Degree Plan of Study for Bachelor of Science in Actuarial Sciences
Catalog Requirements for 2017/2018 Academic Year (Expires summer 2024)

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 130 O'Dowd Hall, 248-370-4567.

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

		Course	Grade	Transfer	Need
FOUNDATION KNOWLEDGE AREAS	✓ WRT 1050 Composition I (if necessary) - (4)				
	✓ WRT 1060 Composition II (4)				
EXPLORATIONS KNOWLEDGE AREAS	Arts				
	Foreign Language & Culture				
	Global Perspective (ECN 2020 can fulfill)				
	Literature				
	Natural Science & Technology				
	Western Civilization				
DIVERSITY	U.S. Diversity Course- *Use a course from Explorations Knowledge Areas*				

Explorations Knowledge Areas note: 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 2017/2018 Undergraduate Catalog. (40 credits minimum)

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.

ECN 2020 at Oakland University satisfies the Global Perspective requirement. ECN 2000 as a transfer course does not satisfy Global Perspective.

		Course	Grade	Transfer	Need
MATHEMATICS & STATISTICS REQUIREMENTS SBC 1990 ☐ SBC 2990 ☐	✓ MTH 0661 and/or MTH 0662 (if necessary)				
	✓ MTH 1441 Pre-calculus (if necessary) – (4)				
	✓ MTH 1554 Calculus I – (4)				
	✓ MTH 1555 Calculus II – (4)				
	✓ MTH 2554 Multivariable Calculus - (4)				
	✓ *ACS 3000 Foundations of Probability and Calculus - (1)				
	✓ MTH 2775 Linear Algebra - (4)				
	✓ STA 2226 Applied Probability and Statistics - (4)				
	✓ STA 4227 Introduction to Mathematical Statistics I - (4)				
	✓ QMM 2410 Statistical Methods for Business II- (3) or STA 4330 (4)				
	✓ Choose one: APM 2555, APM 4333, APM 4334, STA 4225, or STA 4228 – (4) **(recommend STA 4228 (4))**				
ECONOMICS REQUIREMENTS ACS 3990 ☐	✓ ECN 2020 Global Macroeconomics – (4) Or ECN 2000 Macroeconomics– (4)				
	✓ ECN 2010 Microeconomics – (4)				
	✓ ECN 3210 Fin. Mrkts & Economy (3), Or ECN 3020 Intermed. Macro. (3)				
	✓ ECN 3810 Mathematical Anal./Economists (3), Or ECN 3030 Mgrl. Econ. (3)				
	✓ ECN 4050 Econometrics- (3) Or STA 4002 Applied Linear Models I - (4)				
	✓ ACS 4550 Financial Mathematics- (3)				
FINANCE REQUIREMENTS	✓ FIN 3220 Managerial Finance I – (4)				
	✓ FIN 3600 Investment Analysis – (3) Or FIN 4250 Fin. Derivatives- (3)				
	✓ FIN 3720 Managerial Finance II – (3)				
COGNATES	✓ ACC 2000 Introductory Financial Accounting – (4)				
	✓ ACC 3010 Financial Report and Analysis – (3)				
	✓ EGR 1400 Computer Problem Solving in Engr. & Comp. Sci. – (4)				
	✓ WRT 3082 Business Writing – (4)				
	✓ MIS 3140 Business Database Systems - (3)				
	✓ MIS 4460 Business Analytics - (3)				
College Exploratory 12 Credits See College Exploratory Requirement in 2017/18 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. **See CAS Adviser for requirements.**				

Economics requirements note (ECN 2020/ECN 2010 rows): or ECN 2100 6 crs.

* ACS 3000 is not required for students who earn at least a 3.5 grade in MTH 2554   **124 credits – minimum required for degree**

Doing Well in Calculus is Extremely Important

Sample Student Schedule – August, 2017   *Starting with MTH 1441/1554*
2017-18 Catalog - Actuarial Science Major with a Minor^ in Mathematics

First course listed is preferred course to take **Courses in Red NOT required but preferred**

Semester 1	Credits	Semester 2	Credits
MTH 1441 Pre-Calculus Or MTH 1554* Calculus I	4	MTH 1554*Calculus I Or MTH 1555 Calculus II	4
WRT 1050 Comp I Or WRT 1060[#] Comp II	4	WRT 1060[#] Comp II Or EGR 1400 Comp Prob Sol	4
ECN 2010* Principles of Microeconomics Or ECN 2020* Principles of Global Macroeconomics	4	ECN 2020*,[10] Principles of Global Macroeconomics Or ECN 3210[A,3] MB, Fin Mkt	4
ACC 2000 Financial Accounting Or General Education[$$$]	4	ACC 2000 Financial Accounting Or ACC 2100[2,9] Managerial Accounting	4
SBC 1990 Achieve I	0	SBC 2990 Achieve II	0
	16		**16**

Summer-ACC 2100[2,9] Managerial Accounting needed if taking FIN 3220 in fall   **4**

Semester 3	Credits	Semester 4[A] Light load to study for FM exam	Credits
MTH 1555 Calculus II Or MTH 2554 Calculus III	4	MTH 2554 Calculus III Or MTH 2775 Linear Algebra	4
FIN 3550[1] Finance for ACS Or FIN 3220[2] Managerial Finance	4	MIS 4460[D] Business Analytics (FW) Or FIN 3720[2] Managerial Finance 2 (FW) *only* if FIN 3220 is taken	3
ECN 3810[11] Mathematical Analysis for Economists Or ECN 3030 Managerial Economics	3	ECN 3210[A,3] MB and Financial Markets (WS)	3
STA 2226 Applied Probability and Statistics	4	ACS 4550[A,$$] Financial Math I (W)	3
ACS 3990 Achieve III (FW)	0	*Start studying for FM exam March 1[a]*	**13**
ACC 3010[2,9] Fin. Rep. (FW) *only* if FIN 3220 is taken	3 or 0		
	18 or 15	*Try for a finance or data analytics internship for Summer*	

Semester 5[B] Light load to study for P exam	Credits	Semester 6	Credits
STA 4227[B] Intro. to Mathematical Statistics I (F)	4	WRT 3082* Business Writing Or QMM 2410 Statistical Methods for Business II	4 or 3
ACS 3000[4] Found. of Probability and Calculus (F)	1	STA 4228[8] Mathematical Statistics II (W) Or APM 2555 DifyQ-Matrix Alg	4
MTH 2775 Linear Algebra Or QMM 2410[6,8] Statistical Methods for. Bus. II	4	EGR 1400 Computer Problem Solving	4
MIS 4470[&,C,D] Business Analytics (FW)	3	MIS 3130[5] Information & Data Management (W) Or MIS 3140 (Preq 3000)	3
Start studying for P exam Nov 1[b]	**12**		**14 - 15**
Summer - WRT 3082* Business Writing	**4**		

Semester 7	Credits	Semester 8	Credits
General Education[$$$]	4	Free elective[&]	3 or 4
General Education[$$$]	4	Free elective[&]	3 or 4
ACS 4660[7,E] Financial Economics (F) Or General Education[$$$]	3 or 4	FIN 4250[7] Financial Derivatives (W) Or General Education[$$$]	3 or 4
ECN 4050[$,C,D] Econometrics (F) Or STA 4002[$,C,D] Applied Linear Models I (F)	3 or 4	General Education[$$$]	4
Free elective[&,^]	3 or 4	FIN 3600[9] Investments	3
	17 - 20		**16 - 19**

Total Credits (124 required)

Doing Well in Calculus is Extremely Important

Sample Student Schedule – August, 2017   *Starting with MTH 1555/2554*
2017-18 catalog - Actuarial Science Major with a Minor^ in Mathematics
First course listed is preferred course to take

Semester 1	Credits	Semester 2	Credits
MTH 1555 Calculus II Or MTH 2554 Calculus III	4	MTH 2554 Calc. III Or MTH 2775 Linear Algebra	4
WRT 1050 Comp. I Or WRT 1600[#] Comp. II	4	WRT 1060[#] Comp II Or EGR 1400 Computer Problem Solving	4
ECN 2010[*] Prin. Microeconomics Or ECN 2020[*] Prin. Global Macroeconomics	4	ECN 2020[*,10] Prin. Global Macro Or ECN 3210[A,3] MB, Fin. Mkt.	4
ACC 2000 Intro. Fin. Acct. Or STA 2226 Applied Probability and Statistics	4	STA 2226 Applied Probability and Statistics Or ACC 2100[2,9] Managerial. Accounting	4
SBC 1990 Achieve I	0	SBC 2990 Achieve II	0
	16		**16**

Summer S1 - QMM 2410[8] Statistical Methods of Business II (3) MUST be taken in S1 to exempt SRM exam. Also ACC 2100[2,9] Managerial Accounting (4) needed if taking FIN 3220 in fall.

Semester 3 Light load to study for P exam	Credits	Semester 4[A] Light load to study for FM exam	Credits
STA 4227[B] Mathematical Statistics I (F)	4	ACS 4550[A,$$] Financial Math I (W)	3
ACS 3000[4] Found. of Probability and Calculus (F)	1	MIS 4460[D] Business Analytics (FW) Or FIN 3720[2] Man. Fin. 2 (FW) only if FIN 3220 is taken	3
MTH 2775 Linear Algebra Or ECN 3810[11] Mathematical Analysis for Econ.	4 or 3	ECN 3210[A,3] Financial Markets and the Economy (WS)	3
FIN 3550[1] Finance for ACS Or FIN 3220[2] Managerial Finance	4	STA 4228[8] Math. Stat. II (W) Or QMM 2410[8] Statistical Methods II Or ACC 3010[9] Fin. Rprt. (FW) if took FIN 3220 in fall 18	4 or 3
ACS 3990 Achieve III (FW)	0		
Start studying for P exam Nov 1[a]	**12 or 13**	*Start studying for FM exam March 1[b]*	**12 or 13**

Semester 5[B]	Credits	Semester 6	Credits
ECN 3810[11] Mathematical Analysis for Economists Or ACC 3010[2,9] Financial Reporting&Analysis (FW)	3	WRT 3082[*] Business Writing Or Free elective[&,^]	3 or 4
APM 2559[6] Dif. Equ. (F)	4	Free elective[&,^]	3 or 4
MIS 4470[&,C,D] Business Analytics (FW)	3	Free elective[&,^]	3 or 4
ECN 4050[$,C,D] Econometrics (F) Or STA 4002[$,C,D] Applied Linear Models I (F)	3 or 4	EGR 1400 Computer Problem Solving	4
WRT 3082[*] Business Writing Or Free elective[&,^]	3 or 4	MIS 3130[5] Information & Data Management (W)	3
	16 or 18		**16 or 19**

Semester 7	Credits	Semester 8	Credits
General Education[$$$]	4	General Education[$$$]	4
General Education[$$$]	4	Free elective[&,^]	3 or 4
ACS 4660[7,E] Financial Economics (F) Or FIN 3600[9] Investments	3	FIN 4250[7] Financial Derivatives (W) Or Free elective[&,^]	3 or 4
General Education[$$$] Or FIN 3600[9] Investments	3 or 4	General Education[$$$]	4
	14 or 15	FIN 3600[9] Investments Or General Education[$$$]	3 or 4
			17 or 20

Total Credits (124 required)