#### B.A. in Mathematics -- Quarter to Semester Translation Table Quarter Requirements (AY 2017-18)

	down to understand by 1001, 2001, 200										
		Quarter Courses	Semester Course Equivalencies (Cours is the same as the quarter course. This can be 11; 1.mainy, many;1.or manymany courses. Anywhere (for any programs) which the quarters courses. Anywhere (for any programs) which the quarters courses. Anywhere (for any programs) which the quarters programs which the quarters courses are coursel, can be used. This information will also be displayed in the course conversion guide. Repeat nules apply.)	Acceptable Semester Course Substitutions (Course in NOT the same as the semester course, but it is exceptable for this procing program explained are also and studient. This information VELL NOT be adjudyed in the course to the student Report and to NOT apply "We are obtained the the student. Report and to NOT apply and	Acceptable Semester Course Repeats (If there is no semester course equivalency, this is the atternative course to allow for grade forgiveness/grade discounting.)	Quarter Units (Current number of units which are required for each requirement area.)	Semester Units (Number of semester units which will be requirement area.)	Notes			
	-	_	_	•	-						
MATH-BA		MATH 211, 212, and 213 (each 4 units, quarters)	MATH 2210 and 2220 (each 4 units, semesters)			12	8	Es studies has completed only MSTH 211 on quarters, then the endeen should complete MSTH 2112025 and MSTH 2225 or studies has completed MSTH 2111 and MSTH 2210 on quarters, then the cudent should take MSTH 2110025 to complete the sequence. Es cudent cell completes MSTH 2210, then the cudent should sale MSTH 2110025 to complete the sequence. Es cudent cell completes MSTH 2210, then the cudent valid only earn credit for MSTH 2111.			
Lower Division Requirements		CSE 201 (4 units, quarters) and MATH 241 (2 units, quarters)		CSE 2010		6	4	If a student has completed only MATH 261 on quarters, the student will still need to complete CSS 2000. If a student has only completed CSS 201 on quarters, then they have met the major requirement for this area but may still need to take additional unit() to meet the total units required for graduation.			
		MATH 270	MATH 2270			4	3	If a student has completed only MATH 253 on quarters, then the student should complete MATH 2310025 and MATH 2330 if a student has completed MATH 253 and MATH 253 on			
		MATH 251, 252, and 331 (each 4 units, quarters)	MATH 2310 and 2320 (each 4 units, semesters)			12	8	If a student has completed only MANH 23 on quarters, then the student should complete MANH 231 on a student has completed MANH 231 on a student has completed MANH 231 on a quarters, then the student should complete MANH 231 on Quarters, then the student should complete MANH 231 on quarters, then the student should complete MANH 231 on quarters, then the student should complete.  MANH 220 to complete the sequence.			
		MATH 329	MATH 3329			4	3				
		MATH 345	MATH 3345			4	3	· · · · · · · · · · · · · · · · · · ·			
Upper Division Requirements	Required courses	MATH 355		MATH 3100		4	4				
		MATH 372	MATH 3372 MATH 3460			4	3				
		MATH 465 MATH 545	MATH 3460	MATH 4600		4	3				
		MATH 545 MATH 553	MATH 4300	101111111111111111111111111111111111111		4	4				
		MATH 320	MATH \$320			-					
		MATH 455	MATH 4455								
		MATH 470	MATH 4270								
		MATH 474			MATH 3953			If a student uses MATH 3953 (directed study) as a grade replacement substitute for MATH 474, then the topic for the directed study course should be			
		MATH 480	MATH S480					connected to the content of MATH 474.			
		MATH 485	MATH 4485								
	Twelve units of mathematics	MATH 510	MATH 5510								
	Twelve units of mathematics electives chosen from the	MATH 529	MATH 5529								
Electives	following in consultation with an	MATH 531	MATH 5310	· · · · · · · · · · · · · · · · · · ·		12	9-10				
	advisor	MATH 546		MATH 4600 (4 units, semesters) or MATH 5600 (3 units, semesters)							
		MATH 554	MATH 5300					If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should take MATH 4600			
		MATH 555	MATH 5550					as a substitute for MATH 546. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545-546 sequence on semesters,			
		MATH 557	MATH 5170					then the student can substitute MATH 4600 for MATH 545 and can substitute MATH 5600 for MATH 546.			
		MATH 565	MATH 5565								
		MATH 570			MATH 4455			If a student is uses MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester elective			
		MATH 576			MATH 4360			exclusions for MATH 455.			
		MATH 595D	MATH 5953		Total	74	56-57				

#### B.S. in Mathematics -- Quarter to Semester Translation Table Quarter Requirements (AY 2017-18)

			Semester Course	Acceptable Semester				
			Equivalencies	Course Substitutions				
			(Course is the same as the quarter course. This can be 1:1;	(Course is NOT the same as the semester course, but it is				
			1:many; many:1; or many:many	acceptable for this particular				
			courses. Anywhere (for any	program requirement area				
			program) which the quarter course was required or listed,	for all students. This Information WILL NOT be	Acceptable Semester Course Repeats			
			this (these) semester course(s)	displayed in the course	(If there is no semester course	Quarter Units	Semester Units	
1	1	1	can be used. This information will	conversion guide, but will be reflected on the PAWS as a	(If there is no semester course equivalency, this is the	(Current number of units which are	(Number of semester units which will be	1
			also be displayed in the course conversion guide. Repeat rules	reflected on the PAWS as a choice for the student.	alternative course to allow for grade forgiveness/grade	units which are required for each	units which will be required for each	
		Quarter Courses	apply.)	Repeat rules DO NOT apply.)	discounting.)	requirement area.)	requirement area.)	Notes
Core Requirements		MATH 211, 212, and 213	MATH 2210 and 2220					If a student has completed only MATH 211 on quarters, then the student should complete MATH 2120025 and MATH 2200. If a student has completed MATH 212 on quarters, then the student should take MATH 2120025 to complete the sequence. If a student only completes MATH 2120, then the student will only som credit for MATH 211.
		(each 4 units, quarters)	(each 4 units, semesters)			12	8	quarters, then the student should take MATH 2130Q25 to complete the sequence. If a student only completes MATH 2210, then the student will only earn credit for MATH 211.
Lower Division Requirements		CSE 201 (4 units, quarters) and MATH 241		CSE 2010		6	4	If a student has completed only MATH 241 on quarters, the student will still need to complete CSE 2010. If a student has only completed CSE 201 on quarters, then they have met the major
Lower Division Requirements	Required courses	(2 units, quarters)		CSE 2010			-	If a student has completed only MATH 241 on quarters, the student will still need to complete CSE 2010. If a student has only completed CSE 2010 on quarters, then they have met the major requirement for this area but may still need to take additional untity) to meet the total units required for graduation.
		MATH 270 MATH 251, 252, and 331 (each	MATH 2270 MATH 2310 and 2320			4	3	If a student has completed only MATH 251 on quarters, then the student should complete MATH 2310Q25 and MATH 2320. If a student has completed MATH 252 and MATH 252 on quarters, then the student should complete MATH 2310Q25 to complete the sequence. If a student has completed MATH 251 and MATH 231 on quarters, then the student should complete
		4 units, quarters)	(each 4 units, semesters)			12	8	quarters, then the student should complete MATH 331 DQ25 to complete the sequence. If a student has completed MATH 251 and MATH 331 on quarters, then the student should complete MATH 2320 to complete the sequence.
		MATH 329	MATH 3329			4	3	
		MATH 345	MATH 3345	MATH 3100		4	3 4	
Upper Division Requirements	Required courses	MATH 355 MATH 372	MATH 3372	MAIII 3200		4	3	
		MATH 46S	MATH 3460	MATH 4600		4	3 4	
		MATH 545 MATH 553	MATH 4300	MINITI 4000		4	4	
Concentration (40-56) - Students n	nust choose either the gen	eral track or one of the applied cor	ncentrations which follow		Total	62	47	
General Track (MAGT)  Lower Division Requirement	Required course	PHYS 221	PHYS 2500			5	4	
		MATH 320	MATH 3320					
		MATH 455 MATH 470	MATH 4455 MATH 4270					
	Group A	MATH 474			MATH 3953			If a student uses MATH 3953 (directed study) as a grade replacement substitute for MATH 474, then the topic for the directed study course should be
Electives (Thirty-six units of	(Applied Mathematics)	MATH 557 MATH 565	MATH 5170 MATH 5565					connected to the content of MATH 474.
mathematics electives selected from the following, with at least eight units		MATH 570 MATH 576			MATH 4455			If a student is uses MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester elective
chosen from 500-level courses. At least		MATH 480	MATH 3480		ment H 43bU	36	27-28	equivalent for MATH 455.
tweleve units must be chosen from		MATH 485	MATH 4485					
Group A, and at least twelve units must be chosen from Group B.)	C 0	MATH 510 MATH 529	MATH 5510 MATH 5529					If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should take MATH 4600 as
Joseph more Group 6.)	Group B (Pure Mathematics)	MATH 531	MATH 5310					a substitute for MATH 546. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545-546 sequence on semesters, then the student can substitute MATH 4600 for MATH 545 and can substitute MATH 5600 for MATH 546.
		MATH 546 MATH 554	MATH 5300	MATH 4600 or MATH 5600				tine students can substitute MATH 4600 for MATH 545 and can substitute MATH 5600 for MATH 546.
		MATH 555 MATH 595D	MATH 5550					
		molt 0300	MATH 5953		Total	41	31-32	
Concentration in Biology (MABC)								
		BIOL 200, 201, and 202	BIOL 2010 and 2020			15	10	
Lower Division Requirements	Required courses	(each 5 units, quarters)	(each 5 units, semetsters)					
		CHEM 21S CHEM 216	CHEM 2100 CHEM 2200			6	4	
		BIOL 300	BIOL 3100			5	4	
Upper Division Requirements	Required courses	MATH 470	MATH 4270			4	3	
		MATH 576	MATH 5565	MATH 4360		4	3	
		BIOL 321 BIOL 423	BIOL 3700 (4 units) BIOL 3300 (4 units)					
	A minimum of eight units chosen	BIOL 423 BIOL 450	BIOL 3800 (4 units) BIOL 3800 (4 units)			8-10	8-9	
	from	BIOL 522 BIOL 522	BIOL 5720 (4 units) BIOL 5320 (4 units)			1		
		BIOL 572 BIOL 573	BIOL 5370 (5 units)					
		MATH 320 MATH 455	MATH 3320 MATH 4455					
		MATH 474			MATH 3953			If a student uses MATH 3953 (directed study) as a grade replacement substitute for MATH 474, then the topic for the directed study course should be
Electives		MATH 480 MATH 485	MATH 3480 MATH 4485					connected to the content of MATH 474.
		MATH 510	MATH 5510					
	Four units chosen from	MATH 529 MATH 531	MATH 5529			4	3	
			MATH 5310	MATH 4600 or MATH 5600				If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should take MATH 4600 as
		MATH 546 MATH 554 MATH 555	MATH 5300 MATH 5550					a substitute for MATH S46. If a student has not completed MATH S45 on quarters and wants to complete the MATH S45-S46 sequence on semesters, then the student can substitute MATH 4600 for MATH 545 and can substitute MATH 5600 for MATH S46.
		MATH SSS MATH SS7	MATH 5550 MATH 5170			i		
		MATH 570 MATH 595D	MATH 5953		MATH 4455			If a student is uses MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester elective
					Total	56-58	45-46	equivalent for MATH 45S.
Concentration in Computer Science Lower Division Requirement	e (MACS)	CSE 202 and CSE 330 (each 4 units.						
Upper Division Requirements	Required courses	quarters)	CSE 2020			8	4	If a student has only completed CSE 202 on quarters, then the student must complete CSE 2020.
	-,	CSE 320 CSE 420	CSE 4200	CSE 5953		4	3	The topic for the independent study course should be on a programming languages related topic.
			CJC 4200					
		CSE 431	CSE 4310					
		CSE 500	CSE 5000					
		CSE 500 CSE 501						
	Twelve units chosen from	CSE 500 CSE 501 CSE 512 CSE 513	CSE 5000 CSE 5010 CSE 5120		CSE 5140 or 5160	12	9	
	Twelve units chosen from	CSE 500 CSE 501 CSE 512 CSE 513 CSE 515 CSE 520	CSE 5000 CSE 5010			12	9	
	Twelve units chosen from	CSE 500 CSE 501 CSE 512 CSE 513 CSE 515 CSE 515 CSE 520 CSE 520	CSE 5000 CSE 5010 CSE 5120 CSE 5150 CSE 5200		CSE 5140 or 5160 CSE 4500	12	9	
	Twelve units chosen from	CSE 500 CSE 501 CSE 512 CSE 513 CSE 515 CSE 520 CSE 520 CSE 524 CSE 520 CSE 524 CSE 535 CSE 520 CSE 524	CSE 5000 CSE 5010 CSE 5120 CSE 5120 CSE 5120 CSE 5200 CSE 5200 CSE 5350 CSE 5350			12	9	
	Twelve units chosen from	CSE 500 CSE 501 CSE 512 CSE 513 CSE 513 CSE 513 CSE 520 CSE 520 CSE 524 CSE 535 CSE 550 CSE 550 CSE 550	CSE 5000 CSE 5120 CSE 5150 CSE 5200 CSE 5350 CSE 5350 CSE 5350 CSE 5500 CSE 5500			12	9	
	Twelve units chosen from	CSE 500 CSE 501 CSE 512 CSE 513 CSE 513 CSE 515 CSE 515 CSE 515 CSE 520 CSE 524 CSE 524 CSE 550 CSE 525 CSE 550 MATH 220 MATH 220	CSE 5000 CSE 5120 CSE 5120 CSE 5150 CSE 5350 CSE 5350 CSE 5350 CSE 5300 CSE 5300 MATH 3320 MATH 4455			12	9	
Beclives	Twelve units chosen from	CSE 500 CSE 501 CSE 512 CSE 513 CSE 513 CSE 515 CSE 515 CSE 520 CSE 524 CSE 524 CSE 550 CSE 525 CSE 550 CSE 550 MATH 205 MATH 205	CSE 5000 CSE 5120 CSE 5150 CSE 5350 CSE 5350 CSE 5350 CSE 5350 CSE 5500 CSE 5510 MATH 3320		CSE 4500	12	9	
Bisclives	Twelve units chosen from	CGS 500 CGS 501 CGS 502 CGS 503 CGS 503 CGS 503 CGS 505 MATH 405 MATH 405 MATH 405 MATH 405 MATH 406 MATH	CSE 5000 CSE 5100 CSE 5110 CSE 5150 CSE 5150 CSE 5250 MATH 4250 MATH 4250 MATH 4250 MATH 4250 MATH 4250			12	9	If a student use MATH 1851 liferced study is a goale replacement substitute for MATH 474, then the topic for the directed study course should be connected to the content of MATH 474.
Bectives		CES 500 CES 501 CES 501 CES 512 CES 513 CES 513 CES 515 CES 500 CES 500 CES 505 CES 50	CSE 5000 CSE 5100 CSE 5110 CSE 5110 CSE 5150 CSE 5200 CSE 5500 CSE 5500 CSE 5510 MADN 4455 MADN 4455 MATH 4455 MATH 4455 MATH 4456 MATH 4456		CSE 4500	12	9	If a student uses MATH 3953 (directed study) as a goods registerment substitute for MATH 474, then the topic for the directed study course should be connected to the content of MATH 474.
Bectives	Sixteen units of mathematics electives selected from the	Cot 100 Cot 10	CGS 50000 CGS 50100 CGS 51200 CGS 51200 CGS 51200 CGS 51500 MATH 44455 MATH 51500 MATH 4455 MATH 51500 MATH 51500 MATH 51500		CSE 4500			If a student uses MATH 3951 (directed study) as a goale replacement substitute for MATH 474, then the tops for the directed study course should be connected to the content of MATH 474.
Declives	Sixteen units of mathematics elective selected from the float eight units.	CGS 500 CGS 501 CGS 501 CGS 512 CGS 512 CGS 513 CGS 513 CGS 513 CGS 510 CGS 524 CGS 520 CGS 52	CSE 5000 CSE 5100 CSE 5110 CSE 5150 CSE 5150 CSE 5350 MACH 4255 MACH 4255 MACH 4455 MACH 4455 MACH 4455 MACH 4455	MATH 4600 or MATH 5500	CSE 4500	12 15	9	connected to the content of MATH 474.  If a durisor has connected to the content of MATH 454 on numbers and waster to remotise the MATH 456 distribution connected to their disulated that waster to the connected
Beches	Sixteen units of mathematics electives selected from the	COL 500 COL 50	CSE 50000 CSE 50000 CSE 51000 CSE 51	MATH 4600 or MATH 5600	CSE 4500			connected to the content of MATH 474.  If a durisor has connected to the content of MATH 454 on numbers and waster to remotise the MATH 456 distribution connected to their disulated that waster to the connected
Bectives	Sixteen units of mathematics elective selected from the float eight units.	CG 500 CG 500 CG 500 CG 501 CG 510 CG	CSE 50000 CSE 51000 CSE 51	MATH 4600 or MATH 5600	CSE 4500			connected to the content of MATH 474.
Bechvis	Sixteen units of mathematics elective selected from the float eight units.	CRI 590 CRI 590 CRI 591 CRI 59	CSE 50000 CSE 50000 CSE 51000 CSE 51	MATH 4600 or MATH 5600	CSE 4500			connected to the content of MATH 474.  If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on sewesters, then the student should take MATH 4450 as a substitute for MATH 546. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545.546 sequence on sewesters, then the student can wishthough MATH 5400 for MATH 545 and can wishtstate MATH 5400 for MATH 545.
llactives	Sixteen units of mathematics elective selected from the float eight units.	GR 500 GR 500 GR 500 GR 501 GR 510 GR 511 GR 513 GR	CSE 50000 CSE 50000 CSE 51000 CSE 51	MATH 4600 or MATH 5600	GS 4500			connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 565 deliction on committees, then the student should also MATH 565 deliction on committees, then the student should also MATH 565 on the student can be written the MATH 565 of the student can be written that the student can be with 1660 or MATH 5650 or can substitute MATH 5650 or count substitute MATH 5650 or can substitute MATH 56
Baches	Sixteen units of mathematics elective selected from the float eight units.	CRI 590 CRI 590 CRI 591 CRI 59	CSE 50000 CSE 50000 CSE 51000 CSE 51	Ma211 4500 or MA211 1500	CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	16	12-13	connected to the content of MATH 474.  If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on sewesters, then the student should take MATH 4450 as a substitute for MATH 546. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545.546 sequence on sewesters, then the student can wishthough MATH 5400 for MATH 545 and can wishtstate MATH 5400 for MATH 545.
	Sixteen units of mathematics electrices selected from the facilities selected from the facilities of the facilities of the facilities of the facilities from 550 level courses	GR 500 GR 500 GR 500 GR 501 GR 510 GR 511 GR 513 GR	CSE 50000 CSE 50000 CSE 51000 CSE 51	MATH 4500 or MATH 5500	GS 4500	16		connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 565 deliction on committees, then the student should also MATH 565 deliction on committees, then the student should also MATH 565 on the student can be written the MATH 565 of the student can be written that the student can be with 1660 or MATH 5650 or can substitute MATH 5650 or count substitute MATH 5650 or can substitute MATH 56
Bechves  Concentration in Economics (MAES)  Lover Division Requirements	Sixteen units of mathematics electrices selected from the facilities selected from the facilities of the facilities of the facilities of the facilities from 550 level courses	COL 500 COL 50	CM 19090 CM	MATH 4600 or MATH 5600	CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	16	12-13	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 565 deliction on committees, then the student should also MATH 565 deliction on committees, then the student should also MATH 565 on the student can be written the MATH 565 of the student can be written that the student can be with 1660 or MATH 5650 or can substitute MATH 5650 or count substitute MATH 5650 or can substitute MATH 56
Concentration in Economics (MAEs Lower Division Requirements	Soutien units of resphenentics electrons selected from the following with a least eight units choosen from 500 level courses.  Required courses	CR 500 CR 500 CR 501 CR 511 CR	CM 1909 CM 190	MASTH 4600 or MASTH 1600	CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	16	12-13	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 565 deliction on committees, then the student should also MATH 565 deliction on committees, then the student should also MATH 565 on the student can be written the MATH 565 of the student can be written that the student can be with 1660 or MATH 5650 or can substitute MATH 5650 or count substitute MATH 5650 or can substitute MATH 56
Concentration in Economics (MAE)	Subser units of multimentals subserved in the control of multimentals subserved in the control of the control o	COL 500 COL 50	CM 19090 CM		CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	16	12-13	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 565 deliction on committees, then the student should also MATH 565 deliction on committees, then the student should also MATH 565 on the student can be written the MATH 565 of the student can be written that the student can be with 1660 or MATH 5650 or can substitute MATH 5650 or count substitute MATH 5650 or can substitute MATH 56
Concentration in Economics (MAEs Lower Division Requirements	Soutien units of resphenentics electrons selected from the following with a least eight units choosen from 500 level courses.  Required courses	CR 500 CR 500 CR 501 CR 511 CR	CM 1909 CM 190	MATH 4600 or MATH 1600	CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	16	12-13	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 565 deliction on committees, then the student should also MATH 565 deliction on committees, then the student should also MATH 565 on the student can be written the MATH 565 of the student can be written that the student can be with 1660 or MATH 5650 or can substitute MATH 5650 or count substitute MATH 5650 or can substitute MATH 56
Concentration in Economics (MAEs Lower Division Requirements	Soutien units of resphenentics electrons selected from the following with a least eight units choosen from 500 level courses.  Required courses	CGS 500 CGS 500 CGS 500 CGS 510 CGS 51	CM 1909 CM 190		CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	16	12-13	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 565 deliction on committees, then the student should also MATH 565 deliction on committees, then the student should also MATH 565 on the student can be written the MATH 565 of the student can be written that the student can be with 1660 or MATH 5650 or can substitute MATH 5650 or count substitute MATH 5650 or can substitute MATH 56
Concentration in Economics (MAEs Lower Division Requirements	Sattern units of mathematics electrics selection from the following with at least eight units closes from 500 level courses and the course of	CS 500 CS 500 CS 500 CS 501 CS 510 CS	COS 10000 COS 10000 COS 1000 C		CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	40 4 4 4 4 4 5	22-25 1 3 3 3 3	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 565 deliction on committees, then the student should also MATH 565 deliction on committees, then the student should also MATH 565 on the student can be written the MATH 565 of the student can be written that the student can be with 1660 or MATH 5650 or can substitute MATH 5650 or count substitute MATH 5650 or can substitute MATH 56
Concentration in Economics (MAEs Lower Division Requirements	Soutien units of resphenentics electrons selected from the following with a least eight units choosen from 500 level courses and the contract of the contract	GGS 500 GGS 500 GGS 501 GGS 513 GGS 51	CSE 1909 ANTH 4455 ANTH 1405 ANT		CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	16	12-13	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 56 deliction on committee, to the fine student should also MATH 560 on advertise for MATH 566.  If a student has compliced MATH 566 on quarters and work to operation and work to complete the MATH 565 of the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be
Concentration in Economics (MAEs Lower Division Requirements	Sattern units of mathematics electrics selection from the following with at least eight units closes from 500 level courses and the course of	COS 500 COS 500 COS 500 COS 501 COS 510 COS 51	COS 19000 COS 19000 COS 1900 C		CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	40 4 4 4 4 4 5	22-25 1 3 3 3 3	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 56 deliction on committee, to the fine student should also MATH 560 on advertise for MATH 566.  If a student has compliced MATH 566 on quarters and work to operation and work to complete the MATH 565 of the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be
Concentration in Economics (MAEs Lower Division Requirements	Sattern units of mathematics electrics selection from the following with at least eight units closes from 500 level courses and the course of	COS 500 COS 500 COS 500 COS 501 COS 510 COS 51	COS 1909 COS		CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	40 4 4 4 4 4 5	22-25 1 3 3 3 3	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 56 deliction on committee, to the fine student should also MATH 560 on advertise for MATH 566.  If a student has compliced MATH 566 on quarters and work to operation and work to complete the MATH 565 of the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be
Concentration in Economics (MAEs Lower Division Regularements	Sattern units of mathematics electrics selection from the following with at least eight units closes from 500 level courses and the course of	COS 500 COS 50	COS 19000 COS 19		CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	40 4 4 4 4 4 5	22-25 1 3 3 3 3	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 56 deliction on committee, to the fine student should also MATH 560 on advertise for MATH 566.  If a student has compliced MATH 566 on quarters and work to operation and work to complete the MATH 565 of the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be
Concentration in Economics (MAEE Lawer Division Requirements Upper Division Requirements	Sattern units of mathematics electrics selection from the following with at least eight units closes from 500 level courses and the course of	CRE 500 CRE 500 CRE 501 CRE 511 CRE 51	COS 1909 COS		CSE 4000  MATIN 2003  MATIN 4465  MATIN 4465  MATIN 4465	40 4 4 4 4 4 5	22-25 1 3 3 3 3	connected to the content of MATH 474.  If a student has completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should take MATH 4400 as a substitute for MATH 546. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545 545 seguence on semesters, then the student can substitute MATH 5400 of MATH 546.  If a student is used MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 455.
Concentration in Economics (MAEs Lower Division Requirements	Satern units of mathematics electrics selected from the following with at least eight units closes from 500 level courses and the selectric select	COS 500 COS 50	COS 19000 COS 19		CSE 4500  MATH 3953  MATH 4955  MATH 4655  MATH 4655	40 4 4 4 4 4 5	22-25 1 3 3 3 3	connected to the content of MATH 474.  If a student has compliced MATH 565 on quarters and work to complete the MATH 56 deliction on committee, to the fine student should also MATH 560 on advertise for MATH 566.  If a student has compliced MATH 566 on quarters and work to operation and work to complete the MATH 565 of the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be MATH 565 on the student can be should be
Concentration in Economics (MAEE Lower Division Requirements topper Division Requirements	Satern units of mathematics electrics selected from the following with at least eight units closes from 500 level courses and the selectric select	CRE 500 CRE 501 CRE 511 CRE 51	COS 1909 COS		CSE 4000  MATIN 2003  MATIN 4465  MATIN 4465  MATIN 4465	40 4 4 4 4 4 5	22-25 1 3 3 3 3	connected to the content of MATH 474.  If a student has completed MATH 545 on quarters and works to complete the MATH 546 elective on semesters, then the student should take MATH 4600 as a substitute for MATH 545. If a student has not completed MATH 545 or quarters and works to complete the MATH 545.546 sequence on semesters, then the student can which of MATH 545.546 sequence on semesters, then the student rays and which 64000 MATH 546.  If a student is used MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester elective repeated for MATH 455.  If a student is used MATH 455.  If a student is used MATH 455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester elective repeated for MATH 455.
Concentration in Economics (MAEE Lower Division Requirements topper Division Requirements	Satern units of mathematics electrics selected from the following with at least eight units closes from 500 level courses and the selectric select	GG 590 GG 590 GG 590 GG 591 GG 691 GG	COS 1909 COS		CSE 4000  MATIN 2003  MATIN 4465  MATIN 4465  MATIN 4465	40 4 4 4 4 4 5	22-25 1 3 3 3 3	connected to the content of MATH 474.  If a student has completed MATH 545 on quarters and works to complete the MATH 546 elective on semesters, then the student should take MATH 4600 as a substitute for MATH 545. If a student has not completed MATH 545 or quarters and works to complete the MATH 545.546 sequence on semesters, then the student can which of MATH 545.546 sequence on semesters, then the student rays and which 64000 MATH 546.  If a student is used MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester elective repeated for MATH 455.  If a student is used MATH 455.  If a student is used MATH 455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester elective repeated for MATH 455.
Concentration in Economics (MAEE Lower Division Requirements supper Division Requirements	Sattern units of mathematics electrics selected from the following part has task eight units observed from 500 level courses to the course of	CR 1500 CR 1501 CR 150	COS 1909 COS	MATH 4360	CSE 4000  MATIN 2003  MATIN 4465  MATIN 4465  MATIN 4465	20 4 4 4 4 4 1 16	25-23 2-3 3 3 3 3 3 12	connected to the content of MATH 474.  If a student has completed MATH 545 on quarters and works to complete the MATH 546 electric on semesters, then the student should take MATH 4600 as a substitute for MATH 545. If a student has not completed MATH 545 or quarters and warts to complete the MATH 545.546 sequence on semesters, then the student raw workshow for MATH 545.546 sequence on semesters, then the student raw workshow for MATH 545 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric engagement for MATH 545.  If a student is used MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric engagement for MATH 455.  If a student is used MATH 455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric engagement for MATH 455.  If a student is used MATH 455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric engagement for MATH 455.  If a student is used MATH 455 as grade replacement substitute for MATH 474, then the topic for the directed study course should be connected to the content of MATH 474.
Concentration in Economics (MAEE Lower Division Requirements supper Division Requirements	Sattern units of mathematics electrics selected from the following part has task eight units observed from 500 level courses to the course of	GR 590 GR 590 GR 591 GR 513 GR	COS 1909 COS		CSE 4000  MATIN 2003  MATIN 4465  MATIN 4465  MATIN 4465	20 4 4 4 4 4 1 16	25-23 2-3 3 3 3 3 3 12	Connected to the content of MATH 455 and quarters and wants to complete the MATH 466 electric on semesters, then the student should tale MATH 460 as a solution for MATH 465 in Complete the MATH 465 or a solution for MATH 465 in Complete the MATH 465 or a solution for MATH 465 in Complete the MATH 465 or a solution for MATH 465 in Complete the MATH 465 or a solution for MATH 465 in Complete the MATH 465 or a solution for MATH 465 in Complete the MATH 465 or a solution for MATH
Concentration in Economics (MAEE Lower Division Requirements topper Division Requirements	Sattern units of mathematics electrics selected from the following part has task eight units observed from 500 level courses to the course of	GR 500 GR	COS 1909 COS	MATH 4360	CSE 4000  MATIN 2003  MATIN 4465  MATIN 4465  MATIN 4465	20 4 4 4 4 4 1 16	25-23 2-3 3 3 3 3 3 12	connected to the content of MATH 474.  If a student has completed MATH 545 on quarters and works to complete the MATH 546 elective on semesters, then the student should take MATH 4600 as a substituted for MATH 546. If a student has not completed MATH 545 or quarters and warn's to complete the MATH 545.546 sequence on semesters, then the student raw your MATH 545 or good and the student should be MATH 545.546 sequence on semesters, then the student raw you have MATH 4455 to count as a semester election equal to the MATH 545 or good replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester election equal to the MATH 545.  If a student is used MATH 4455 as goods replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester election equal to the MATH 545 or good replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester election equal to the MATH 545 or good replacement substitute for MATH 547, then the topic for the directed study course should be connected to the content of MATH 547.  If a student has completed MATH 545 on quarters and wart to complete the MATH 5476, then the topic for the directed study course should be a substitute for MATH 545 on quarters and wart to complete the MATH 545.646 sequence on semesters, then the student should take MATH 545 on a substitute for MATH 546 or good replacement substitute in substitute for MATH 546 or good replacement substitute in substitute for MATH 546 or good replacement substitute in substitute for MATH 546 or good replacement substitute in substitute for MATH 546 or good replacement substitute for mathematic substitute for MATH 546 or good replacement substitute for mathematic substitute for MATH 546 or good replacement substitute for mathematic
Concentration in Economics (MAEE Lower Division Requirements topper Division Requirements	Sattern units of mathematics electrics selected from the following part has task eight units observed from 500 level courses to the course of	CR 500 CR 501 CR 511 CR	COS 1909 COS	MATH 4360	CSE 4000  MATIN 2003  MATIN 4465  MATIN 4465  MATIN 4465	20 4 4 4 4 4 1 16	25-23 2-3 3 3 3 3 3 12	Te student loss completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 on quarters and wants to complete the MATH 545 of electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 of Set sequence on semesters, then the student can wante want 5400 of MATH 545 of Set sequence on semesters, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545 as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the topic for the directed study course should be connected to the content of MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 5450 on quarters and wants to complete the MATH 545 on count as a semester electric mathematic analysis of MATH 545 and can subcline for MATH 5450 to the student may not use MATH 5455 to count as a semester electric mathematic analysis of MATH 545 and can subcline the MATH 5450 to count as a semester electric mathematic mathematical ma
Concentration in Economics (MAEE Lower Division Requirements supper Division Requirements	Sattern units of mathematics electrics selected from the following part has task eight units observed from 500 level courses to the course of	CR 1500 CR 1501 CR 150	COS 1909 COS	MATH 4360	CSE 4500  MATH 2003  MATH 4555  MATH 4555  MATH 5903	40 4 4 4 4 4 4 5 5	22-23 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	connected to the content of MATH 474.  If a student has completed MATH 545 on quarters and works to complete the MATH 546 elective on semesters, then the student should take MATH 4600 as a substituted for MATH 546. If a student has not completed MATH 545 or quarters and warn's to complete the MATH 545.546 sequence on semesters, then the student raw your MATH 545 or good and the student should be MATH 545.546 sequence on semesters, then the student raw you have MATH 4455 to count as a semester election equal to the MATH 545 or good replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester election equal to the MATH 545.  If a student is used MATH 4455 as goods replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester election equal to the MATH 545 or good replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester election equal to the MATH 545 or good replacement substitute for MATH 547, then the topic for the directed study course should be connected to the content of MATH 547.  If a student has completed MATH 545 on quarters and wart to complete the MATH 5476, then the topic for the directed study course should be a substitute for MATH 545 on quarters and wart to complete the MATH 545.646 sequence on semesters, then the student should take MATH 545 on a substitute for MATH 546 or good replacement substitute in substitute for MATH 546 or good replacement substitute in substitute for MATH 546 or good replacement substitute in substitute for MATH 546 or good replacement substitute in substitute for MATH 546 or good replacement substitute for mathematic substitute for MATH 546 or good replacement substitute for mathematic substitute for MATH 546 or good replacement substitute for mathematic
Concentration in Economics (MAEE Lower Division Requirements supper Division Requirements	Sattern units of mathematics electrics selected from the following wind has taken eight units observed from 500 level courses from 500 level courses and the selectric forces from 500 level courses. Supplied courses for selection of the selectric forces from 500 level courses for selectric forces from 500 level courses. Subtern units chosen from 500 level courses fr	GR 590 GR 590 GR 591 GR 511 GR	COS 1909 COS	MATH 4360	CSE 4500  MATH 2003  MATH 4555  MATH 4555  MATH 5903	20 4 4 4 4 4 1 16	25-23 2-3 3 3 3 3 3 12	Te student loss completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should talk MATH 450 as a solution for MATH 545 on the MATH 545 electric on semesters, then the student should talk MATH 450 as a solution for MATH 545 on the MATH 545 of sequence on semesters, then the student can wanter want 1444 650 for MATH 545 or count as a semester electric explanation for MATH 545 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric explanation for MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric explanation for MATH 445.  If a student is used MATH 455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric explanation for MATH 445.  If a student is used MATH 355 (identical study) as a grade replacement substitute for MATH 474, then the topic for the directed dualy course should be connected to the content of MATH 474.  If a student is completed MATH 545 on quarters and wants to complete the MATH 456 electric on semesters, then the indicate should talk MATH 456 electric on semesters, then the indicate the MATH 455 is discipled on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should be considered that MATH 450 on the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters.
Concentration in Economics (MAEE tower Division Requirements Upper Division Requirements  Beaches  Concentration in Geographic Inform	Solten units of multimatics electrics solicities solici	GR 500 GR 501 GR	COS 1909 COS	MATH 4550  MATH 4500 or MATH 5500	CSE 4500  MATH 2003  MATH 4555  MATH 4555  MATH 5903	40 4 4 4 4 4 4 5 5	22-23 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Te student loss completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 on quarters and wants to complete the MATH 545 of electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 of Set sequence on semesters, then the student can wante want 5400 of MATH 545 of Set sequence on semesters, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545 as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the topic for the directed study course should be connected to the content of MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 5450 on quarters and wants to complete the MATH 545 on count as a semester electric mathematic analysis of MATH 545 and can subcline for MATH 5450 to the student may not use MATH 5455 to count as a semester electric mathematic analysis of MATH 545 and can subcline the MATH 5450 to count as a semester electric mathematic mathematical ma
Concentration in Economics (MAEI Lower Division Regalements Opper Division Requirements Division Requirements	Sattern units of mathematics electrics selected from the following wind has taken eight units observed from 500 level courses from 500 level courses and the selectric forces from 500 level courses. Supplied courses for selection of the selectric forces from 500 level courses for selectric forces from 500 level courses. Subtern units chosen from 500 level courses fr	CR 1500 CR 1501 CR 1501 CR 1511 CR 151	COS 1909 COS	MATH 4360	CSE 4500  MATH 2003  MATH 4555  MATH 4555  MATH 5903	40 4 4 4 4 4 4 5 5	22-23 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Te student loss completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 on quarters and wants to complete the MATH 545 of electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 of Set sequence on semesters, then the student can wante want 5400 of MATH 545 of Set sequence on semesters, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545 as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the topic for the directed study course should be connected to the content of MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 5450 on quarters and wants to complete the MATH 545 on count as a semester electric mathematic analysis of MATH 545 and can subcline for MATH 5450 to the student may not use MATH 5455 to count as a semester electric mathematic analysis of MATH 545 and can subcline the MATH 5450 to count as a semester electric mathematic mathematical ma
Concentration in Economics (MAEL tower Division Requirements Upper Division Requirements  Bectives  Concentration in Geographic Infort Lower Division Requirements	Sattern units of mathematics electrics selection of mathematics electrics selection from the following with at least eight units often from 500 level courses.  The against courses  Selectern units chosen from from from the courses from the course from th	GR 500 GR 501 GR 502 GR	COS 1909 COS	MATH 4550  MATH 4500 or MATH 5500	CSE 4500  MATH 2003  MATH 4555  MATH 4555  MATH 5903	40 4 4 4 4 4 4 5 5	22-23 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Te student loss completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 on quarters and wants to complete the MATH 545 of electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 of Set sequence on semesters, then the student can wante want 5400 of MATH 545 of Set sequence on semesters, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545 as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the topic for the directed study course should be connected to the content of MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 5450 on quarters and wants to complete the MATH 545 on count as a semester electric mathematic analysis of MATH 545 and can subcline for MATH 5450 to the student may not use MATH 5455 to count as a semester electric mathematic analysis of MATH 545 and can subcline the MATH 5450 to count as a semester electric mathematic mathematical ma
Concentration in Economics (MAEE tower Division Requirements Upper Division Requirements  Beaches  Concentration in Geographic Inform	Solten units of multimatics electrics solicities solici	CR 1500 CR 1501 CR 1501 CR 1511 CR 151	COS 1909 COS	MATH 4550  MATH 4500 or MATH 5500	CSE 4500  MATH 2003  MATH 4555  MATH 4555  MATH 5903	40 4 4 4 4 4 4 5 5	22-23 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Te student loss completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 on quarters and wants to complete the MATH 545 of electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 of Set sequence on semesters, then the student can wante want 5400 of MATH 545 of Set sequence on semesters, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545 as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the topic for the directed study course should be connected to the content of MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 5450 on quarters and wants to complete the MATH 545 on count as a semester electric mathematic analysis of MATH 545 and can subcline for MATH 5450 to the student may not use MATH 5455 to count as a semester electric mathematic analysis of MATH 545 and can subcline the MATH 5450 to count as a semester electric mathematic mathematical ma
Concentration in Economics (MAEL tower Division Requirements Upper Division Requirements  Bectives  Concentration in Geographic Infort Lower Division Requirements	Sattern units of mathematics electrics selection of mathematics electrics selection from the following with at least eight units often from 500 level courses.  The against courses  Selectern units chosen from from from the courses from the course from th	GR 500 GR 501 GR 502 GR	COS 1909 COS	MATH 4550  MATH 4500 or MATH 5500	CSE 4500  MATH 2003  MATH 4555  MATH 4555  MATH 5903	40 4 4 4 4 4 4 5 5	29-29 3 3 3 3 3 3 3 3 3 3 4 3 4 3 4 4 4 4 4 3 3 3 3 3 4	Te student loss completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 on quarters and wants to complete the MATH 545 of electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 of Set sequence on semesters, then the student can wante want 5400 of MATH 545 of Set sequence on semesters, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545 as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the topic for the directed study course should be connected to the content of MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 5450 on quarters and wants to complete the MATH 545 on count as a semester electric mathematic analysis of MATH 545 and can subcline for MATH 5450 to the student may not use MATH 5455 to count as a semester electric mathematic analysis of MATH 545 and can subcline the MATH 5450 to count as a semester electric mathematic mathematical ma
Concentration in Economics (MAEL tower Division Requirements Upper Division Requirements  Bectives  Concentration in Geographic Infort Lower Division Requirements	Content units of mathematics electives salected from the content of mathematics electives salected from the content of the con	CR 1500 CR 1501 CR 150	COS 1909 COS	MATH 4550  MATH 4500 or MATH 5500	CSE 4500  MATH 2003  MATH 4555  MATH 4555  MATH 5903	16 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Te student loss completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 on quarters and wants to complete the MATH 545 of electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 of Set sequence on semesters, then the student can wante want 5400 of MATH 545 of Set sequence on semesters, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545 as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the topic for the directed study course should be connected to the content of MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 5450 on quarters and wants to complete the MATH 545 on count as a semester electric mathematic analysis of MATH 545 and can subcline for MATH 5450 to the student may not use MATH 5455 to count as a semester electric mathematic analysis of MATH 545 and can subcline the MATH 5450 to count as a semester electric mathematic mathematical ma
Concentration in Economics (MAEL tower Division Requirements Upper Division Requirements  Bectives  Concentration in Geographic Infort Lower Division Requirements	Content units of mathematics electives salected from the content of mathematics electives salected from the content of the con	GR 500 GR	COS 1909 COS	MATH 4550  MATH 4500 or MATH 5500	CSE 4500  MATH 2003  MATH 4555  MATH 4555  MATH 5903	16 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	29-29 3 3 3 3 3 3 3 3 3 3 4 3 4 3 4 4 4 4 4 3 3 3 3 3 4	Te student loss completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 on quarters and wants to complete the MATH 545 of electric on semesters, then the student should tale MATH 5400 as a solution for MATH 545 of Set sequence on semesters, then the student can wante want 5400 of MATH 545 of Set sequence on semesters, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545 as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 4455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the student may not use MATH 5455 to count as a semester electric expiration for MATH 545, as grade replacement subellists for MATH 570, then the topic for the directed study course should be connected to the content of MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 545 on quarters and wants to complete the MATH 545 on the student may complete MATH 5450 on quarters and wants to complete the MATH 545 on count as a semester electric mathematic analysis of MATH 545 and can subcline for MATH 5450 to the student may not use MATH 5455 to count as a semester electric mathematic analysis of MATH 545 and can subcline the MATH 5450 to count as a semester electric mathematic mathematical ma
Concentration in Economics (MAEL tower Division Requirements Upper Division Requirements  Bectives  Concentration in Geographic Infort Lower Division Requirements	Content units of mathematics electives salected from the content of mathematics electives salected from the content of the con	GR 590 GR 500 GR	COS 1909 COS	MATH 4550  MATH 4500 or MATH 5500	CSE 4500  MATH 2003  MATH 4555  MATH 4555  MATH 5903	16 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	29-29 3 3 3 3 3 3 3 3 3 3 4 3 4 3 4 4 4 4 4 3 3 3 3 3 4	The student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should sale MATH 4600 as a substitute for MATH 545. If it is student has not completed MATH 545 on quarters and wants to complete the MATH 545 on quarters and wants to complete the MATH 545. 546 sequence on semesters, then the student may want to complete the MATH 545. 546 sequence on semesters, then the student may not use MATH 4455 to count as a semester elective exposured to MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester elective exposured to MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester elective exposured to MATH 4457.  If a student has completed MATH 5450 may are all the country of the student may not use MATH 4455 to count as a semester elective exposured to MATH 4457. The country of the student may not use MATH 4455 to count as a semester elective exposured to MATH 4457. The country of the country of the student may not use MATH 4455 to count as a semester elective exposured to make completed MATH 5450 may are not used to make the MATH 4450 may are all the student may not use MATH 4455 to count as a semester elective manufactor of MATH 4450 as a semister elective manufactor of MATH 4455 as grade replacement substitute for MATH 4570, then the student may not use MATH 4455 to count as a semester elective manufactor for MATH 4550 may are manufactor for MATH 4550 may not use MATH 4455 to count as a semester elective manufactor for MATH 4550 may are manufactor for MATH 4550 may not use MATH 4555 to count as a semester elective manufactor for MATH 4550 may not use MATH 4555 to count as a semester elective manufactor for MATH 4550 may may not use MATH 4555 to count as a semester elective manufactor for MATH 4550 may not use MATH 4550 may may not use MATH 4555 to count as a semester elective manufactor for MATH 4550 may not use MATH 4550 may not use MA
Concentration in Economics (MAEL tower Division Requirements Upper Division Requirements  Bectives  Concentration in Geographic Infort Lower Division Requirements	Content units of mathematics electives salected from the content of mathematics electives salected from the content of the con	GRESSON GRESSO	COS 1909 COS	MATH 4550  MATH 4500 or MATH 5500	S14 4000  MATH 9933	16 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	29-29 3 3 3 3 3 3 3 3 3 3 4 3 4 3 4 4 4 4 4 3 3 3 3 3 4	Te student loss completed MATH 545 on quarters and wants to complete the MATH 546 electric on semesters, then the student should talk MATH 450 as a solution for MATH 545 on the MATH 545 electric on semesters, then the student should talk MATH 450 as a solution for MATH 545 on the MATH 545 of sequence on semesters, then the student can wanter want 1444 650 for MATH 545 or count as a semester electric explanation for MATH 545 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric explanation for MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric explanation for MATH 445.  If a student is used MATH 455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric explanation for MATH 445.  If a student is used MATH 355 (identical study) as a grade replacement substitute for MATH 474, then the topic for the directed dualy course should be connected to the content of MATH 474.  If a student is completed MATH 545 on quarters and wants to complete the MATH 456 electric on semesters, then the indicate should talk MATH 456 electric on semesters, then the indicate the MATH 455 is discipled on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should be considered that MATH 450 on the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters, then the student should talk MATH 456 electric on semesters.
Concentration in Economics (MAEL tower Division Requirements Upper Division Requirements  teactives  Concentration in Geographic Infort tower Division Requirements Upper Division Requirements	Content units of mathematics electives salected from the content of mathematics electives salected from the content of the con	GR 500 GR 501 GR	COS 1900 COS	MATH 4550  MATH 4500 or MATH 5500	S14 4000  MATH 9933	16 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	29-29 3 3 3 3 3 3 3 3 3 3 4 3 4 3 4 4 4 4 4 3 3 3 3 3 4	The student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should sale MATH 6400 as a substitute for MATH 545. If it is student has not completed MATH 545 on quarters and wants to complete the MATH 545 of sequence on semesters, then the student should sale MATH 6400 as a substitute for MATH 545. If it is student to south 6400 MATH 545.  If a student is soon MATH 6455 as goode replacement substitute for MATH 570, then the student may not use MATH 6455 to count as a semester electric exposation to MATH 645.  If a student has soon MATH 6455 as goode replacement substitute for MATH 570, then the student may not use MATH 6455 to count as a semester electric exposation to MATH 645.  If a student has completed MATH 545 on quarters and wants to complete the MATH 6474, then the topic for the directed study course should be connected to the content of MATH 645.  If a student has completed MATH 545 on quarters and wants to complete the MATH 6474, then the topic for the directed study course should be connected to the content of MATH 645. If a student has completed MATH 545 on quarters and wants to complete the MATH 6474, then the topic for the directed study course should be content of the student for the student for the MATH 6475 on the student fo
Concentration in Economics (MAEI Lower Division Requirements Upper Division Requirements  teectives  Concentration in Geographic Infort Lower Division Requirements	Solten units of mathematics electrics selected from the following with a float eight critical form the following with a float eight critical float form to the following with a float form to the following with a float following with a float float float following with a float f	GRESSON GRESSO	COS 1909 COS	MATH 4550  MATH 4500 or MATH 5500	S14 4000  MATH 9933	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 4 34 34	The student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should sale MATH 6400 as a substitute for MATH 545. If it is student has not completed MATH 545 on quarters and wants to complete the MATH 545 of sequence on semesters, then the student should sale MATH 6400 as a substitute for MATH 545. If it is student to south 6400 MATH 545.  If a student is soon MATH 6455 as goode replacement substitute for MATH 570, then the student may not use MATH 6455 to count as a semester electric exposation to MATH 645.  If a student has soon MATH 6455 as goode replacement substitute for MATH 570, then the student may not use MATH 6455 to count as a semester electric exposation to MATH 645.  If a student has completed MATH 545 on quarters and wants to complete the MATH 6474, then the topic for the directed study course should be connected to the content of MATH 645.  If a student has completed MATH 545 on quarters and wants to complete the MATH 6474, then the topic for the directed study course should be connected to the content of MATH 645. If a student has completed MATH 545 on quarters and wants to complete the MATH 6474, then the topic for the directed study course should be content of the student for the student for the MATH 6475 on the student fo
Concentration in Economics (MAEL tower Division Requirements Upper Division Requirements  teactives  Concentration in Geographic Infort tower Division Requirements Upper Division Requirements	Solten units of mathematics electrons selected from the following that have right units industrial from the following that have right units indused from 500 kms colored from 500	GES 500 GES 500 GES 501 GES 511 GES 511 GES 513 GES 51	COS 1900 COS	MATH 4550  MATH 4500 or MATH 5500	S14 4000  MATH 9933	16 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	29-29 3 3 3 3 3 3 3 3 3 3 4 3 4 3 4 4 4 4 4 3 3 3 3 3 4	The student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should have MATH 6450 as a substitute for MATH 545. If it is student has not completed MATH 545 on quarters and wants to complete the MATH 545 of sequence on semesters, then the student can wanter MATH 545 of sequence on semesters, then the student for MATH 545. If it is student in a want of the MATH 545 of sequence on semesters, then the student for MATH 545 of sequence on semesters, then the student may not use MATH 4455 to count as a semester electric expension for MATH 545.  If a student is used MATH 545 or gazder replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric expension for MATH 545.  If a student was MATH 385 (identical study) as a grade replacement substitute for MATH 570, then the topic for the directed study course should be contented to the content of MATH 474.  If a student was completed MATH 545 or gazders replacement substitute for MATH 570, then the topic for the directed study course should be contented to MATH 545 as grade replacement substitute for MATH 570, then the topic for the directed study course should be contented to MATH 545 as grade replacement substitute for MATH 571, then the topic for the directed study course should be contented for MATH 555.  If a student was MATH 355 (identical study) as a grade replacement substitute for MATH 571, then the topic for the directed study course should be contented for MATH 555.  If a student was MATH 355 (identical study) as a grade replacement substitute for MATH 572, then the topic for the directed study course should be contented for MATH 555.  If a student was CAMTH 355 (identical study) as a grade replacement substitute for MATH 572, then the topic for the directed study course should be contented for MATH 555.  If a student was completed MATH 556 on quarters and want to complete the MATH 566 elective on semesters, then the student should study down as a seminate
Concentration in Economics (MAEL tower Division Requirements Upper Division Requirements  teactives  Concentration in Geographic Infort tower Division Requirements Upper Division Requirements	Solten units of mathematics electrics selected from the following with a float eight critical form the following with a float eight critical float form to the following with a float form to the following with a float following with a float float float following with a float f	GRESSON GRESSO	COS 1909 COS	MASH 4350  MASH 4500 or MASH 5600  GGGG 3004	S14 4000  MATH 9933	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 4 34 34	It a student has completed MATH 545 on quarters and works to complete the MATH 546 elective on semesters, then the student should take MATH 4600 as a substitute for MATH 545. If a student has see completed MATH 545 or quarters and works to complete the MATH 545.546 sequence on semesters, then the student should take MATH 545.546 sequence on semesters, then the student should take MATH 545.546 sequence on semesters, then the student may not use MATH 4455 to count as a semester election equalisate for MATH 545. If a student has seen MATH 545.546 sequence on semesters in the student may not use MATH 4455 to count as a semester election equalisate for MATH 545. If a student has seen MATH 545 in the student may not use MATH 545 to count as a semester election equalisate for MATH 545. If a student has seen may not use MATH 545 in the student may not use MATH 545 to count as a semester election equalisate for MATH 545. If a student has not may not use MATH 545 in count as a semester election equalisate for MATH 545. If a student has completed MATH 545 on quarters and works to complete the MATH 545 in count as a semester election as a student has completed MATH 545 on quarters and works to complete the MATH 545 in count as a semester election expension for MATH 545 in payment and works to complete the MATH 545 in count as a semester election expension for MATH 545 in quarters and works to complete the MATH 545 in count as a semester election expension for MATH 545 in gas pages replacement substitute for MATH 545 in complete the MATH 545 in count as a semester election expension for MATH 545 in payment and works to complete the MATH 545 in count as a semester election expension for MATH 545 in payment and works to complete the MATH 545 in count as a semester election expension. The mathematic mathematical expension for MATH 545 in payment and works to complete the MATH 545 in the forest of study counts should be connected to the content of MATH 545 in payment and works to complete the MATH 545 in the forest of study cou
Concentration in Economics (MAEL Lower Division Requirements  Upper Division Requirements  Rectives  Concentration in Geographic Infon Lower Division Requirements  Upper Division Requirements	Solten units of mathematics electrons selected from the following that have right units industrial from the following that have right units indused from 500 kms colored from 500	GES 500 GES 500 GES 501 GES 511 GES 511 GES 513 GES 51	COS 1909 COS	MASH 4350  MASH 4500 or MASH 5600  GGGG 3004	S14 4000  MATH 9933	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 4 34 34	The student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should have MATH 6450 as a substitute for MATH 545. If it is student has not completed MATH 545 on quarters and wants to complete the MATH 545 of sequence on semesters, then the student can wanter MATH 545 of sequence on semesters, then the student for MATH 545. If it is student in a want of the MATH 545 of sequence on semesters, then the student for MATH 545 of sequence on semesters, then the student may not use MATH 4455 to count as a semester electric expension for MATH 545.  If a student is used MATH 545 or gazder replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric expension for MATH 545.  If a student was MATH 385 (identical study) as a grade replacement substitute for MATH 570, then the topic for the directed study course should be contented to the content of MATH 474.  If a student was completed MATH 545 or gazders replacement substitute for MATH 570, then the topic for the directed study course should be contented to MATH 545 as grade replacement substitute for MATH 570, then the topic for the directed study course should be contented to MATH 545 as grade replacement substitute for MATH 571, then the topic for the directed study course should be contented for MATH 555.  If a student was MATH 355 (identical study) as a grade replacement substitute for MATH 571, then the topic for the directed study course should be contented for MATH 555.  If a student was MATH 355 (identical study) as a grade replacement substitute for MATH 572, then the topic for the directed study course should be contented for MATH 555.  If a student was CAMTH 355 (identical study) as a grade replacement substitute for MATH 572, then the topic for the directed study course should be contented for MATH 555.  If a student was completed MATH 556 on quarters and want to complete the MATH 566 elective on semesters, then the student should study down as a seminate
Concentration in Economics (MAEL Lower Division Requirements  Upper Division Requirements  Rectives  Concentration in Geographic Infon Lower Division Requirements  Upper Division Requirements	Solten units of mathematics electrons selected from the following that have right units industrial from the following that have right units indused from 500 kms colored from 500	GRESSON GRESSO	COS 1909 COS	MASH 4350  MASH 4500 or MASH 5600  GGGG 3004	SIE 4500  MATH 2553  MATH 2555	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 4 34 34	It a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should take MATH 6400 as a substitute for MATH 545. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545, 546 sequence on semesters, then the student can wanted with 6400 for MATH 545. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545, 546 sequence on semesters, then the student may not use MATH 6455 to count as a semester elective experience for MATH 545. If a student has not MATH 645 as grower replacement substitute for MATH 570, then the student may not use MATH 6455 to count as a semester elective experience for MATH 645.  If a student has not MATH 645 as grower replacement substitute for MATH 570, then the student may not use MATH 6455 to count as a semester elective experience for MATH 645.  If a student has completed MATH 545 on quarters and wants to complete the MATH 646, elective on semesters, then the student should take MATH 6450 as a substitute for MATH 645 in a student has completed MATH 545 on quarters and wants to complete the MATH 645 has completed MATH 6450 as a substitute for MATH 6450 as power replacement substitute for MATH 6450 as completed MATH 6450 as a substitute for MATH 6450 as power replacement substitute for MATH 6450 as completed MATH 6450 as a substitute for MATH 6450 as power replacement substitute for MATH 6450 as completed MATH 6450 as a substitute for MATH 6450 as power replacement substitute for MATH 6450 as completed MATH 6450 as power as a semester elective experience for MATH 6450 as power as a semester elective experience for MATH 6450 as power as a semester elective experience for MATH 6450 as power as a semester elective experience for MATH 6450 as power as a semester elective experience for MATH 6450 as power as a semester elective experience for MATH 6450 as power as a semester elective experience for MATH 6450 as power as a semester elective experience for MATH 6450 as power as
Concentration in Economics (MAEL Lower Division Requirements  Upper Division Requirements  Rectives  Concentration in Geographic Infon Lower Division Requirements  Upper Division Requirements	Solten units of mathematics electrons selected from the following that have right units industrial from the following that have right units indused from 500 kms colored from 500	GR 500 GR 501 GR 502 GR 502 GR 502 GR 502 GR 502 GR 503 GR	COS 1909 COS	MASH 4350  MASH 4500 or MASH 5600  GGGG 3004	S14 4000  MATH 9933	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 4 34 34	Tall student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should tale MATH 6400 as a substitute for MATH 545. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545 of sequence on semesters, then the student should tale MATH 545 of sequence on semesters, then the student raw you do want of the MATH 545 of sequence on semesters, then the student raw you do want of the MATH 545 of sequence on semesters whether sequences to MATH 545 of sequence on semesters whether sequences to MATH 545 of sequence on semesters whether sequences to MATH 545 of sequence on semesters whether sequences to MATH 545 of sequence on semesters whether sequences to MATH 545 of sequence on semesters whether sequences to MATH 545 of sequence on semesters whether sequences to MATH 545 of sequence on semesters whether sequences to MATH 545 of sequence on semesters whether sequences to MATH 545 of sequence on semesters whether sequences to MATH 545 of sequence on semesters, then the topic for the directed dualy course should be connected to the content of MATH 545 on pourters and wants to complete the MATH 545 of sequence on semesters, then the student should take MATH 545 on quarters and wants to complete the MATH 545 of sequence on semesters, then the student should take MATH 545 on quarters and wants to complete the MATH 545 of sequence on semesters, then the student should take MATH 545 on quarters and wants to complete the MATH 545 of sequence on semesters, then the student should take MATH 545 on quarters and wants to complete the MATH 545 or secret as a semester election and such that secret is set to make MATH 545 on counters as semester election and such that secret is set to make MATH 545 on counters as semester election and such that secret is set to make MATH 545 on counters as semester election and such that secret is set to make MATH 545 on counters as semester election and such that secret is set to make MATH 545 on counters as semest
Concentration in Economics (MAEL Lower Division Requirements  Upper Division Requirements  Rectives  Concentration in Geographic Infon Lower Division Requirements  Upper Division Requirements	Solten units of mathematics electrons selected from the following that have right units industrial from the following that have right units indused from 500 kms colored from 500	CRE 500 CRE 501 CRE 511 CRE 51	COS 1909 COS	MASH 4560 or MASH 5600	SE 4000  MACTY 4005  MACTY 400	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 3 3 4 4 4 4 3 3 4	If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should sale MATH 6400 as a substitute for MATH 545. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545. 546 sequence on semesters, then the student should sale MATH 6400 as a substitute for MATH 547 on quarters and wants to complete the MATH 545. 546 sequence on semesters, then the student reason was set to complete the MATH 545. 546 sequence on semesters should be consecred to the content of MATH 545 a good replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester electric expansion to MATH 445.  If a student has completed MATH 545 on quarters and wants to complete the MATH 547, then the topic for the directed study course should be connected to the content of MATH 645.  If a student has completed MATH 545 on quarters and wants to complete the MATH 547, then the topic for the directed study course should be connected to the content of MATH 645. As the content is a semister electric expansion to the content of MATH 645 and content of MATH 645 on quarters and wants to complete the MATH 547, then the topic for the directed study course should be content of MATH 645 and content of MATH 645 on quarters and wants to complete the MATH 547, then the topic for the directed study course should be content of MATH 645 and content of MATH
Concentration in Economics (MAEL Lower Division Requirements  Upper Division Requirements  Rectives  Concentration in Geographic Infon Lower Division Requirements  Upper Division Requirements	Solten units of mathematics electrons selected from the following that have right units industrial from the following that have right units indused from 500 kms colored from 500	GR 500 GR 501 GR 502 GR 502 GR 502 GR 502 GR 502 GR 503 GR	COS 1909 COS	MASH 4560 or MASH 5600	SE 4000  MACTO 3953  MACTO 4955	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 4 34 34	If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should sale MATH 4600 as a substitute for MATH 545. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545. See sequence on semesters, then the student can be MATH 545. See sequence on semesters, then the student raw years and wants to complete the MATH 545. See sequence on semesters, then the student raw years are MATH 545 to count as a semester elective expension to MATH 545. See good replacement substitute for MATH 570, then the student may not use MATH 5455 to count as a semester elective expension to MATH 545. See good replacement substitute for MATH 570, then the student may not use MATH 5455 to count as a semester elective expension to MATH 545.  If a student has completed MATH 545 on quarters and wants to complete the MATH 5474, then the topic for the directed study course should be connected to the content of MATH 545. The student has completed MATH 545 on quarters and wants to complete the MATH 5474, then the topic for the directed study course should be content of MATH 5474. It is student has completed MATH 545 on quarters and wants to complete the MATH 5474, then the topic for the directed study course should be content of MATH 5474. It is student has completed MATH 5450 and can another the MATH 5474, then the topic for the directed study course should be content of MATH 5475. The student has make the make the student has make the make the student has been should be substituted for MATH 5455. See sepans packersenist substitute for MATH 577, then the student may not use MATH 5455 to count as a semistar elective content of MATH 5474. The student has make the student has want to complete the MATH 5475 to count as a semistar election content for MATH 5474. The student has make the student has want to complete the MATH 5475 to count as a semistar election content for MATH 5475. The student has want to complete the MATH 5475 to count as a semistar elect
Concentration in Economics (MAEC Jover Obvious Requirements Upper Division Requirements  Electives  Concentration in Geographic Infontuver Obvious Requirements Upper Division Requirements Upper Division Requirements Upper Division Requirements Upper Division Requirements	Solten units of mathematics electrons selected from the following that have right units industrial from the following that have right units indused from 500 kms colored from 500	CRE 500 CRE 501 CRE 511 CRE 51	COS 1909 COS	MASH 4560 or MASH 5600	SE 4000  MACTY 4005  MACTY 400	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 3 4 4 4 4 4 5 5 5 5 5 5 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8	If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should sale MATH 4600 as a substitute for MATH 545. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545. See sequence on semesters, then the student can be MATH 545. See sequence on semesters, then the student raw years and wants to complete the MATH 545. See sequence on semesters, then the student raw years are MATH 545 to count as a semester elective expension to MATH 545. See good replacement substitute for MATH 570, then the student may not use MATH 5455 to count as a semester elective expension to MATH 545. See good replacement substitute for MATH 570, then the student may not use MATH 5455 to count as a semester elective expension to MATH 545.  If a student has completed MATH 545 on quarters and wants to complete the MATH 5474, then the topic for the directed study course should be connected to the content of MATH 545. The student has completed MATH 545 on quarters and wants to complete the MATH 5474, then the topic for the directed study course should be content of MATH 5474. It is student has completed MATH 545 on quarters and wants to complete the MATH 5474, then the topic for the directed study course should be content of MATH 5474. It is student has completed MATH 5450 and can another the MATH 5474, then the topic for the directed study course should be content of MATH 5475. The student has make the make the student has make the make the student has been should be substituted for MATH 5455. See sepans packersenist substitute for MATH 577, then the student may not use MATH 5455 to count as a semistar elective content of MATH 5474. The student has make the student has want to complete the MATH 5475 to count as a semistar election content for MATH 5474. The student has make the student has want to complete the MATH 5475 to count as a semistar election content for MATH 5475. The student has want to complete the MATH 5475 to count as a semistar elect
Concentration in Economics (MAE Lower Division Requirements Upper Division Requirements  Electives  Concentration in Geographic Infon Lower Division Requirements  Opper Division Requirements  Specific Section Sequirements  Specific Section Sequirements  Dipper Division Requirements  Electives	Solten units of mathematics electrons selected from the following that have right units industrial from the following that have right units indused from 500 kms colourses.  Required courses  Solten units chosen from  Four units chosen from  Tour units chosen from  Advanced from the following that is to be chosen from  Tour units of the following that is to be chosen from  Tour units of the following that is to be chosen from  Tour units of the following that is to be chosen from	GR 500 GR 501 GR 502 GR 502 GR 502 GR 502 GR 502 GR 503 GR	COS 1909 COS	MASH 4560 or MASH 5600	SE 4000  MACTY 4005  MACTY 400	26 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should sale MATH 4600 as a substitute for MATH 545. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545. See sequence on semesters, then the student can be MATH 545. See sequence on semesters, then the student raw years and wants to complete the MATH 545. See sequence on semesters, then the student raw years are MATH 545 to count as a semester elective expension to MATH 545. See good replacement substitute for MATH 570, then the student may not use MATH 5455 to count as a semester elective expension to MATH 545. See good replacement substitute for MATH 570, then the student may not use MATH 5455 to count as a semester elective expension to MATH 545.  If a student has completed MATH 545 on quarters and wants to complete the MATH 5474, then the topic for the directed study course should be connected to the content of MATH 545. The student has completed MATH 545 on quarters and wants to complete the MATH 5474, then the topic for the directed study course should be content of MATH 5474. It is student has completed MATH 545 on quarters and wants to complete the MATH 5474, then the topic for the directed study course should be content of MATH 5474. It is student has completed MATH 5450 and can another the MATH 5474, then the topic for the directed study course should be content of MATH 5475. The student has make the make the student has make the make the student has been should be substituted for MATH 5455. See sepans packersenist substitute for MATH 577, then the student may not use MATH 5455 to count as a semistar elective content of MATH 5474. The student has make the student has want to complete the MATH 5475 to count as a semistar election content for MATH 5474. The student has make the student has want to complete the MATH 5475 to count as a semistar election content for MATH 5475. The student has want to complete the MATH 5475 to count as a semistar elect
Concentration in Economics (MAE) Lower Division Requirements Upper Division Requirements  Blectives  Concentration in Geographic Infon Lower Division Requirements  Upper Division Requirements  Concentration in Requirements  Concentration in Physics (MAPC)	Content units of mathematics electrics selected from the following with a fear eight certificate from the following with a fear eight certificate from 500 level courses.  Integrated courses  Integrated courses  Content units chosen from  Integrated courses  As least eight with it be chosen from the courses  As least eight with it be chosen from the courses  Tour units chosen from	CRE 500 CRE 501 CRE 511 CRE 51	COS 1909 COS	MASH 4560 or MASH 5600	SE 4000  MACTY 4005  MACTY 400	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22-23 3 3 3 3 3 3 3 3 3 4 4 4 4 4 5 5 5 5 5 5 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8	If a student has completed MATH 445 or quarters and wants to complete the MATH 446 elective on semisters. Then the student should talk MATH 4400 is a substitute for MATH 445 in complete the MATH 445 or quarters and wants to complete the MATH 445 is complete the MATH 445 or quarters and wants to complete the MATH 445 is complete the MATH 445 or quarters and wants to complete the MATH 445 is complete the MATH 445 to count as a semester elective equation to MATH 445 as good replacement substitute for MATH 570, then the student many not use MATH 4455 to count as a semester elective equation to MATH 445 as good replacement substitute for MATH 570, then the student many not use MATH 4455 to count as a semester elective equation to MATH 445 as good replacement substitute for MATH 570, then the student many not use MATH 4455 to count as a semester elective equation to MATH 445 as good replacement substitute for MATH 474, then the topic for the directed study course should be connected to the comment of MATH 445 as good replacement substitute for MATH 474, then the topic for the directed study course should be connected to the comment of MATH 445 as good replacement substitute for MATH 475, then the topic for the directed study course should be connected to the comment of MATH 445 as good replacement substitute for MATH 470. Then the student many not use MATH 4455 to count as a semester elective many student and math 4400 to MATH 445 as good replacement substitute for MATH 470, then the student many not use MATH 4455 to count as a semester elective many student and math 4450 to count as a semester election connected to the content of MATH 445 as good replacement substitute for MATH 470, then the topic for the directed study course should be connected to the content of MATH 445 as good replacement substitute for MATH 470, then the topic for the directed study course should be connected to the content of MATH 445 as good replacement substitute for MATH 470, then the topic for the directed study course should be connected

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Upper Division Requirement	Required course	PHYS 373	PHYS 3100			4	4		
		PHYS 306	PHYS 3200						
		PHYS 307							
		PHYS 313	PHYS 3400						
		PHYS 314	PHYS 4400						
		PHYS 315	PHYS 5400						
		PHYS 324	PHYS 3500						
		PHYS 370	ASTR 3300						
		PHYS 421	PHYS 4700						
	Twelve units chosen from	PHYS 422	PHYS 5700			12	6-12	PHYS 307, PHYS 461, PHYS 463, PHYS 480A, PHYS 480B, and PHYS 573 have been deleted. Consultation with the PHYS department is recommended for any	
	THEIRE GITTS CHOSEN THOM	PHYS 430	PHYS 4800					issues related to repeating these courses for grade forgiveness.	
		PHYS 450	PHYS 5500						
		PHYS 461							
		PHYS 463							
		PHYS 473	PHYS 5100						
		PHYS 480A							
		PHYS 4808							
		PHYS 485A	PHYS 4851						
Electives		PHYS 573							
		MATH 320	MATH 3320					If a student uses MATH 3953 (directed study) as a grade replacement substitute for MATH 474, then the topic for the directed study course should be	
		MATH 455	MATH 4455						
		MATH 470	MATH 4270						
		MATH 474			MATH 3953	1			
		MATH 480	MATH 3480					connected to the content of MATH 474.	
		MATH 485	MATH 4485						
	Twelve units of mathematics	MATH 510	MATH 5510						
	electives selected from the	MATH 529	MATH 5529						
	following with at least one four	MATH 531	MATH 5310			12	9-10		
	unit course chosen from 500-leve	MATH 546		MATH 4600 or MATH 5600				If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should take MATH 4600	
	unit course chosen from 500-level	MATH 554	MATH 5300					a substitute for MATH 545. If a student has not completed MATH 545 on quarters and wants to complete the MATH 545-546 sequence on semesters, the	
		MATH 555	MATH 5550					the student can substitute MATH 4600 for MATH 545 and can substitute MATH 5600 for MATH 546.	
		MATH 557	MATH 5170						
		MATH 56S	MATH 5565						
		MATH 570			MATH 4455			If a student is uses MATH 4455 as grade replacement substitute for MATH 570, then the student may not use MATH 4455 to count as a semester elective	
		MATH 576			MATH 4360			equivalent for MATH 455.	
		MATH 595D	MATH 5593						
					Total	49	32-39		

# B.A. in Mathematics - Teaching Track -- Quarter to Semester Translation Table Quarter Requirements (AY 2017-18)

	Quarter requirements (A7 2017-16)							
			Semester Course Equivalencies (Course is the same as the quarter course. This can be \$1.1; 1.mman; many;1. or many;many program) which the quarter courses as required or fasted, course was required to the course and the course was required to the course the course of the course was required to the course the course of the course was required to the course the course of the course was required to the course the course of the course was required to the course the course of the course of the course the course of the course of the course the course of the course of the course the course of	Acceptable Semester Course Substitutions [Course is NOT the same as [Course is NOT the same as acceptable for this particular program requirement area for all students. This information WILL NOT be displayed in the course for electrical or the course conflicted on the PAWS as a choice for the student. Repeat rules DO NOT apply.)	Acceptable Semester Course Repeats If there is an ensester course equivalency, this is the grade forgiveness fy add discounting.)	Quarter Units (current number of units which are required for each requirement area.)	Semester Units (Number of semester units which will be required for each requirement area.)	Notes
MATT								
		MATH 211, 212, and 213 (each 4 units, quarters)	MATH 2210 and 2220 (each 4 units, semesters)			12	8	If a student has completed only MATH 211 on quarters, then the student should complete MATH 2120Q25 and MATH 2220. If a student has completed MATH 2121 and MATH 2121 and MATH 2121 on quarters, then the student should state MATH 212QQ55 to complete the sequence. If a student only complete MATH 2210, then the student will only earn credit for MATH 211.
		MATH 241		CSE 1100 or CSE 1250	·	2	3	
Lower Division Requirements	Required courses	MATH 199 (3 units, quarters) and MATH 299 (4 units, quarters)	MATH 2900 (4 units, semesters)			7	4	If a student has only completed MATH 199 on quarters, then the student will need to take MATH 2900 to complete the sequence. If a student has only completed MATH 299 on quarters, then the student should take MATH 1990QSS.
		4 units, quarters)	MATH 2310 and 2320 (each 4 units, semesters)			12	8	If a student has completed only MATH 325 on quarters, then the student should complete MATH 33100Q35 and MATH 2320. If a student has completed MATH 2310 and MATH 232 on quarters, then the student should complete MATH 33100Q35 to complete the sequence. If a student has completed MATH 331 and MATH 331 on quarters, then the student should complete MATH 23200 to complete MATH 33100Q35 to complete the sequence.
		MATH 329	MATH 3329			4	3	
		MATH 345	MATH 3345			4	3	
		MATH 355 MATH 372	MATH 3372	MATH 3100		4	4 3	
		MATH 372 MATH 465	MATH 3372 MATH 3460			4	3	
		MATH 480	MATH 3460 MATH 3480			4	3	
Upper Division Requirements	Required courses		MATH 4900 (4 units, semesters)			6	4	If a student has completed only MATH 399 on quarters, then the student will need to take MATH 4900 to complete the sequence.
		MATH 499 (4 units, quarters)		· ·	·			The above in the Complete Strip man 122 on quarter, then the above in mind to take MATH 4900 to complete the Sequence.
		MATH 529	MATH 5529			4	3	
		MATH 545		MATH 4600		4	4	
		MATH 553 MATH 565	MATH 4300			4	4	
		MATH 565 MATH 599	MATH 5565 MATH 5900			4	- 3	
		MATH 220				2	,	
		MATH 270	MATH 2270			2	3	
			MATH 2270 MATH 3320			2	3	
		MATH 320	MATH 2270			2	3	
		MATH 320 MATH 455 MATH 470 MATH 474	MATH 2270 MATH 3320 MATH 4455		MATH 3953	2	3	If a student uses MATH 965 (directed study) as a grode replacement subdishate for MATH 424, then the topic for the directed study course should be
	Eight units chosen from the	MATH 455 MATH 470 MATH 474 MATH 474 MATH 485	MATH 2270 MATH 3320 MATH 4455		MATH 3953	2	3	If a student was MATH 3953 (directed study) as a grade replacement substitute for MATH 474, then the topic for the directed study course should be connected to the Accessor of MATH 474.
	following in consultation with an	MATH 320 MATH 455 MATH 470 MATH 474 MATH 474 MATH 485 MATH 510	MATH 2270 MATH 3320 MATH 4455 MATH 4470 MATH 4485 MATH 5510		MATH 3953	2		
Electives	following in consultation with an advisor with at least 4 units	MATH 320 MATH 455 MATH 470 MATH 474 MATH 485 MATH 510 MATH 531	MATH 2270 MATH 3320 MATH 4455 MATH 4270 MATH 4485		MATH 3953	8	6-7	connected to the content of MATH 474.
Electives	following in consultation with an advisor with at least 4 units chosen at the 400-level and	MATH 320 MATH 455 MATH 470 MATH 474 MATH 474 MATH 474 MATH 510 MATH 510 MATH 531	MATH 2270 MATH 3330 MATH 3455 MATH 4270 MATH 4485 MATH 4485 MATH 5510 MATH 5510	MATH 4600 or MATH 5600	MATH 3953	8	6-7	connected to the content of MATH 474.  If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should take MATH 4600 as a
Electives	following in consultation with an advisor with at least 4 units	MATH 420 MATH 420 MATH 420 MATH 420 MATH 427 MATH 427 MATH 427 MATH 428 MATH 510 MATH 510 MATH 546 MATH 531 MATH 546	MATH 2270 MATH 3320 MATH 4355 MATH 4455 MATH 4485 MATH 4485 MATH 5510 MATH 5310 MATH 5300	MATH 4600 or MATH 5600	MATH 3953	8	6-7	connected to the content of MATH 474.  If a student has completed MATH 456 on qualifiers and wants to complete the MATH 546 election on senseters, then the student should take MATH 4600 as a validation of MATH 4600 or a senseter of MATH 4600 or a validation of MATH 4600 or a v
Electives	following in consultation with an advisor with at least 4 units chosen at the 400-level and	MATH 4320 MATH 455 MATH 470 MATH 474 MATH 474 MATH 485 MATH 510 MATH 510 MATH 546 MATH 554 MATH 555	MATH 2270 MATH 4250 MATH 4455 MATH 4270 MATH 4485 MATH 4485 MATH 5310 MATH 5310 MATH 5300 MATH 5300	MATH 4500 or MATH 5600	MATH 3953	2	6-7	connected to the content of MATH 474.  If a student has completed MATH 545 on quarters and wants to complete the MATH 546 elective on semesters, then the student should take MATH 4600 as a
Electives	following in consultation with an advisor with at least 4 units chosen at the 400-level and	MARTH 320 MARTH 425 MARTH 470 MARTH 470 MARTH 474 MARTH 510 MARTH 510 MARTH 561 MARTH 561 MARTH 561 MARTH 555 MARTH 555	MATH 2270 MATH 3320 MATH 4355 MATH 4455 MATH 4485 MATH 4485 MATH 5510 MATH 5310 MATH 5300	MATH 4600 or MATH 5600		8	6-7	connected to the content of MATH 1450 are quarters and exacts to complete the MATH 545 election on senseture, then the student should table MATH 14600 are a 18 andered to MATH 1450 are a subsetulated to MATH 1450 are quarters and wants to complete the MATH 1450 are a substitute for MATH 1450 are a subsetulated MATH 1450 and can substitute MATH 1560 for MATH 1450.
Electives	following in consultation with an advisor with at least 4 units chosen at the 400-level and	MATH 4320 MATH 455 MATH 470 MATH 474 MATH 474 MATH 485 MATH 510 MATH 510 MATH 546 MATH 554 MATH 555	MATH 2270 MATH 4250 MATH 4455 MATH 4270 MATH 4485 MATH 4485 MATH 5310 MATH 5310 MATH 5300 MATH 5300	MATH 4600 or MATH 5600	MATH 3953  MATH 4855  MATH 4850	8	6-7	connected to the content of MATH 474.  If a student has completed MATH 456 on quarters and wants to complete the MATH 546 election on senseters, then the student should take MATH 46600 as a production for MATH 547. If a student has not completed MATH 456 on quarters and wants to complete the MATH 456.5 sequence on senseters, then the

# Mathematics Minor -- Quarter to Semester Translation Table Quarter Requirements (AY 2017-18)

Quarter requirements (AY ZUI/-18)									
MATH-MIN			quarter course. This can be 1:1; 1:manry; many:1; or many:many courses. Anywhere (for any program) which the quarter course was required or listed, this (these) semester course(s) can be used. This information		Acceptable Semester Course Repeats If there is an semester course equivalency, this is the alternative course to allow for good for givenessity and alternatives.	Quarter Units (Current number of units which are required for each	Semester Units (Number of semester units which will be required for each requirement area.)	Notes	
main min	A minimum of two units chosen	CSE 201 MATH 241	CSE 2010			2	3-4		
Lower Division Requirements	Required courses		MATH 2210 and 2220 (each 4 units, semesters)	CSE 1100 or CSE 1250		12	8	If a student has completed only MATH 211 on quarters, then the student should complete MATH 2120025 and MATH 2220. If a student has completed MATH 211 and MATH 2120 or quarters, then the student should take MATH 21100225 to complete the sequence. If a student only complete MATH 211 and MATH 2120 or quarters, then the student of the MATH 21100225 to complete the sequence. If a student only complete MATH 212 or quarters, then the student will only year overfile for MATH 211.	
	Required courses	MATH 251		MATH 2310		4	4		
		MATH 252		MATH 2320		4	4		
	Required course	MATH 331		MATH 3320-5953 (3 units)		4		Any upper division mathematics course (ranging from 3320 to 5953) applicable to the math major with the exception of MATH 2900, MATH 4900, and MATH 5900, selected in consultation with a math faculty advisor.	
Upper Division Requirements	Four units chosen from	MATH 345 MATH 355		MATH 3100		4	4		
	Four units chosen from upper- division elective course work in mathematics courses applicable to the major	MATH 300-599	MATH 3320-5953			4		Any upper division mathematics course (ranging from 3320 to 5953) applicable to the math major with the exception of MATH 2900, MATH 4900, and MATH 5900, selected in consultation with a math faculty advisor.	
					Total	34	29 to 32		

### Applied Mathematics Minor-- Quarter to Semester Translation Table

Quarter Requirements (AY 2017-18)									
		Quarter Courses	I:many; many:1; or many:many courses. Anywhere (for any program) which the quarter course was required or listed, this (these) semester course(s)		equivalency, this is the alternative course to allow for grade forgiveness/grade	Quarter Units (Current number of units which are required for each requirement area.)	Semester Units (Number of semester units which will be required for each requirement area.)	Notes	
APMA-MIN  Minor Requirements	Required courses	MATH 211, 212, and 213 (each 4 units, quarters)	MATH 2210 and 2220 (each 4 units, semesters)	CSE 1100 or CSE 1250		12	8	If a student has completed only MATH 221 on quarters, then the student should complete MATH 2210Q25 and MATH 2220. If a student has complete MATH 211 and MATH 2220, if a student has complete MATH 211 and MATH 222 on quarters, then the student should take MATH 2120Q25 to complete the sequence. If a student only completes MATH 2220, then the student will only earn credit for MATH 211.	
		MATH 251 MATH 252		MATH 2310 MATH 2320		4	4		
Choose One of the Following Groups	Group B Group C Group D Group E	MATH 270 MATH 355 MATH 470 MATH 470 MATH 470 MATH 470 MATH 470 CSE 201 MATH 470 CSE 201 MATH 331 MATH 474 MATH 372	MATH 2270  MATH 4270  MATH 4270  MATH 4270  MATH 4270  MATH 3270  MATH 3372  MATH 3860  MATH 3860  MATH 3860  MATH 3874  MATH 3860	MATH 3300  MATH 3300  MATH 3300  MATH 3320  MATH 3320  MATH 3230  MATH 2205 or MATH 3220 or PHYS 5100  MATH 2205 or MATH 3320		12-16		The semester prorequisite to MATH 5565 is MATH 2265, which is not a requirement for the minor in applied machinestics. Students should consult with faculty prior to registering for MATH 5565.	

### Actuarial Science Certificate -- Quarter to Semester Translation Table Quarter Requirements (AY 2017-18)

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			Semester Course Equivalencies (Course is the same as the quarter course. This can be 1:1; Jamany; many; Lor manymany; Lor manymany; Lor manymany program) which the quarter course skeywhere (for any program) which the quarter course was required or listed, this (thesa) semester course(s) will also be displayed in the course conversion guide. Repeat rules apply.)	information WILL NOT be displayed in the course conversion guide, but will be reflected on the PAWS as a	equivalency, this is the alternative course to allow for grade forgiveness/grade	(Current number of units which are required for each	Semester Units (Number of semester units which will be required for each requirement area.)	Notes
Actuarial Science								
			ECON 2201			4	3	
			ECON 2202			4	3	If a student has completed only MATH 211 on quarters, then the student should complete MATH 2120025 and MATH 2220. If a student has
	Lower- division required courses		MATH 2210 and 2220 (each 4 units, semesters)			12	8	It a student has completed only MATH 211 on quarters, then the student should complete MATH 2100QS and MATH 220.0. It a student has completed MATH 211 and MATH 212 on quarters, then the student hould take MATH 2110QS to complete the sequence. If a student onl completes MATH 2220, then the student will only earn credit for MATH 211.
		MATH 241		CSE 1100 or CSE 1250		2	3.4	
Certificate Requirements			MATH 2210			4	4	