Name:			PURE MATH COURSEWORK						
SID #:			MATH Bachelor of Science (Fall 2017 catalog to current)						
BREADTH REQUIREMENTS (180 units minimum to graduate, 216 max)			MATH Core Requirement Lower-Div Entire major GPA must completed with at least a 2.00 GPA			MATH PURE MATHEMATICS Upper-Division Coursework (52 units)			
Common Breadth Courses			Course Of	<u>ferings</u>		Course Offer	<u>ings</u>		
English (12 units) - Grade of "C" or better is	s require	ed	Course Name	Units	Completed	36 units of upper-div t	o includ	le at	
Course Name	Units	Completed	MATH009A	4		least 24 units from the	e followi	ing:	
ENGL001A	4		MATH009B	4		Course Name	Units	Grade	
ENGL001B	4		MATH009C	4		MATH131	4		
ENGL001C	4		MATH031	5		MATH132	4		
HUMANITIES (12 units minimum	/		<u>CS010</u>	4		MATH145A	4		
One (1) course from: World History 10, 1	5, or 20		MATH010A	4		MATH145B	4		
			MATH010B	4		MATH151A	4		
One (1) course in: fine arts, literature, philosophy, o	r religio	us studies	MATH046	4		MATH151B	4		
			CS011 is reco	mmend	ed	MATH151C	4		
One (1) additional humanities course		Year of Science			MATH171	4			
			BIOL005, CHEM001,	or PHY	S040 Series	MATH172	4		
SOCIAL SCIENCES (12 units minim	um)					At least 3 courses from a	bove m	ust be:	
One (1) course in: economics, political s	cience					MATH145A			
						MATH145B			
One (1) course in: anthropology, psychology	, sociolo	ogy	Please refer to prerequ	isite rec	quirements	MATH151A			
			for all MATH			MATH151B			
One (1) additional social sciences cou	ırse	•				MATH151C			
			Please note: MATH144 is a prerequsite		16 additional upper-div				
ETHNIC STUDIES (4 units minimu	.m)		requirement for M	-	-		4		
May count towards addt'l humanities or addt'l social scie		t not both	MATH150A (also requ				4		
			MATH010B with C				4		
BIOLOGICAL SCIENCES (4 units min	imum)		accordir				4		
			Refer to your universit	<u> </u>	og year and				
MATHEMATICS (4 units minimur	n)		degree audit for specific	-					
			all major requ		U U				
PHYSICAL SCIENCE ( 4 units minim	um)					pemic Ady			
				UNIVE	RSITY OF CALIF	ORNIA deuro			
Two additional 4-unit courses from life sciences or	physica	l science		7 I V	ERSI		99 97		
					LNJI		\$°		
						. KÛ 104			

Name:			GENERAL APPLIED MATH COURSEWORK MATH Bachelor of Science (Fall 2017 catalog to current)					
SID #:			MATH Core Requirement Lower-Div					
BREADTH REQUIREMENTS (180 units minimum to graduate, 216 max)			Entire major GPA i with at least a	must co	mpleted	MATH General Applied Concentration Upper-Division Coursework		
Common Breadth Courses			Course Of	<u>ferings</u>		Course Offerin	<u>1gs</u>	
English (12 units) - Grade of "C" or better is	s require	ed	Course Name	Units	Completed	The following must be ta	ken fro	m the
Course Name	Units	Completed	MATH009A	4		MATH General Core Co	oncentr	ation
ENGL001A	4		MATH009B	4		Course Name	Units	Grade
ENGL001B	4		MATH009C	4		MATH131	4	
ENGL001C	4		MATH031	5		MATH135A&B or 149A&B	8	
HUMANITIES (12 units minimum	1)		<u>CS010</u>	4		MATH146A	4	
One (1) course from: World History 10, 1	5, or 20		MATH010A	4		MATH146B	4	
			MATH010B	4		MATH146C	4	
One (1) course in: fine arts, literature, philosophy, o	r religio	us studies	MATH046	4		General MATH Option Area mus		
			CS011 is recommended			take the following:		
One (1) additional humanities cours	se		Year of Science			MATH150A or MATH151A	4	
			BIOL005, CHEM001,		S040 Series	MATH168	4	
SOCIAL SCIENCES (12 units minim	um)					16 units from the fol	lowing	:
One (1) course in: economics, political s						MATH120	4	
						MATH121	4	
One (1) course in: anthropology, psychology	sociol	ogv	Please refer to prerequ	isite rec	nuirements	MATH126	4	
	,	-8)	for all MATH courses.		MATH141	4		
One (1) additional social sciences cou	ırse					MATH149A	4	
			Please note: MATH14	44 is a r	oreregusite	MATH149B	4	
ETHNIC STUDIES (4 units minimu	m)		requirement for M.	-	-	MATH151B	4	
May count towards addt'l humanities or addt'l social scie	<i>,</i>	t not both	MATH150A (also requ			MATH165A	4	
			MATH010B with C-			MATH165B	4	
BIOLOGICAL SCIENCES (4 units min	imum)	ļ	accordin		,	Please review course offeri	-	COUITSE
			Refer to your universit		og vear and	availability and appropr	U	
MATHEMATICS (4 units minimur	n)		degree audit for specific	•		planning.		
			all major requ		U	Piulining.		
PHYSICAL SCIENCE ( 4 units minin	1 111m)			in chirch		do A y		
				UNIVE	RSITY OF CALIF	ORNIA demic Adu.		
Two additional 4-unit courses from life sciences or	nhysica	1 science		311/	EDCII		9	
Two additional 4-diff courses from the selences of			UUU		ERSITY OF CALIF		2	

Name:			MATH APPLIED BIOL COURSEWORK					
SID #:			MATH Bachelor of Science (Fall 2017 catalog to current)					
<b>BREADTH REQUIREMENTS</b> (180 units minimum to graduate, 216 max)			MATH Core Requirement Lower-Div Entire major GPA must completed with at least a 2.00 GPA			MATH BIOL Option Concentration Upper-Division Coursework		
Common Breadth Courses			Course Of	<u>ferings</u>		Course Offerin	<u>1gs</u>	
English (12 units) - Grade of "C" or better is	s require	d	Course Name	Units	Completed	The following must be ta	ken from t	the
Course Name	Units	Completed	MATH009A	4		MATH BIOL Core Co	ncentration	n
ENGL001A	4		MATH009B	4		Course Name	Units G	rade
ENGL001B	4		MATH009C	4		MATH131	4	
ENGL001C	4		MATH031	5		MATH135A&B or 149A&B	8	
HUMANITIES (12 units minimum	<i>,</i>		<u>CS010</u>	4		MATH146A	4	
One (1) course from: World History 10, 1	5, or 20		MATH010A	4		MATH146B	4	
			MATH010B	4		MATH146C	4	
One (1) course in: fine arts, literature, philosophy, o	r religio	us studies	MATH046	4		BIOL Option Area		
			CS011 is recommended			take the followi	ng:	
One (1) additional humanities cours	se					MATH149A	4	
						2 courses from the fo	llowing:	
SOCIAL SCIENCES (12 units minim	um)		BIOL005A/05LA	5		MATH120	4	
One (1) course in: economics, political s	cience		BIOL005B	4		MATH121	4	
			BIOL005C	4		MATH135A	4	
One (1) course in: anthropology, psychology	, sociolc	gy	Please refer to prerequ	isite rea	quirements	MATH135B	4	
						MATH149B	4	
One (1) additional social sciences cou	ırse		BIOL Upper-Division, must					e:
			Please note: MATH144 is a prerequsite			BIOL102	4	
ETHNIC STUDIES (4 units minimu	m)		requirement for M			BIOL105	4	
May count towards addt'l humanities or addt'l social scie	ences, bu	t not both	MATH150A (also requ			BIOL108	4	
			MATH010B with C- or	,		4 additional units of upper-	division B	SIOL
BIOLOGICAL SCIENCES (4 units min	imum)		upper-div BIOL preqs.	Plan a	ccordingly.		4	
			Refer to your universit	ty catalo	og year and	Please review course offer	ngs for co	urse
MATHEMATICS (4 units minimum)		degree audit for specific	c course	listings and	availability, prerequisites, a	nd approp	oriate	
			all major requ	uiremen	ts.	course plannir	ıg.	
PHYSICAL SCIENCE ( 4 units minimum)						demic Ada.		
				UNIVE	RSITY OF CALIF	ORNIA STELLAR		
Two additional 4-unit courses from life sciences or	physica	l science		ZIV	FRCI		a <b>&gt;</b>	
			UCRIVERSIDE					

Name:			MATH APPLIED CHEM COURSEWORK					
SID #:			MATH Bachelor of Science (Fall 2017 catalog to current)					
BREADTH REQUIREMENTS (180 units minimum to graduate, 216 max)			MATH Core Requirement Lower-Div Entire major GPA must completed with at least a 2.00 GPA			MATH CHEM Option Concentration Upper-Division Coursework		
Common Breadth Courses			Course Of	<u>ferings</u>		Course Offerin	<u>igs</u>	
English (12 units) - Grade of "C" or better is	require	d	Course Name	Units	Completed	The following must be ta	ken fro	m the
Course Name	Units	Completed	MATH009A	4		MATH CHEM Core Co	ncentra	ation
ENGL001A	4		MATH009B	4		Course Name	Units	Grade
ENGL001B	4		MATH009C	4		MATH131	4	
ENGL001C	4		MATH031	5		MATH135A&B or 149A&B	8	
HUMANITIES (12 units minimum	)		<u>CS010</u>	4		MATH146A	4	
One (1) course from: World History 10, 1	5, or 20		MATH010A	4		MATH146B	4	
			MATH010B	4		MATH146C	4	
One (1) course in: fine arts, literature, philosophy, o	r religio	us studies	MATH046	4		CHEM Option Are	a must	
			CS011 is recommended			take 3 from the following:		
One (1) additional humanities course		Science Sequences for applied CHEM		MATH120	4			
			Science Sequences io	r applie	CHEM	MATH135A	4	
SOCIAL SCIENCES (12 units minim	um)		CHEM001A/01LA	5		MATH135B	4	
One (1) course in: economics, political s	cience		CHEM001B/01LB	5		MATH149A	4	
			CHEM001C/01LC	5		MATH149B	4	
One (1) course in: anthropology, psychology	sociolo	gy	PHYS040A	5		MATH165A	4	
			PHYS040B	5		MATH165B	4	
One (1) additional social sciences cou	rse		PHYS040C	5		CHEM Upper-Division	, must	take:
			Please note: MATH14	44 is a p	orerequsite	CHEM110A	4	
ETHNIC STUDIES (4 units minimu	m)	-	requirement for M			CHEM110B	4	
May count towards addt'l humanities or addt'l social scie		t not both	MATH150A (also requires MATH009C &		CHEM111	4		
			MATH010B with C- or	better).	Also review	CHEM113	4	
BIOLOGICAL SCIENCES (4 units min	imum)		upper-div CHEM preqs	. Plan a	accordingly.	Additional 4 units of uppe	er-div C	HEM
			Refer to your universit	y catalo	og year and		4	
MATHEMATICS (4 units minimur	n)		degree audit for specific	•	0.	Please review course offeri	ngs for	course
		all major requ			availability, prerequisites, a	nd app	ropriate	
PHYSICAL SCIENCE ( 4 units minimum)		Be aware potential tim			course plannin			
			CHEM110 and M			pernic Aq.		
Two additional 4-unit courses from life sciences or	physica	l science		RS		A State of the sta		

Name:			MATH APPLIED ECON COURSEWORK MATH Bachelor of Science (Fall 2017 catalog to current)					
SID #: BREADTH REQUIREMENTS (180 units minimum to graduate, 216 max)			MATH Bachelof of Science (F MATH Core Requirement Lower-Div Entire major GPA must completed with at least a 2.00 GPA			MATH ECON Option Concentration Upper-Division Coursework		
Common Breadth Courses			Course Of	ferings		Course Offerin	<u>1gs</u>	
English (12 units) - Grade of "C" or better is	s require	d	Course Name	Units	Completed	The following must be ta	ken fro	m the
Course Name	Units	Completed	MATH009A	4		MATH ECON Core Co		
ENGL001A	4		MATH009B	4		Course Name	Units	Grade
ENGL001B	4		MATH009C	4		MATH131	4	
ENGL001C	4		MATH031	5		MATH135A&B or 149A&B	8	
HUMANITIES (12 units minimum	,		<u>CS010</u>	4		MATH146A	4	
One (1) course from: World History 10, 1	5, or 20		MATH010A	4		MATH146B	4	
			MATH010B	4		MATH146C	4	
One (1) course in: fine arts, literature, philosophy, o	r religio	us studies	MATH046	4		ECON Option Are	a must	
			CS011 is recommended take the follo				ng:	
One (1) additional humanities cours	se	•	Year of Se	MATH120	4			
			BIOL005, CHEM001,	or PHY	S040 Series	MATH121	4	
SOCIAL SCIENCES (12 units minim	um)					MATH149A	4	
One (1) course in: economics, political s	cience					MATH149B	4	
						ECON 4 Upper-Div (at 1	east 20	units)
One (1) course in: anthropology, psychology	, sociolo	gy	Please refer to prerequ	isite red	quirements	ECON	5	
			for all MATH courses.			ECON	5	
One (1) additional social sciences cou	ırse					ECON	5	
			Please note: MATH144 is a prerequsite		ECON	5		
ETHNIC STUDIES (4 units minimu	.m)		requirement for MATH145A and			Please review course offer	rings for	r other
May count towards addt'l humanities or addt'l social scie		t not both	MATH150A (also requ			ECON course availability		
			MATH010B with C-			and appropriate course		· · · · · · · · · · · · · · · · · · ·
BIOLOGICAL SCIENCES (4 units min	imum)	ļ	accordir		,			
			Refer to your universit		og vear and	In lieu of ECON102A, 10		
MATHEMATICS (4 units minimum)		degree audit for specific	•	0.	103B choices, either EC			
			all major requ		•	ECON104A may b	e taken	
PHYSICAL SCIENCE ( 4 units minim	num)						4 5	
			U	NIVER	RSITY OF	CALIFORNIA demic	Advie.	
Two additional 4-unit courses from life sciences or	physica	1 science	UCR	V	ERS	SIDE 🐉	19110	
						0		

Name:			MATH APPLIED ENSC COURSEWORK						
SID #:			MATH Bachelor of Science (Fall 2017 catalog to current)						
BREADTH REQUIREMENTS (180 units minimum to graduate, 216 max)			MATH Core Requirement Lower-Div Entire major GPA must completed with at least a 2.00 GPA			MATH ENSC Option Concentration Upper-Division Coursework			
Common Breadth Courses			Course Of	<u>ferings</u>		Course Offerin	<u>1gs</u>		
English (12 units) - Grade of "C" or better is	s require	d	Course Name	Units	Completed	The following must be ta	ken from	the	
Course Name	Units	Completed	MATH009A	4		MATH ENSC Core Co	ncentratio	on	
ENGL001A	4		MATH009B	4		Course Name	Units G	rade	
ENGL001B	4		MATH009C	4		MATH131	4		
ENGL001C	4		MATH031	5		MATH135A&B or 149A&B	8		
HUMANITIES (12 units minimum	<i>′</i>		<u>CS010</u>	4		MATH146A	4		
One (1) course from: World History 10, 1	<mark>5, or 20</mark>	-	MATH010A	4		MATH146B	4		
			MATH010B	4		MATH146C	4		
One (1) course in: fine arts, literature, philosophy, o	<mark>r religio</mark>	us studies	MATH046	4		ENSC MATH Upper-D	ivision m	ust	
			CS011 is recommended take the follo				owing:		
One (1) additional humanities cours	se		Science Sequences for applied ENSC			MATH149A	4		
			Science Sequences in	or applie	ed ENSC	ENSC MATH Upper-D	ivision m	ust	
SOCIAL SCIENCES (12 units minim	um)	-	CHEM001A/01LA	5		take 2 of the following:			
One (1) course in: economics, political s	cience		CHEM001B/01LB	5		MATH120	4		
			CHEM001C/01LC	5		MATH121	4		
One (1) course in: anthropology, psychology	, sociolc	gy	Additional Lower	-Div Sc	eiences	MATH135A	4		
			ENSC006/ECON006	4		MATH135B	4		
One (1) additional social sciences cou	ırse		GEO001 (recommended)	4		MATH149B	4		
			Please note: MATH14	44 is a p	orerequsite	CS177	4		
ETHNIC STUDIES (4 units minimu	.m)		requirement for M	ATH14	5A and	STAT155	4		
May count towards addt'l humanities or addt'l social scie	ences, bu	t not both	MATH150A (also requ	ires MA	ATH009C &				
			MATH010B with C- or	better).	Also review	ENSC100/SWSC100	4		
BIOLOGICAL SCIENCES (4 units min	imum)	,	upper-div ENSC preqs.	. Plan a	ccordingly.	ENSC101	4		
			Refer to your universit	v catalo	og year and	ENSC102	4		
MATHEMATICS (4 units minimur	n)		degree audit for specific	5	0,	Additional 4 units of upp		ISC	
	<u> </u>		all major requ		U		4		
PHYSICAL SCIENCE ( 4 units minin	um)		<b>5</b> 1			Please review course offer	ngs for co	ourse	
			UNIVERSITY OF CALIFO		ettine.	availability, prerequisites, a	U		
Two additional 4-unit courses from life sciences or	physica	1 science				course planning. PLEA		-	
			UCINIVERSIL	JL ý	<b>S</b> ~ &	<b>ENSC002</b> is a prereq			
					12 132	ENSC upper-div.			

Name:			MATH APPLIED PHYS COURSEWORK					
SID #:			MATH Bachelor of Science (Fall 2017 catalog to current)					
BREADTH REQUIREMENTS (180 units minimum to graduate, 216 max)			MATH Core Requirement Lower-Div Entire major GPA must completed with at least a 2.00 GPA			MATH PHYS Option Concentration Upper-Division Coursework		
Common Breadth Courses			Course Of	<u>ferings</u>		Course Offerin	<u>1gs</u>	
English (12 units) - Grade of "C" or better is	s require	ed	Course Name	Units	Completed	The following must be ta	ken fro	om the
Course Name	Units		MATH009A	4		MATH PHYS Core Co		
ENGL001A	4		MATH009B	4		Course Name	Units	Grade
ENGL001B	4		MATH009C	4		MATH131	4	
ENGL001C	4		MATH031	5		MATH135A&B or 149A&B	8	
HUMANITIES (12 units minimum	,		<u>CS010</u>	4		MATH146A	4	
One (1) course from: World History 10, 1	<mark>5, or 20</mark>		MATH010A	4		MATH146B	4	
			MATH010B	4		MATH146C	4	
One (1) course in: fine arts, literature, philosophy, o	<mark>r religio</mark>	us studies	MATH046	4		PHYS MATH Upper-D	ivision	must
			CS011 is recommended			take the following:		
One (1) additional humanities cours	se		Recommended Science Sequence			MATH135A	4	
			for applied	PHYS	-	MATH165A	4	
SOCIAL SCIENCES (12 units minim	um)	•	PHYS040A	5		Take 1 of the follo	wing:	
One (1) course in: economics, political s	cience		PHYS040B	5		MATH120 or MATH171	4	
			PHYS040C	5		PHYS Upper-Division n	nust tak	the the
One (1) course in: anthropology, psychology	. sociol	ogv	Please refer to prerequisite requirements			following:		
		85	for all MATH & PHYS courses.			PHYS130A	4	
One (1) additional social sciences cou	irse					PHYS130B	4	
			Please note: MATH144 is a prerequsite			Take 1 series of the following:		
ETHNIC STUDIES (4 units minimu	(m)		requirement for M	-	-	PHYS135A, 135B, 136	12	8.
May count towards addt'l humanities or addt'l social scie	,	t not both	MATH150A (also requ					
	<u>,</u>		MATH010B with C- or				8	
BIOLOGICAL SCIENCES (4 units min	imum)	<u> </u>	upper-div PHYS preqs.					
			Refer to your universit			Please review course offeri	-	
MATHEMATICS (4 units minimur	n)		degree audit for specific	5	0,	availability, prerequisites, a		ropriate
			all major requ		-	course plannin	ıg.	
PHYSICAL SCIENCE ( 4 units minim	(1)	<u> </u>				10 A 3		
			UCR	JNIVE	RSITY OF CA	ALIFORNIA demic Ad	č.	
Two additional 4-unit courses from life sciences or	nhysica	1 science			EDC		Ing	
Two additional T and courses from the selences of					СЦЭ	JL M	<sup>6</sup>	
						हा हो	Nº N	

Name:			COMPUTATIONAL MATH COURSEWORK					
SID #:			MATH Bachelor of Science (Fall 2017 catalog to current)					
BREADTH REQUIREMENTS (180 units minimum to graduate, 216 max)			MATH Core Requirement Lower-Div Entire major GPA must completed with at least a 2.00 GPA			<b>Computational MATH Concentration</b> Lower & Upper-Division Coursework		
Common Breadth Courses			Course Of	<u>ferings</u>		Course Offerin	ngs	
English (12 units) - Grade of "C" or better is	s require	d	Course Name	Units	Completed	The following must be ta	ken from the	
Course Name	Units	<b></b>	MATH009A	4		MATH General Core Co	oncentration	
ENGL001A	4		MATH009B	4		Course Name	Units Grade	
ENGL001B	4		MATH009C	4		MATH131	4	
ENGL001C	4		MATH031	5		MATH120	4	
HUMANITIES (12 units minimum	<i>′</i>		<u>CS010</u>	4		MATH132	4	
One (1) course from: World History 10, 1	5, or 20		MATH010A	4		MATH135A	4	
			MATH010B	4		MATH135B	4	
One (1) course in: fine arts, literature, philosophy, o	<mark>r religio</mark>		MATH046	4		Computational MATH c	concentration	
			MATH/CS011	4		must take the follo	owing:	
One (1) additional humanities cours	se		Year of Se	cience		CS012	4	
			BIOL005, CHEM001,	or PHY	S040 Series	CS014	4	
SOCIAL SCIENCES (12 units minim	um)					CS141	4	
One (1) course in: economics, political s	cience					CS150	4	
						One addt'l CS from tec	chn elective	
One (1) course in: anthropology, psychology	, sociolo	gy	Please refer to prerequisite requirements		CS 4			
			for all MATH courses.			16 units of techn elective chosen from		
One (1) additional social sciences cou	irse					CS111	4	
			Please note: MATH14	44 is a p	orerequsite	MATH121	4	
ETHNIC STUDIES (4 units minimu	ım)		requirement for M	ATH14	5A and	MATH126	4	
May count towards addt'l humanities or addt'l social scie		t not both	MATH150A (also requires MATH009C &			MATH146A	4	
			MATH010B with C-	or bett		MATH146B	4	
BIOLOGICAL SCIENCES (4 units min	imum)		accordir	ngly.		MATH146C	4	
			Refer to your universit	y catalo	og year and	MATH149A	4	
MATHEMATICS (4 units minimur	n)		degree audit for specific			MATH149B	4	
			all major requ	uiremen	ts.	MATH171	4	
PHYSICAL SCIENCE ( 4 units minin	num)					CS130	4	
			UNIVERSITY OF CALIFOR	RNIA De	mic Adv.	CS166	4	
Two additional 4-unit courses from life sciences or	physica	1 science	UC RIVERSID	Ac Ac	φ Ω	CS170	4	
				L ipito		CS177	4	
					<u> </u>			