

**Degree Program for Bachelor of Science in Actuarial Sciences**  
**Catalog Requirements for 2016/2017 Academic Year** (Expires summer 2023)

Name \_\_\_\_\_ Student ID # **G00** \_\_\_\_\_ Date \_\_\_\_\_

The B.S. in Actuarial Sciences degree is conferred by the College of Arts & Sciences (CAS). Students should meet with advisers in the SBA and in the CAS to ensure they will meet all degree requirements. CAS Academic Advising is located in 221 Varner Hall, 248-370-4567.

Students must earn a 2.0 or better in each of the checked (✓) courses.

		Course	Grade	Transfer	Need	
<b>FOUNDATION KNOWLEDGE AREAS</b>	✓	WRT 150 Composition I (if necessary) - (4)				
	✓	WRT 160 Composition II				
<b>EXPLORATIONS KNOWLEDGE AREAS</b>	Arts	Choose one course to satisfy each of the requirements for the Knowledge Areas from the approved lists found in the General Education section of the 2016/2017 Undergraduate Catalog. (40 credits minimum)				
	Foreign Language & Culture					
	Global Perspective (ECN 202 can fulfill)					
	Literature					
	Natural Science & Technology					
	Western Civilization					
<b>DIVERSITY</b>	U.S. Diversity Course- <i>Use a course from Explorations Knowledge Areas</i>					
<p>All other OU General Education areas are satisfied by courses you will complete throughout the business program. If you have transfer credits, confirm with an adviser that they are applicable.</p> <p>ECN 202 at Oakland University satisfies the Global Perspective requirement. ECN 200 as a transfer course does not satisfy Global Perspective.</p>						
<b>MATHEMATICS &amp; STATISTICS REQUIREMENTS</b>	✓	MTH 061and/or MTH 062 (if necessary)				
	✓	MTH 141 Pre-calculus (if necessary) – (4)				
	✓	MTH 154 Calculus I – (4)				
	✓	MTH 155 Calculus II – (4)				
	✓	MTH 254 Multivariable Calculus - (4)				
	SBC 199 <input type="checkbox"/>	✓	*ACS 300 Foundations of Probability and Calculus - (1)			
	SBC 299 <input type="checkbox"/>	✓	MTH 275 Linear Algebra - (4)			
		✓	STA 226 Applied Probability and Statistics - (4)			
		✓	STA 427 Introduction to Mathematical Statistics I - (4)			
		✓	QMM 241 Statistical Methods for Business II- (3)			
		✓	Choose one: APM 255, APM 433, APM 434, STA 425, or STA 428 – (4) <b>(recommend STA 428)</b>			
<b>ECONOMICS REQUIREMENTS</b>	✓	ECN 202 Global Macroeconomics – (4) Or ECN 200 Macroeconomics– (4)	or ECN 210 6 crs.			
	✓	ECN 201 Microeconomics – (4)				
	ACS 399 <input type="checkbox"/>	✓	ECN 302 Intermediate Macroeconomics - (3) Or <u>ECN 321</u> – (3)			
		✓	ECN 303 Managerial Economics- (3)			
		✓	ECN 405 Econometrics- (3) Or STA 402 Applied Linear Models I - (4)			
<b>FINANCE REQUIREMENTS</b>	✓	ACS 450 Financial Mathematics- (3)				
	✓	FIN 322 Managerial Finance I – (4)				
	✓	FIN 416 Investment Analysis – (3) Or <u>FIN 425 Financial Derivatives</u> - (3)				
	✓	FIN 422 Managerial Finance II – (3)				
	<b>COGNATES</b>	✓	ACC 200 Introductory Financial Accounting – (4)			
✓		ACC 301 Financial Report and Analysis – (3)				
✓		EGR 141 Computer Problem Solving in Engr. & Comp. Sci. – (4)				
✓		WRT 382 Business Writing – (4)				
✓		MIS 314 Business Database Systems - (3)				
✓		<u>MIS 443</u> Business Analytics - (3) or MIS 546				
<b>College Exploratory 12 Credits</b> See College Exploratory Requirement in 2015/16 Undergraduate Catalog.	12 credits in rubric (not MTH or STA) from CAS and not used for General Education Exploratory requirements. ECN is simplest to fulfill. <b>See CAS Adviser for requirements.</b>					

\* ACS 300 is not required for students who earn at least a 3.5 grade in MTH 254

124 credits – minimum required for degree

# Actuarial Science Major with a Minor<sup>^</sup> in Mathematics

## 2016/2017 Sample Student Schedule Starting with MTH 141

<u>Semester 1</u>		<u>Credits</u>	<u>Semester 2</u>		<u>Credits</u>
MTH 141	Pre- Calculus	4	WRT 160#	Composition II	4
WRT 150	Composition I	4	MTH 154##	Calculus I	4
ECN 201***	Prin. of Microeconomics	4	ACC 200	Intro. Fin. Accounting	4
General Education \$\$\$		4	ECN 202*/200	Prin. Global Macro/Macro	4
		<b>16</b>	SBC 199	Achieve I	0
					<b>16</b>
<u>Semester 3</u>			<u>Semester 4</u>		
FIN 322	Managerial Finance	4	FIN 422 <sup>1</sup>	Managerial Finance II (FW)	3
MTH 155	Calculus II	4	<u>FIN 425<sup>1,3,6</sup></u>	<u>Financial Derivatives (w)</u>	
STA 226	Applied Prob. and Stats.	4	Or FIN 416 <sup>1</sup>	Investments	3
ACC 301	Fin Reporting/Analysis (FW)	3	MTH 254	Calculus III	4
SBC 299	Achieve II	0	ECN 302	Intermediate Macro (F)	
ECN 303	Managerial Economics	3	or <u>ECN 321<sup>1,6</sup></u>	<u>MB and Financial Mkts. (ws)</u>	3
		<b>18</b>	ACS 450 <sup>1</sup>	Financial Math I (w) \$\$	3
					<b>16</b>
<u>Semester 5</u>			<u>Semester 6</u>		
MIS 443/546 <sup>5</sup>	Business Analytics (FW)	3	WRT 382**	Business Writing	4
MTH 275	Linear Algebra	4	STA 428 ###	Math Stat II (w)	4
QMM 241	Stat Meth for Bus II	3	EGR 141	Programming	4
STA 427 <sup>2</sup>	Math Stat I (F)	4	MIS 314 <sup>5</sup>	Bus. Database Sys. (FW)	3
ACS 300 <sup>5</sup>	Found. of Prob. and Calc. (F)	1			<b>15</b>
ACS 399	Achieve III (FW)	0			
		<b>15</b>			
<u>Semester 7</u>			<u>Semester 8</u>		
General Education \$\$\$		4	Free elective && or ECN Elective <sup>^</sup> &		3
General Education \$\$\$		4	Free elective && or ACC 210 <sup>^</sup>		4
General Education \$\$\$		4	Free elective && <sup>^</sup>		3
ECN 405 \$	Econometrics (FW)		General Education \$\$\$		4
or STA 402 \$	Applied Linear Models I (F)	3/4			<b>14</b>
		<b>15/16</b>	<b>Total Credits (124 required)</b>		<b>125/126</b>

### FOOTNOTES AND NOTES

<sup>1</sup>FM exam taken in summer after year 2

<sup>3</sup>MFE exam taken in summer after year 3

<sup>5</sup>Not required if admitted prior to 2016-17; however recommended

<sup>2</sup>P exam taken during the junior year (semester 6)

Internship summer after year 3, or during year 3, 4

<sup>6</sup>Underlined course is recommended

### Can also take APM 433, APM 434, APM 255, or STA 425

& **CAS Exploratory requirement** – 12 credits in a rubric (not MTH or STA) from the College of Arts and Sciences and not used for Gen ED Exploratory. Econ is the simplest to fulfill.

&& Other Electives: COM 201 (Public Speaking) or COM 202 (Group Dynamics and Communication) and MGT 350 (Legal Environment of Business) with permission of the School of Business Administration.

### <sup>^</sup>OTHER RELATED MINORS

- **Finance** – Must take ACC 210 in addition to ACC 200, ACC 301, FIN 322, FIN 422, and FIN 416/425
- **Economics** – 18 credits of economics including both ECN 201 and 202, or ECN 210. If ECN 405 is taken, one more course is needed, without ECN 405 two more courses are needed.
- **Statistics** – 20 credits of STA courses including STA 226 and STA 402. Since STA 427 is required, if STA 428, or 425 are taken, one more course is required (not taking STA 402 requires one more course).
- **Bus Analytics** – Must take MIS 447 in addition to MIS 443, MIS 314, QMM 241, ECN 405/STA 402

### GENERAL EDUCATION (GE) REQUIREMENTS

# Satisfies Writing area of GE

## Satisfies Formal Reasoning area of GE

\* ECN 202 Satisfies Global Perspective area of GE

\*\* Satisfies Knowledge Application area of GE and Writing Intensive in GE

\*\*\* Satisfies Social Science area of GE

\$ Satisfies Writing Intensive in the Major

\$\$ Capstone course

\$\$\$ The Natural Science, Literature, Foreign Language and Culture, Arts, and Western Civilization areas must be satisfied by GE courses of the student's choice in each of these areas. US Diversity must also be satisfied by a GE course of the student's choice. This course can also satisfy one of the five GE requirements listed above