

**Actuarial Science BS Sample 4-year Schedule (Proposed)**

	Autumn		Spring	
Year 1	Math 1151 (Math & Logical Analysis GE)	5	Math 1152 (Open GE)	5
	CSE 1222, 1223 or 2111	3	AcctMIS 2000	3
	Econ 2001.03H (Social Science GE)	3	Econ 2002.03H (Social Science GE)	3
	ARTSSCI 1100.01H	1	English 1110	3
	Visual & Performing Arts GE	3	Open GE	3
	Semester Total	15	Semester Total	17
Year 2	Math 2153	4	Math 2568	3
	Math 3618	3	Math 4530 or Stat 4201	3-4
	Foreign Language I GE	4	Foreign Language II GE	4
	Physical Science with Lab GE	5	<b>*Comm 2367 (Second Writing GE)</b>	3
			Cultures and Ideas GE	3
	Semester Total	16	Semester Total	16-17
Year 3	Stat 4202	4	Math 3588	3
	BusFin 3120	3	Math 5632	3
	Foreign Language III GE	4	Natural Science GE	3-5
	Literature GE	3	Elective	3
	Elective	3	Elective	3
	Semester Total	17	Semester Total	15-17
Year 4	Math 5630 or 5633	3	Math 5631 or 5634	3
	Biological Science with Lab GE	4	History GE	3
	<b>*English 3304</b>	3	Elective	3
	Elective	3	Elective	3
	Elective	2	Elective	3
	Semester Total	15	Semester Total	15
			Total Hours	126-129

Social Diversity & Global Studies GEs chosen to overlap other GE courses

**Actuarial Science BA Sample 4-year Schedule (Current)**

	Autumn		Spring	
Year 1	Math 1151 (Math & Logical Analysis GE)	5	Math 1152 (Open GE)	5
	CSE 1222, 1223 or 2111	3	AcctMIS 2000	3
	Econ 2001.03H (Social Science GE)	3	Econ 2002.03H (Social Science GE)	3
	ARTSSCI 1100.01H	1	English 1110	3
	Visual & Performing Arts GE	3	Open GE	3
	Semester Total	15	Semester Total	17
Year 2	Math 2153	4	Math 2568	3
	Math 3618	3	Math 4530 or Stat 4201	3-4
	Foreign Language I GE	4	Foreign Language II GE	4
	Physical Science GE	3-5	Second Writing GE	3
			Cultures and Ideas GE	3
	Semester Total	14-16	Semester Total	16-17
Year 3	Stat 4202	4	Math 3588	3
	BusFin 3120	3	Math 5632	3
	Foreign Language III GE	4	Natural Science with Lab GE	4-5
	Literature GE	3	Elective	3
	Elective	3	Elective	3
	Semester Total	17	Semester Total	16-17
Year 4	Math 5630 or 5633	3	Math 5631 or 5634	3
	Biological Science GE	3-5	History GE	3
	Elective	3	Elective	3
	Elective	3	Elective	3
	Elective	2	Elective	3
	Semester Total	14-16	Semester Total	15
			Total Hours	124-130

Social Diversity & Global Studies GEs chosen to overlap other GE courses



**Actuarial Science BA Sample 4-year Schedule (Proposed)**

	Autumn		Spring	
Year 1	Math 1151 (Math & Logical Analysis GE)	5	Math 1152 (Open GE)	5
	CSE 1222, 1223 or 2111	3	AcctMIS 2000	3
	Econ 2001.03H (Social Science GE)	3	Econ 2002.03H (Social Science GE)	3
	ARTSSCI 1100.01H	1	English 1110	3
	Visual & Performing Arts GE	3	Open GE	3
	Semester Total	15	Semester Total	17
Year 2	Math 2153	4	Math 2568	3
	Math 3618	3	Math 4530 or Stat 4201	3-4
	Foreign Language I GE	4	Foreign Language II GE	4
	Physical Science GE	3-5	<b>*Comm 2367 (Second Writing GE)</b>	3
			Cultures and Ideas GE	3
	Semester Total	14-16	Semester Total	16-17
Year 3	Stat 4202	4	Math 3588	3
	BusFin 3120	3	Math 5632	3
	Foreign Language III GE	4	Natural Science with Lab GE	4-5
	Literature GE	3	Elective	3
	Elective	3	Elective	3
	Semester Total	17	Semester Total	16-17
Year 4	Math 5630 or 5633	3	Math 5631 or 5634	3
	Biological Science GE	3-5	History GE	3
	<b>*English 3304</b>	3	Elective	3
	Elective	3	Elective	3
	Elective	2	Elective	3
	Semester Total	14-16	Semester Total	15
			Total Hours	124-130

Social Diversity & Global Studies GEs chosen to overlap other GE courses