Transmittal Memo

Date: November 18, 2010

To: Joanne Arhar, Associate Dean for Student Services, Undergraduate Education

From: Lisa Donnelly, ADED Science Education

Re: Curricular revisions to BSE PHSC, BSE LSCM, BSE LFSC, BSE ESCI, BSE, and BSE

ISCI majors

This proposal is to increase total credits required for graduation by 1 for each of the above program, in response to revisions made to program requirement MATH 11022 *Trigonometry*.

Curricular/consultative bodies that have approved this action:

Approved by ADED: November 4, 2011

Approved by TLC SCC: November 17, 2011

Approved by EtHS Curriculum Committee: April 20, 2012

		Preparation Date	e 7-Nov-11	Curriculum Bulletin
		Effective Date	Fall 2012	Approved by EPC
Department	Teaching, Learr	ing and Curriculu	ım Studies	
College		Health and Huma		
Degree		of Science in Edu		
Program Name	Earth Science	Prog	ram Code ES	SCI
Concentration(s)	Conc	entration(s) Code(s	s)	
Proposal	Revise program			
Description of proportion of proportion of proposal will increase in credits	revise the total nu	umber of credits r Trigonometry (fro	equired for g om 2 to 3).	raduation, in response to an
Does proposed revi Current total credit		am's total credit ho Proposed total c		Invest
Describe impact on staffing consideration None	other programs, po ons; need; audience	olicies or procedure e; prerequisites; te	es (e.g., duplic acher educatio	ation issues; enrollment and on licensure):
Units consulted (oth	ner departments, pr	ograms or campus	es affected by	this proposal):
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		Preparation Date	e 7-Nov-11	Curriculum Bulletin
		Effective Date	Fall 2012	Approved by EPC
Department	Teaching, Learni	ng and Curriculu	ım Studies	
College	EH - Education, H	lealth and Huma	n Services	
Degree	BSE - Bachelor o	f Science in Edu	cation	
Program Name	Integrated Science	e Prog	ram Code IS	CI
Concentration(s) ESCI, LFSC, and		Science, Life Sc	ience, Physic	cs Concentration(s) Code(s) CHEI
Proposal	Revise program			
				raduation, in response to an
	vision change prograr	n's total credit ho	urs? 🛚 🖾 Yes	s □ No
Current total credi	t hours: 143-147	Propos	sed total credit	hours 144-148
	n other programs, pol tions; need; audience;			cation issues; enrollment and on licensure):
Units consulted (o None	ther departments, pro	grams or campus	ses affected by	this proposal):
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College Dean (or	designee)			
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Dean of Graduate	Studies (for graduate	proposals)		
Provost and Senio	r Vice President for A	cademic Affairs (or designee)	

		Preparation Date	9 7-Nov-11	Curriculum Bulletin
		Effective Date	Fall 2012	Approved by EPC
Department	Teaching, Learn	ing and Curriculu	m Studies	
College	EH - Education,	Health and Huma	n Services	
Degree	BSE - Bachelor	of Science in Edu	cation	
Program Name	Life Science	Prog	ram Code L	FSC
Concentration(s)	Conce	entration(s) Code(s	:)	
Proposal	Revise program			
Description of propo This proposal will r increase in credits	revise the total nu			graduation, in response to an
Does proposed revision Current total credit h		am's total credit ho Proposed total c		
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	Preparation D	Date 7-Nov-11	Curriculum Bulletin
	Effective Date	e Fall 2012	Approved by EPC
Department	Teaching, Learning and Curric	ulum Studies	
College	EH - Education, Health and Hu	man Services	
Degree	BSE - Bachelor of Science in E	ducation	
Program Name	Life Science Chemistry Pi	rogram Code L\$	SCM
Concentration(s)	Concentration(s) Cod	le(s)	
Proposal	Revise program		
increase in credit	revise the total number of credit s for MATH 11022 Trigonometry ((from 2 to 3).	raduation, in response to an
• •	ision change program's total credit		
Current total credit	hours: 135 Proposed total	al credit hours 13	66
	other programs, policies or procections; need; audience; prerequisites;		
Units consulted (oti None	her departments, programs or cam	puses affected by	/ this proposal):
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Dean of Graduate	Studies (for graduate proposals)		
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		Effective Date	Fall 2012	Approved by EPC
Department	Teaching, Learni	ng and Curriculu	ım Studies	
College	EH - Education, I	_		
Degree	BSE - Bachelor o	f Science in Edu	cation	
Program Name	Physical Science	Prog	ram Code P	HSC
Concentration(s)	Conce	ntration(s) Code(s	s)	
Proposal	Revise program		•	
Description of prop This proposal will increase in credit		mber of credits r rigonometry (fro	required for gom 2 to 3).	raduation, in response to an
Does proposed rev Current total credit	rision change program hours: 131	m's total credit ho Proposed total c		_ ···
	n other programs, po ons; need; audience			cation issues; enrollment and on licensure):
Units consulted (ot None	her departments, pro	ograms or campus	ses affected by	y this proposal):
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Dean of Graduate	Studies (for graduate	proposals)		
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Proposal Summary Program Requirement Revisions for the BSE in Physical Science major

Subject Specification: This proposal will revise the program requirements for the following Bachelor of Science in Education degrees: Physical Science [BSE PHSC], Life Science [BSE LFSC], Life Science Chemistry [BSE LSCM], Earth Science [BSE ESCI, and Integrated Science Chemistry/Earth Science/Life Science/Physics concentrations [BSE ISCI CHEM, BSE ISCE ESCI, BSE ISCI LFSC, and BSE ISCI PHY].

Background Information: The Department of Mathematical Sciences has recently revised the credit hours for MATH 11022 Trigonometry from 2 to 3 credits. This course is a concentration requirement for students in the Adolescent & Young Adult Education Science majors. As a result, the total number of credits required for graduation increases by 1.

Alternatives and Consequences: Without this action, student program requirements will not reflect actual requirements.

Specific Recommendation and Justification: Increase the following total requirements

required for graduation by 1:

Physical Science: from 121 to 13

Physical Science: from 131 to 132 Life Science: from 132 to 133

Life Science Chemistry: from 134 to 135

Earth Science: from 133 to 134

Integrated Science Chemistry: from 144 to 145 Integrated Science Earth Science: from 143 to 144 Integrated Science Life Science: from 144 to 145 Integrated Science Physics: from 147 to 148

Timetable and Actions Required: The proposal will go through the required curriculum approval process for changes to take effect in fall 2012. The following is the anticipated schedule:

Approved by ADED: November 4, 2011

Approved by TLC Curriculum Committee: November 17, 2011 Presented to EHHS Curriculum Committee: December 2, 2011

Presented to EPC: January 23, 2012

Earth Science - B.S.E. Program Requirements

* Earth Science semester-by-semester Roadmap

Type Legend: DD Diversity-Domestic; DG Diversity-Global; KAD Kent Core Additional; KBS Kent Core Basic Sciences; KCM Kent Core Composition; KFA Kent Core Fine Arts; KHU Kent Core Humanities; KMC Kent Core Mathematics and Critical Reasoning; KSS Kent Core Social Sciences; WIC Writing Intensive

ype	Course		Title	Credits
f. P., in some , is	US	10097	Destination Kent State: First Year Experience	1
#.	MAJORP	ROGRAM R	EQUIREMENTS (59 credits) Count in Major GPA	Annual Mark Control of Control of the Control of th
pe	Course	21.10.00.007.77710.07	Title	Credits
88	BSCI	10110	Biological Diversity	4
AD		10120	Biological Foundations	4
B\$	CHEM	10060	General Chemistry I	
5> 8\$	OTICINI	10061	General Chemistry II	
55 65		10062	General Chemistry I Laboratory	
	December 2 Sections	10063		
BS	GEOG	31062	General Chemistry II Laboratory	**************************************
	GEOG	THE RESERVE AND ADDRESS OF	Meteorology	an talah kacamatan dan Kabupatèn dan Ke
	Angel et augment	31064	Climatology	
		41073	Conservation of Natural Resources	
88	GEOL	11040	Earth Dynamics	3
88		11041	Earth Dynamics Laboratory	. 1
BS		11042	Earth History	3
83	ng kabupatèn kabupat dan salah	11043	Earth History Laboratory	
BS	i Langton auto a consequence of	21080	Oceanography	3
	1	23063	Earth Materials I	4
		31070	Earth Materials II (4)	4
	1	32066	Geomorphology (4)	
B\$	PHY	13001	General College Physics I	4
BS		13002	General College Physics II	4
BS		13021	General College Physics Laboratory I	1
₿\$		13022	General College Physics Laboratory II	1
		21430	Frontiers in Astronomy (3)	
B\$		2	Of Contract of the Contract of	3
	A	24001	Astronomy (3)	
٧.	ADDITION	IAL PROGR	AM REQUIREMENTS (79/credits) 74 C/	
pe	Course		Title	Credits
VIC	ADED	32142	Principles of Teaching Adolescents*	3
	: 	32277	Teaching Science in Secondary Schools*	3
		42277	Topics in Secondary School Science*	3
		42292	Field Work Practicum*	3
	71977 T	42357	Secondary Student Teaching*	9
		49525	Inquiry into the Profession*	3
	CI	47330	Reading and Writing in Adolescent/Adulthood*	3
	CULT	29535	Education in a Democratic Society*	3
	EPSY	29525	Educational Psychology*	3
	ITEC	19525	Educational Technology*	3
W.	MATH	11010	Algebra for Calculus*	/ 3
		11022	Trigonometry	
AD	openios subsequent to steel	12002	Analytic Geometry and Calculus I	5
	Million Marie Control Control Control	10041	Elementary Probability and Statistics (3)	3 /
		30011	Basic Probability and Statistics (3)	3
HU	PHIL	11001	Introduction to Philosophy	3
SS		- FIOUI	: Billoudottoll to Firstosophy	***************************************
36 10 SS	PSYC	11762	General Psychology	3
D.	SOC	12050	Introduction to Sociology	3
D.	SPED	23000	Introduction to Exceptionalities	3
		Compositio	m*	6-8

^{*}A minimum C (2.0) grade must be earned. A minimum C (2.0) grade must be earned in ADED 32142 to to fulfill the writing-



Roadmap: Earth Science - Bachelor of Science in Education [EH-BSE-ESCI] College of Education, Health and Application Streets

School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

Course Subject and Title	Credit	Upper	Min.	Major	Important Notes
	Hours	Dív.	Grade	GPA	
Semester One: [18 Credit Hours]	-	- Carronna	c. Statement		
GEOL 11040 Earth Dynamics	3	1, 1, 2	C	-	Fulfills Kent Core Basic Sciences
GEOL 10410 Biological Disputs	1		C		
BSCI 10110 Biological Diversity	4	-			Futfills Kent Core Mathematics and Critical Reasoning:
MATH 11010 Algebra for Calculus	3			The Country of the Co	may be waived based on placement test
PSYC 11762 General Psychology	3			-	Fulfills Kent Core Social Sciences and domestic diversity
US 10097 Destination Kent State: FYE	1				Not required of transfer students with 25 credits
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Two: [18 Credit Hours]				5-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	
Requirement: pass Praxis LReading (174 score), Writing (172 sc	ore) ai	rd Mat	hemati	cs (174 score)
CULT 29535 Education in a Democratic Society	3		C		
EPSY 29525 Educational Psychology	3	X 4	С		
GEOL 11042 Earth History	3		С	2	Fulfills Kent Core Basic Sciences
GEOL 11043 Earth History Laboratory	1		С	#	
MATH 11022 Trigonometry	3/4	1			May be waived based on placement test
SOC 12050 Introduction to Sociology	3	7			Fulfills Kent Core Social Sciences
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Three: [17 Credit Hours]		· · · · · · · · · · · · · · · · · · ·		interplanation and	
MATH 12002 Analytical Geometry and Calculus I	5	1,07			Fuffils Kent Core Additional
BSCI 10120 Biological Foundations	4	1	С	-	Fulfills Kent Core Additional
CHEM 10060 General Chemistry I	4		С	B	Fulfills Kent Core Basic Sciences
CHEM 10062 General Chemistry Laboratory I	1		С		4 7 8 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Kent Core Requirements	3			1	See Kent Core Summary on page 2
Semester Four: [17 Credit Hours]	downsymmotics	***************************************	on by present the second		
Requirement: apply and be accepted into advanced study	by en	d of te	ım; m	nimum	2.75 cumulative GPA
CHEM 10061 General Chemistry II	4	T	С		
CHEM 10063 General Chemistry Laboratory II	1		c	88	Fulfills Kent Core Basic Sciences
GEOL 21080 Oceanography	3		С	22	
MATH 10041 Elementary Probability and Statistics or MATH 30011 Basic Probability and Statistics	3				
PHIL 11001 Introduction to Philosophy	3				Fulfills Kent Core Humanities and global diversity course requirement
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Five: [18 Credit Hours]	and the second second				
ADED 32142 Principles of Teaching Adolescents	3	1.2. A.1.	С		Fulfills writing-intensive course requirement; offered in fall only
ITEC 19525 Educational Technology	3		C	14, 11	
GEOG 31062 Meteorology	3_	羅	С	B	
GEOL 23063 Earth Materials I	4		С	III.	
PHY 13001 General College Physics I	4			168	Fulfills Kent Core Basic Sciences
PHY 13021 General College Physics I Laboratory	1		T	籬	Fulfills Kent Core Basic Sciences



Roadmap: Earth Science - Bachelor of Science in Education

[EH-BSE-ESCI]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

Critical requirements are boldface in shaded areas.

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Six: [18 Credit Hours]	age grown or All Solids	e section to design the section	harassa and a said	(1 · · · · · · · · · · · · · · · · · · ·	родом у у рад Солон Солон (1904 год 1904 год 19 Солон Солон Со
ADED 32277 Teaching Science in Secondary Schools	3	#	C		Offered in spring only
GEOG 31064 Climatology	3	8	G	28	
GEOG 41073 Conservation of Natural Resources	3	翻	С	188	
GEOL 31070 Earth Materials II or GEOL 32066 Geomorphology	4	HE.	С	■	
PHY 13002 General College Physics II	4		С	***	Fulfilis Kent Core Basic Sciences
PHY 13022 General College Physics Laboratory II	1		С	##	
Semester Seven: [15 Credit Hours]		e este de l'Appendie	2091204001111100		
ADED 42277 Topics in Secondary School Science	3	-	С		
ADED 42292 Field Work Practicum	3	摄	C		
Cl 47330 Reading and Writing in Adolescence/ Adulthood	3	222	С		
PHY 21430 Frontiers in Astronomy or PHY 24001 Astronomy	3			鞍	Fulfills Kent Core Basic Sciences
SPED 23000 Introduction to Exceptionalities	3]	
Semester Eight: [12 Credit Hours]		April Barrier and a c			
ADED 42357 Student Teaching	9		S		
ADED 49525 Inquiry into Professional Practice	3	闡	С		

Graduation Requirements Summary

Minmum	Minimum Upper-	Minimum	Diversity Course	Writing-Intensive	Mini	num
Total Hours	Division Hours	Kent Core Hours	Global / Domestic	valuarg-intensive	Major GPA	Overall GPA
124 1955)	39	36	PHIL 11001 / SPED 23000	ADED 32142	2.60	2.75

Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297	Enrollment based on placement test; a grade of C must be earned for both courses	6-8
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major with MATH 11010	0
Humanities and Fine Arts (9 credit hours) Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts	3 credit hours are fulfilled in this major with PHIL 11001	6
Social Sciences (6 credit hours) Must be selected from two curricular areas	Fulfilled in this major with PSYC 11762 and SOC 12050	0
Basic Sciences (6-7 credit hours) Must include one laboratory	Fulfilled in this major with GEOL 11040,11041, 21080; CHEM 10060, 10061, 10062, 10063; and PHY 21430 or PHY 24001	0
Additional (6 credit hours) Must be selected from two Kent Core categories	Fulfilled in this major with MATH 12002 and BSCI 10120	0

Notes on Licensure:

- Successful complete Praxis II "Principles of Learning and Teaching" and Praxis II specialty test "Earth Science-Content Knowledge" (passing score 151).
- 2. Apply for teaching license (pick up licensure packet in 304 White Hall).

Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a pass/fail grade. Visit www.kent.edu/catalog/kent-core for course list.

Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/catalog/diversity for course list.

Page 2 of 3 | Last Updated: 6-Apr-11/JS

Integrated Science - B.S.E. Program Requirements

- Chemistry concentration semester-by-semester Roadmap
- Earth Science concentration semester-by-semester Roadmap
- Life Science concentration semester-by-semester Roadmap
- Physics concentration semester-by-semester Roadmap

Type Legend: DD Diversity-Domestic; DG Diversity-Global; KAD Kent Core Additional; KBS Kent Core Basic Sciences; KCM Kent Core Composition; KFA Kent Core Fine Arts; KHU Kent Core Humanities; KMC Kent Core Mathematics and Critical Reasoning; KSS Kent Core Social Sciences; WIC Writing Intensive

Please read the sections in the University Catalog on Kent Core, diversity and writing-intensive requirements.

•	Course		TATE: FIRST YEAR EXPERIENCE (1 credit) Title	Credits
	US	10097	Destination Kent State: First Year Experience	J
	MAJOR P	ROGRAM RE	QUIREMENTS (43 credits) Courses count in major GPA	
ŧ	Course		Title	Credits
	BSCI	10110	Biological Diversity	4
		10120	Biological Foundations	4
		30140	Cell Biology	4
	9 *	30156	Elements of Genetics	3
	CHEM	10060	General Chemistry I	4
		10061	General Chemistry II	4
	4	10062	General Chemistry I Laboratory	1
		10063	General Chemistry II Laboratory	1
		20481	Basic Organic Chemistry I	4
	GEOG	31062	Fundamentals of Meteorology	3
	1	41073	Conservation of Natural Resources	3
	GEOL	11040	- Earth Dynamics	3
,	-	11041	Earth Dynamics Laboratory	1
	e de la composición dela composición de la composición dela composición de la compos	11042	Earth History	3
		11043	Earth History Laboratory	1
	ADDITION	AL PROGRA	M REQUIREMENTS 178-Gredits) 74 eredits	
è	Course	alam na protesta de la grapa de la grapa de	Title	Credits
	ADED	32142	Principles of Teaching Adolescents	3
		32277	Teaching Science in Secondary Schools*	3
	n. 1	42277	Topics in Secondary School Science*	3
	Y	42292	Field Work Practicum*	3
	nger i de en d La companyation de la companyation	42357	Secondary Student Teaching*	
		49525	Inquiry into the Professional Practice*	3
	CI	47330	Reading and Writing in Adolescent/Adulthood*	a š
	CULT	29535	Education in a Democratic Society*	3
	EPSY	29525	Educational Psychology*	
	ITEC	19525	Educational Technology*	3
) '	MATH	11010	Algebra for Calculus*	
	4	11022	Trigonometry	/ 3.5
	diameter and the	12002	Analytic Geometry and Calculus I	(3 5
		10041	Elementary Probability and Statistics (3)	
			Or	3
	7	30011	Basic Probability and Statistics (3)	0
	PHIL	11001	Introduction to Philosophy	3
	PSYC	11762	The second secon	i may manafi sa
	POTC	11/02	General Psychology	3
	soc	12050	Introduction to Socialanu	•••••••••••••••••••••••••••••••••••••••
			Introduction to Sociology	3
	SPED	23000	Introduction to Exceptionalities	3
		Composition	The state of the s	6-8
			nd Fine Arts (minimum one from each)	6
	CONCENT	TRATION REC	QUIREMENTS (26-30 credits)	
	Chemistry		The state of the s	
	Earth Scie	nce (26)	· · · · · · · · · · · · · · · · · · ·	.,
	Life Scien		and the second of the second contract the seco	
	Physics (3	n)	the state of the s	

*A minimum C (2.0) grade must be earned. A minimum C (2.0) grade must be earned in ADED 32142 to fulfill the writing-intensive requirement.

Chemistry Concentration

For semester-by-semester course sequencing for this program, view the 2011-2012 Roadmap.

уре	Course		Title	Credits
	CHEM	30105	Analytical Chemistry I	3
		30284	Introductory Biological Chemistry	4
		30301	Inorganic Chemistry I	
		30475	Organic Chemistry Laboratory	1
		40567	Basic Concepts of Physical Chemistry	4
K815	PHY	13001	General College Physics I	4
Kes		13002	General College Physics II	4
K85	4	13021	General College Physics Laboratory I	1
K8S		13022	General College Physics Laboratory II	1
	1	21430	Frontiers in Astronomy (3)	
			ar	3
		24004	Astronomy (3)	

^{*}All courses within the Concentration Requirements must be earned with a minimum C (2.0) grade.

Earth Science Concentration

For semester-by-semester course sequencing for this program, view the 2011-2012 Roadmap

Гуре	Course		Title	Credits
	CHEM	30301	Inorganic Chemistry I	2
	GEOL	21080	Oceanography	3
DG		23063	Earth Materials I	4
		31070	Earth Materiais II (4)	
	1		Or	4
		32066	Geomorphology (4)	
KBS	PHY	13001	General College Physics I	4
KBS		13002	General College Physics II	4
KSS	:	13021	General College Physics Laboratory I	1
KBS		13022	General College Physics Laboratory II	1
		21430	Frontiers in Astronomy (3)	
	4	•	OT	3
		24001	Astronomy (3)	

^{*}All courses within the Concentration Requirements must be earned with a minimum C (2.0) grade.

Life Science Concentration

For semester-by-semester course sequencing for this program, view the 2011-2012 Roadmap.

vpe	Course		Title	Credits
	BSCI	30360	General Ecology	4
		40163	Organic Evolution	3
	CHEM	30284	Introduction to Biological Chemistry	4
	GEOL	21062	Environmental Geology	3
CBS	PHY	13001	General College Physics I	4
<88		13002	General College Physics II	4
(88)		13021	General College Physics Laboratory I	1
ŒS.		13022	General College Physics Laboratory II	1
		21430	Frontiers in Astronomy (3)	rational transfer of the second secon
			or	. 3
		24001	Astronomy (3)	

*All courses within the Concentration Requirements must be earned with a minimum C (2.9) grade.

Physics Concentration

For semester-by-semester course sequencing for this program, view the 2011-2012 Roadmap.

Type	Course		Title	Credits
	CHEM	40567	Basic Concepts of Physical Chemistry	4
	MATH	12003	Analytic Geometry and Calculus II	5
46.9	PHY	21430	Frontiers in Astronomy (3)	
		1	or	3
		24001	Astronomy (3)	
		23101	General University Physics I	5
		23102	General University Physics II	5
		30020	Intermediate Physics Laboratory	2
		36001	Introduction Modern Physics I	3
	1	32511	Electronics (4)	**************************************
	*	:	or	3-4
	and a second of the second of	36002	Applications of Modern Physics (3)	- ·
			MINIMUM SUBTOTAL	30

^{*}All courses within the Concentration Requirements must be earned with a minimum C (2.0) grade.



Roadmap: Integrated Science - Chemistry - Bachelor of Science in Education [EH-BSE-ISCI-CHEM] College of Education, Health and Human Services

School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester One: [14 Credit Hours]	rantan an i <u>la</u>	lad sävet av tita			
BSCI 10120 Biological Foundations	4			額	Fulfills Kent Core Basic Sciences
MATH 11010 Algebra for Calculus	3				Fulfills Kent Core Mathematics and Critical Reasoning
PSYC 11762 General Psychology	3				Fulfills Kent Core Social Sciences and domestic diversity requirement
US 10097 Destination Kent State: FYE	1				Not required of transfer students with 25 credits
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Two: [15 Credit Hours]	Andrew Street,				
Requirement: successful completion of Praxis I Reading (score	174, W	riting (score	172) and Mathematics (score 174)
BSCI 10110 Biological Diversity	4	1 1 1	C		Fulfills Kent Core Basic Sciences
CULT 29535 Education in a Democratic Society	3		C		
MATH 11022 Trigonometry	, 725			ļ	
SOC 12050 Introduction to Sociology	3/				Fulfills Kent Core Social Sciences
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Three: [13 Credit Hours]	interested the	de bio de la loca	· -	de marini de la companio	
CHEM 10060 General Chemistry I	4		C	B	
CHEM 10062 General Chemistry Laboratory I	1		С		Fulfills Kent Core Basic Sciences
MATH 12002 Analytical Geometry and Calculus I	5			1000	Fulfills Kent Core Additional
Kent Core Requirement	3			1	See Kent Core Summary on page 2
Semester Four: [14 Credit Hours]	described to			-jantores artimes	
CHEM 10061 General Chemistry II	4		c	-	
CHEM 10063 General Chemistry Laboratory II	1	1111	С	198	Fulfills Kent Core Additional
EPSY 29525 Educational Psychology	3		С		
BSCI 30156 Elements of Genetics	3		С	2	
PHIL 11001 Introduction to Philosophy	3				Fulfills Kent Core Humanities and global diversity course requirement
Semester Five: [16 Credit Hours]	åssur-		A commence of the	akan mananan a	a kanana ya gan mangawani wa na magangana na na na danasa na
Requirement: minimum 2.75 cumulative GPA required by	end of	term	v see tyksterne Fregerigestery	Waring.	
BSCI 30140 Cell Biology	4	-	Tc	7 88	
CHEM 20481 Basic Organic Chemistry I	4	1	С	198	
CHEM 30475 Organic Chemistry Laboratory	1		С	18	
GEOL 11040 Earth Dynamics	3				Fulfills Kent Core Basic Sciences
GEOL 11041 Earth Dynamics Laboratory	1		1	92	
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Six: [16 Credit Hours]	Secretary and page	a gara karakera ya yangan	The second second	- Anna San Canada San	
Requirement: apply and be accepted for Advanced Study	by the	end o	f term;	2.75 c	umulative GPA
CHEM 30284 Introduction to Biological Chemistry	4		C	100	
CHEM 30301 Inorganic Chemistry I	2	88	С		
GEOL 11042 Earth History	3		C	8	
GEOL 11043 Earth History Laboratory	1		С	<u>M</u>	Fulfills Kent Core Basic Sciences
PHY 21430 Frontiers in Astronomy or PHY 24001 Astronomy	3		С	#	Fulfills Kent Core Basic Sciences
SPED 23000 Introduction to Exceptionalities	3		С		Fulfills domestic diversity course requirement





Roadmap: Integrated Science - Chemistry - Bachelor of Science in Education

[EH-BSE-ISCI-CHEM]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies

Catalog Year: 2011-2012

Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Seven: [14 Credit Hours]					
Requirement: apply for student teaching					
ADED 32142 Principles of Teaching Adolescents	3	B	С		Fulfills writing-intensive requirement; offered in fall only
ITEC 19525 Educational Technology	3		C		
CHEM 30105 Analytical Chemistry	3	*		B	
PHY 13001 General College Physics I	4		С	石	Fulfills Kent Core Basic Sciences
PHY 13021 General College Physics Laboratory I	1		С	-	Fulfills Kent Core Basic Sciences
Semester Eight: [14 Credit Hours]	tackers and a second	/**** (*** *** 1. <u></u> .			
ADED 32277 Teaching Science in Secondary Schools	3	m =	C	li .	Offered in spring only
CI 47330 Reading and Writing in Adolescence	3	86	С		
GEOG 41073 Conservation of Natural Resources	3	-	С	, pp	
PHY 13002 General College Physics II	4		С	18	E BILLY AND DO SO
PHY 13022 General College Physics Laboratory II	1		С	8	Fulfills Kent Core Basic Sciences
Semester Nine: [16 Credit Hours]	10,700,000 - 10,000 - 1	Solvini dada ya	Anti-Alexander	***********	
Requirement: apply for graduation	- 75				
ADED 42277 Topics in Secondary School Science	3		C	133	
ADED 42292 Field Work Practicum	3	88	C	14.5	
CHEM 40567 Basic Concepts of Physical Chemistry	4	-		R	
GEOG 31062 Fundamentals of Meleorology	3	觀	Ç	B	
MATH 10041 Elementary Probability and Statistics or MATH 30011 Basic Probability and Statistics	3				
Semester Ten: [12 Credit Hours]			harde out to the east		
ADED 42357 Secondary Student Teaching	8		S		
ADED 49525 Inquiry into Professional Practice	3	85	C	1	

Graduation Requirements Summary

	WAS ON THE OWNER THAT IS	TOMORION 6	activities a				
f	—-Minimum	Minimum Upper-	Minimum	Diversity Course	Writing-Intensive	Mini	mum
Ł	Total Hours	Division Hours	Kent Core Hours	Global / Domestic	vviiuig-mensive	Major GPA	Overall GPA
4	5 >4)	39	36	PHIL 11001/ SPED 23000	ADED 32142	2.6	2.75

Kent-Core Summary

Kent Core Categories	Important Notes `	Remaining Credit Hours	
Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297	Enrollment based on placement test; a grade of C must be earned for both courses	6-8	
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major MATH 11010	0	
Humanities and Fine Arts (9 credit hours) Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts	3 credit hours are fulfilled in this major with PHIL 11001	6	
Social Sciences (6 credit hours) Must be selected from two curricular areas	Fulfilled in this major PSYC 11762 and SOC 12050	0	
Basic Sciences (6-7 credit hours) Must include one laboratory	Fulfilled in the major with BSCI 10120 , GEOL 11040 and 11041; and CHEM 10060	0	
Additional (6 credit hours) Must be selected from two Kent Core categories	Fulfilled in this major with CHEM 10061 and MATH 12002	0	

Notes on Licensure:

- 1. Complete Praxis II "Principles of Learning and Teaching grades 7-12" (passing score 165) and Praxis II specialty test.
- 2. Apply for teaching license (pick up licensure packet in 304 White Hall).

Page 2 of 3 | Last Updated: 13-Apr-11/JS



Roadmap: Integrated Science - Chemistry - Bachelor of Science in Education

[EH-BSE-ISCI-CHEM]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a pass/fail grade, Visit www.kent.edu/catalog/kent-core for course list.

Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/catalog/diversity for course list.

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade. Visit www.kent.edu/catalog/wic for course list.

Upper-Division Requirement

Students must complete a minimum 39 upper-division (numbered 30000 to 49999) credit hours of coursework. Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.



Roadmap: Integrated Science - Earth Science -Bachelor of Science in Education

[EH-BSE-ISCI-ESCI]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

discontinuorane and shaded areas) must be complete	70 111 11	10 0011	icate) i	isieu i	o ensure a limely graduation.
Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester One: [14 Credit Hours]	deput transform	e booking a group of		handara (mara)	
GEOL 11040 Earth Dynamics	3				
GEOL 11041 Earth Dynamics Laboratory	1			19	Fulfills Kent Core Basic Sciences
MATH 11010 Algebra for Calculus	3				Fulfills Kent Core Mathematics and Critical Reasoning
PSYC 11762 General Psychology	3				Fulfills Kent Core Social Sciences and domestic diversity requirement
US 10097 Destination Kent State: FYE	1_				Not required of transfer students with 25 credits
Kent Core Requirement	3				See Kent Core Summary on page 3
Semester Two: [15 Credit Hours]			and the state of the state of	Take and makes a services	
Requirement: pass Praxis (Reading (score 174), Writing (score	172) ar	nd Mati	remati	cs (score 174)
CULT 29535 Education in a Democratic Society	3		C		
GEOL 11042 Earth History	3		C	161	F. Wille Mark Core Pro-la Colonia
GEOL 11043 Earth History Laboratory	1		С	186	Fulfills Kent Core Basic Sciences
MATH 11022 Trigonometry	X	3			
SOC 12050 Introduction to Sociology	3				Fulfills Kent Core Social Sciences
Kent Core Requirement	3				See Kent Core Summary on page 3
Semester Three: [16 Credit Hours]	A Charles Control of	***************************************		er om by and mile	
CHEM 10060 General Chemistry I	4	100.72	C	100	
CHEM 10062 General Chemistry Laboratory I	1		С	186	Fulfills Kent Core Additional
MATH 12002 Analytic Geometry and Calculus I	5				
GEOL 21080 Oceanography	3			M	
Kenf Core Requirement	3				See Kent Core Summary on page 3
Semester Four: [14 Credit Hours]	uda manusungida	Salatain lagaireany	the state of the s	Sewings qualitatique	
CHEM 10061 General Chemistry II	4		С	-	
CHEM 10063 General Chemistry Laboratory II	1		С	188	Fulfills Kent Core Basic Sciences
EDPF 29525 Educational Psychology	3	1.11	С		
PHIL 11001 Introduction to Philosophy	3			1	Fulfills LER Humanities and global diversity course requirement
Kent Core Requirements	3		Ì		See Kent Core Summary on page 3
Semester Five: [17 Credit Hours]	412.7	24. 6.20 Page	to properly the section	-re-Villighterier.com	
Requirement: minimum 2.75 cumulative GPA required by	the en	d of te	rm		
BSCI 10110 Biological Diversity	4	T	C	20	
CHEM 20481 Basic Organic Chemistry I	4		С		
GEOL 23063 Earth Materials I	4	1	С	(B)	
PHY 13001 General College Physics I	4		С	B	
PHY 13021 General College Physics Laboratory I	1		С	•	
Semester Six: [16 Credit Hours]	degrapes poster	N CONTRACTOR	Control Control	december 1980	
Requirement: apply and be accepted for Advanced Study	minir	num 2.	75 cun	nulativ	o GPA
BSCI 10120 Biological Foundations	4	- Assertition	C		THE THE THE
GEOL 31070 Earth Materials II or GEOL 32066 Geomorphology	4	887	С	2	
PHY 13002 General College Physics II	4		C	95	
PHY 13022 General College Physics Laboratory II	1		C	1 198	
SPED 23000 Introduction to Exceptionalities	3		С	1	Fulfills domestic diversity course requirement
		٠		<u> </u>	T





Roadmap: Integrated Science - Earth Science -Bachelor of Science in Education

[EH-BSE-ISCI-ESCI]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

Critical requirements are boldface in shaded areas.

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Seven: [12 Credit Hours]	See a see see	in region was		-	
Requirement: apply for student teaching					
ADED 32142 Principles of Teaching Adolescents	3	***	С		Fulfills writing-intensive course requirement; offered in fall only
ITEC 19525 Educational Technology	3		C		
Cl 47330 Reading and Writing in Adolescence	3		¢		
GEOG 31062 Fundamentals of Meteorology	3		С	-	
Semester Eight: [15 Credit Hours]	eng or a second	indexed Westing		de moneya	
ADED 32277 Teaching Science in Secondary Schools	3		С		
BSCI 30140 Cell Biology	4	B	С	B	
BSCI 30156 Elements of Genetics	3	198	С	E	
CHEM 30301 Inorganic Chemistry I	2	66	С	- 2	
PHY 21430 Frontiers in Astronomy or PHY 24001 Astronomy	3		С	18	
Semester Nine: [12 Credit Hours]		games and annual con-	of dameiros antigos	A	
Requirement: apply for graduation					
ADED 42277 Topics in Secondary School Science	3		C	T	
ADED 42292 Field Work Practicum	3	188	С	1	
GEOG 41073 Conservation of Natural Resources	3	190	С	S .	
MATH 10041 Elementary Probability and Statistics or MATH 30011 Basic Probability and Statistics	3				
Semester Ten: [12 Credit hours]	Mares sendanthan				
ADED 42357 Secondary Student Teaching	9		S		
ADED 49525 Inquiry into Professional Practice	3		C		

Graduation Requirements Summary

Total Hours Division Hours Kent Core Hours Global / Dome	Writing-Intensive	
Total Todas Consist Todas Consist Donle	estic Major GPA Overall GPA	
145.) 39 · · · 36 PHIL 11001 / SPE	D 23000	1

Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours	
Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297	Enrollment based on placement test; a grade of C must be earned for both courses	6-8	
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major MATH 11010	0	
Humanities and Fine Arts (9 credit hours) Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts	3 credit hours are fulfilled in this major with PHIL 11001	6	
Social Sciences (6 credit hours) Must be selected from two curricular areas	Fulfilled in this major PSYC 11762 and SOC 12050	0	
Basic Sciences (6-7 credit hours) Must include one laboratory	Fulfillied in the major with CHEM 10061 and 10063; GEOL 11040, 11041, 11042 and 11043	0	
Additional (6 credit hours) Must be selected from two Kent Core categories	Fulfilled in this major with CHEM 10060 and MATH 12002	0 -	

Special Notes for Degree/Major:

- 1. Pass Praxis II "Principles of Learning and Teaching" and specialty test.
- 2. Apply for teaching license (pick up licensure packet in 304 White Hall).



Roadmap: Integrated Science - Earth Science -Bachelor of Science in Education

[EH-BSE-ISCI-ESCI]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies

Catalog Year: 2011-2012

Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a pass/fail grade. Visit www.kent.edu/catalog/kent-core for course list.

Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/catalog/diversity for course list.

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade. Visit www.kent.edu/catalog/wic for course list.

Upper-Division Requirement

Students must complete a minimum 39 upper-division (numbered 30000 to 49999) credit hours of coursework. Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.



Roadmap: Integrated Science - Life Science - Bachelor of Science in Education [EH-BSE-ISCI-LFSC] College of Education, Health and Human Services

School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

BSCI 10120 Biological Foundations A	Course Subject and Title	Credit Hours	Upper Div:	Min. Grade	Major GPA	Important Notes
MATH 11010 Algebra for Calculus 3	Semester One: [14 Credit Hours]	and the second		in annial translation to	beer recovered	
PSYC 11762 General Psychology 3	BSCI 10120 Biological Foundations	306410-41.39		C		Fulfills Kent Core Basic Sciences
Variable	MATH 11010 Algebra for Calculus	3				Fulfills Kent Core Mathematics and Critical Reasoning
Seminary on page 2 Seminar	PSYC 11762 General Psychology	3				
Semister Two: [15 Credit Hours] Reading (score 174), Writing (score 172) and Mathematics (score 174)	US 10097 Destination Kent State: FYE	1				Not required of transfer students with 25 credits
Requirement: pass Plaxis Reading (score 174), Writing (score 172) and Mathematics (score 174) BSCI 10110 Biological Diversity	Kent Core Requirement	3				See Kent Core Summary on page 2
SECI 10110 Biological Diversity	\Semester Two: [15 Credit Hours]					
CULT 29535 Education in a Democratic Society MATH 11022 Trigonometry SC 12050 Introduction to Sociology Kent Core Requirement Semester Three: [16 Credit Hours] CHEM 10062 General Chemistry I CHEM 10062 General Chemistry Laboratory I HILL 11001 Introduction to Philosophy Kent Core Requirement See Kent Core Basic Sciences HATH 12002 Analytical Geometry and Calculus I Fulfills Kent Core Basic Sciences MATH 12002 Analytical Geometry and Calculus I Fulfills Kent Core Additional Fulfills Kent Core Basic Sciences	Requirement: pass Praxis Reading (score 174), Writing (score	172) ar	d Mati	nematio	cs (score 174)
MATH 11022 Trigonometry SCC 12050 Introduction to Sociology Rent Core Requirement 3 See Kent Core Summary on page 2 Semester Three: [16 Credit Hours] CHEM 10080 General Chemistry I	BSCI 10110 Biological Diversity	4	100	C		Fulfills Kent Core Basic Sciences
Social Sciences See Kent Core Social Sciences	CULT 29535 Education in a Democratic Society	3	1	C		
Semester Three: [16 Credit Hours] CHEM: 10060 General Chemistry I.	MATH 11022 Trigonometry	12/	3			
Semester Three: [16 Credit Hours] CHEM 10080 General Chemistry I	SOC 12050 Introduction to Sociology	3				Fulfills Kent Core Social Sciences
CHEM 10060 General Chemistry I	Kent Core Requirement	3				See Kent Core Summary on page 2
CHEM 10062 General Chemistry Laboratory I 1 C			amends			
CHEM 10062 General Chemistry Laboratory I 1 C	CHEM 10060 General Chemistry I	4	JAC 6	C		
PHIL 11001 Introduction to Philosophy 3 Fulfills Kent Core Additional PHIL 11001 Introduction to Philosophy 3 See Kent Core Requirement Semester Four: [14 Credit Hours] CHEM 10061 General Chemistry II 4 C Fulfills Kent Core Additional EPSY 29526 Educational Psychology 3 C Fulfills Kent Core Additional EPSY 29526 Educational Psychology 3 C Fulfills Kent Core Additional EPSY 29526 Educational Psychology 3 C Fulfills Kent Core Additional EPSY 29526 Educational Psychology 3 C Fulfills Kent Core Additional EPSY 29526 Educational Psychology 3 C Fulfills Kent Core Additional EPSY 29526 Educational Psychology 3 C Fulfills Kent Core Additional EPSY 29526 Educational Psychology 3 C Fulfills Kent Core Additional EPSY 29526 Educational Psychology BSCI 30156 Elements of Genetics 3 C Fulfills Kent Core Additional EPSY 29526 Educational Psychology BSCI 30140 Cell Biology 4		4		C	#	Fumilis Kent Core Basic Sciences
Semester Four: [14 Credit Hours] CHEM 10081 General Chemistry II	MATH 12002 Analytical Geometry and Calculus I	5			100	Fulfilis Kent Core Additional
CHEM 10061 General Chemistry II	PHIL 11001 Introduction to Philosophy	3				Fulfills Kent Core Humanities
CHEM 10061 General Chemistry II	Kent Core Requirement	3				See Kent Core Summary on page 2
CHEM 10063 General Chemistry Laboratory II 1 C	Semester Four: [14 Credit Hours]			eta ne Manibosino	apid 1 i andra i a andr	
EPSY 29526 Educational Psychology BSCI 30156 Elements of Genetics 3	CHEM 10061 General Chemistry II	4		С	2	
BSCI 30156 Elements of Genetics SPED 23000 Introduction to Exceptionalities 3 C Fulfills domestic diversity course requirement Semester Five: [15 Credit Hours] Requirement: minimum 2.75 cumulative GPA required by end of term BSCI 30140 Cell Biology 4 C GEOL 11040 Earth Dynamics 3 C GEOL 11040 Earth Dynamics 3 C Fulfills Kent Core Basic Sciences Fulfills Kent Core Basic Sciences Semester Six: [15 Credit Hours] Requirement: apply and be accepted for Advanced Study by the end of term; 2.75 cumulative GPA BSCI 30360 General Ecology CHEM 30284 Introduction to Biological Chemistry 4 C GEOG 41073 Conservation of Natural Resources 3 C Fulfills Kent Core Basic Sciences	CHEM 10063 General Chemistry Laboratory II	1	1	С		Fulfills Kent Core Additional
SPED 23000 Introduction to Exceptionalities 3 C Fulfills domestic diversity course requirement Semester Five; [15 Credit Hours] Requirement: minimum 2.75 cumulative GPA required by end of term BSCI 30140 Cell Biology 4 B C B GEOL 11040 Earth Dynamics 3 C B GEOL 11040 Earth Dynamics 3 C B GEOL 11041 Earth Dynamics Laboratory 1 C B Kent Core Requirement 3 See Kent Core Summary on page 2 Semester Six: [15 Credit Hours] Requirement: apply and be accepted for Advanced Study by the end of term; 2.75 cumulative GPA BSCI 30360 General Ecology 4 B C B CHEM 30284 Introduction to Biological Chemistry 4 B C B GEOG 41073 Conservation of Natural Resources 3 B C B GEOL 11042 Earth History 3 C B Fulfills Kent Core Basic Sciences	EPSY 29525 Educational Psychology	3	1	С		
Requirement: minimum 2.75 cumulative GPA required by end of term BSCI 30140 Cell Biology	BSCI 30156 Elements of Genetics	3	**	С	盟	
Requirement: minimum 2.75 cumulative GPA required by end of term BSCI 30140 Cell Biology	SPED 23000 Introduction to Exceptionalities	3		С		Fulfills domestic diversity course requirement
BSCI 30140 Cell Biology CHEM 20481 Basic Organic Chemistry I GEOL 11040 Earth Dynamics GEOL 11041 Earth Dynamics Laboratory Kent Core Requirement 3 See Kent Core Summary on page 2 Semester Six: [15 Credit Hours] Requirement: apply and be accepted for Advanced Study by the end of term; 2.75 cumulative GPA BSCI 30360 General Ecology CHEM 30284 Introduction to Biological Chemistry GEOG 41073 Conservation of Natural Resources 3 C Fulfills Kent Core Basic Sciences	Semester Five: [15 Credit Hours]		nitrat es en en en en en en en en en	A STORE AND A STORY OF		
CHEM 20481 Basic Organic Chemistry I 4 C M GEOL 11040 Earth Dynamics 3 C M GEOL 11041 Earth Dynamics Laboratory 1 C M Kent Core Requirement 3 See Kent Core Summary on page 2 Semester Six: [15 Credit Hours] Requirement: apply and be accepted for Advanced Study by the end of term; 2.75 cumulative GPA BSCI 30360 General Ecology 4 C C M CHEM 30284 Introduction to Biological Chemistry 4 C M GEOG 41073 Conservation of Natural Resources 3 C M GEOL 11042 Earth History 5 C M GEOL 11042 Earth History 5 C M GEOL 11042 Earth History 5 C M GEOL 11042 Earth History 7 C M GEOL 11042 Earth History	Requirement: minimum 2.75 cumulative GPA required by	end of	term		WHEN ME	
GEOL 11040 Earth Dynamics 3 C Fulfills Kent Core Basic Sciences GEOL 11041 Earth Dynamics Laboratory 1 C See Kent Core Basic Sciences Kent Core Requirement 3 See Kent Core Summary on page 2 Semester Six: [15 Credit Hours] Requirement: apply and be accepted for Advanced Study by the end of term; 2.75 cumulative GPA BSCI 30360 General Ecology 4 C See C Se	BSCI 30140 Cell Biology	4		С	T w	ydanda, domininarian da in ingali alian di ingali an an indire da in di ingali anta an angala. I
GEOL 11041 Earth Dynamics Laboratory Kent Core Requirement 3 See Kent Core Summary on page 2 Semester Six: [15 Credit Hours] Requirement: apply and be accepted for Advanced Study by the end of term; 2.75 cumulative GPA BSCI 30360 General Ecology CHEM 30284 Introduction to Biological Chemistry GEOG 41073 Conservation of Natural Resources 3 C GEOL 11042 Earth History Fulfills Kent Core Basic Sciences Fulfills Kent Core Basic Sciences Fulfills Kent Core Basic Sciences	CHEM 20481 Basic Organic Chemistry I	4	1	С	86	
GEOL 11041 Earth Dynamics Laboratory Kent Core Requirement 3 See Kent Core Summary on page 2 Semester Six: [15 Credit Hours] Requirement: apply and be accepted for Advanced Study by the end of term; 2.75 cumulative GPA BSCI 30360 General Ecology 4 C C CHEM 30284 Introduction to Biological Chemistry 4 C C GEOG 41073 Conservation of Natural Resources 3 C Fulfills Kent Core Basic Sciences	GEOL 11040 Earth Dynamics	3		С		
Semester Six: [15 Credit Hours] Requirement: apply and be accepted for Advanced Study by the end of term; 2.75 cumulative GPA BSCI 30360 General Ecology 4 8 C 8 CHEM 30284 Introduction to Biological Chemistry 4 8 C 8 GEOG 41073 Conservation of Natural Resources 3 8 C 8 GEOL 11042 Earth History 3 C 8 Fulfills Kent Core Basic Sciences	GEOL 11041 Earth Dynamics Laboratory	1	1	С	- 100	Fulfills Kent Core Basic Sciences
Requirement: apply and be accepted for Advanced Study by the end of term; 2.75 cumulative GPA BSCI 30360 General Ecology	Kent Core Requirement	3	1			See Kent Core Summary on page 2
Requirement: apply and be accepted for Advanced Study by the end of term; 2.75 cumulative GPA BSCI 30360 General Ecology	Semester Six: [15 Credit Hours]	4	age and a second	A desired to a street to	egeldiensemters	the second second control of the second cont
BSCI 30360 General Ecology 4 B C B CHEM 30284 Introduction to Biological Chemistry 4 C B CEO CHEM 30284 Introduction to Biological Chemistry 4 C C CEO CHEM CONSERVATION OF Natural Resources 3 C CEO CHIMIC CONSERVATION OF Natural Resources 3 C CEO CEO CEO CEO CEO CEO CEO CEO CEO C	Requirement: apply and be accepted for Advanced Study	by the	end o	f term:	2.75 c	umulative GPA
GEOG 41073 Conservation of Natural Resources 3		1	1			
GEOG 41073 Conservation of Natural Resources 3 B C B GEOL 11042 Earth History 3 C B Fulfills Kent Core Basic Sciences	CHEM 30284 Introduction to Biological Chemistry	4	 	c	 	
GEOL 11042 Earth History 3 C Fulfills Kent Core Basic Sciences		3	 		 	
Fulfills Kent Core Basic Sciences	GEOL 11042 Earth History	3	<u> </u>	·	 	
	GEOL 11043 Earth History Laboratory	1	†	J		Fulfills Kent Core Basic Sciences



Roadmap: Integrated Science - Life Science - Bachelor of Science in Education
[EH-BSE-ISCI-LFSC]
College of Education, Health and Human Services
School of Teaching, Learning and Curriculum Studies

Catalog Year: 2011-2012

Critical requirements are boldface in shaded areas.

Course Subject and Title	Credit Hours		Min. Grade	Major GPA	Important Notes
Semester Seven: [14 Credit Hours]	and the second	and the same of th		-	
Requirement:: apply for student teaching		ALC: AND		u Uni	
ADED 32142 Principles of Teaching Adolescents	3	-	C		Fulfills writing-intensive course requirement; offered in fall only
ITEC 19525 Educational Technology	3		С		
Cl 47330 Reading and Writing in Adolescence	3	198	С		
PHY 13001 General College Physics I	4		С	#	
PHY 13021 General College Physics I Laboratory	1		С	16	Fulfills Kent Core Basic Sciences
Semester Eight: [14 Credit Hours]		beer transport	Austrajonauseus	and the second	
ADED32277 Teaching Science in Secondary Schools	3	10	i C		
BSCI 40163 Organic Evolution	3	樫	С	壁	
GEOL 21062 Environmental Geology	3		c	飋	
PHY 13002 General College Physics II	4		С	H	
PHY 13022 General College Physics II Laboratory	1		С	39	Fulfills Kent Core Basic Sciences
Semester Nine: [15 Credit Hours]			A Antonia de Carino de Car	4/1000	
Requirement: apply for graduation				1	
ADED 42277 Topics in Secondary School Science	3		C		
ADED 42292 Field Work Practicum	3		C		
GEOG 31062 Fundamentals of Meteorology	3	SE	С	B	<u> 18 Indiana - Markan Andria de Markana de Atribia, desde de de la lación de la Argentia de Carana.</u> La composição de la composi de la composição de la composição de la composição de la composi
MATH 10041 Elementary Probability and Statistics or MATH 30011 Basic Probability and Statistics	3				
PHY 21430 Frontiers in Astronomy or PHY 24001 Astronomy	3		С	•	Fulfills Kent Core Basic Sciences
Semester Ten: [12 Gredit Hours] ADED 42357 Secondary Student Teaching	9		S	1021 201 E00 201 201 201 201 201 201 201 201 201 201	Offered in spring only
ADED 49525 Inquiry into Professional Practice	3		С		

Graduation Requirements Summary

	GIAGGEOTI	requirements t	semmon à					
	Minimum	Minimum Upper-	Minimum	Diversity Course	161-141 - 1-1-1-1	Mini	mum	i
صين	Total Hours	Division Hours	Kent Core Hours	Global / Domestic	Writing-Intensive	Major GPA	Overall GPA	
4	5 74	39	36	PHIL 11001 / SPED 23000	ADED 32142	2.6	2.75	

Kent Core Summary

Kent Core Categories	important Notes	Remaining Credit Hours
Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297	Enrollment based on placement test; a grade of C must be earned for both courses	6-8
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major MATH 11010	0
Humanities and Fine Arts (9 credit hours) Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts	3 credit hours are fulfilled in this major with PHIL 11001	6
Social Sciences (6 credit hours) Must be selected from two curricular areas	Fulfilled in this major PSYC 11762 and SOC 12050	0
Basic Sciences (6-7 credit hours) Must include one laboratory	Fulfilled in the major with BSCI 10110 and 10120; CHEM 10060 and 10062; GEOL 11040 and 11041	O
Additional (6 credit hours) Must be selected from two Kent Core categories	Fulfilled in this major with CHEM 10061 and MATH 12002	0

Special Notes for Degree/Major:

- 1. Pass Praxis II "Principles of Learning and Teaching" and specialty test.
- 2. Apply for teaching license (pick up licensure packet in 304 White Hall).



Roadmap: Integrated Science - Life Science - Bachelor of Science in Education

[EH-BSE-ISCI-LFSC]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a pass/fall grade. Visit www.kent.edu/catalog/kent-core for course list.

Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/catalog/diversity for course list.

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade. Visit www.kent.edu/catalog/wic for course list.

Upper-Division Requirement

Students must complete a minimum 39 upper-division (numbered 30000 to 49999) credit hours of coursework. Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.





Roadmap: Integrated Science - Physics - Bachelor of Science in Education [EH-BSE-ISCI-PHY]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies

Catalog Year: 2011-2012

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

Course Subject and Title

Credit Upper Min. Major Important Notes

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester One: [15 Credit Hours]	ener er sternet betær	on the secution as	A Complete Spirite and	and or his against	
CHEM 10060 General Chemistry I	4		G	21	
CHEM 10062 General Chemistry Laboratory I	1		C	12	Fulfills Kent Core Basic Sciences
MATH 11010 Algebra for Calculus	3				Fulfills Kent Core Mathematics and Critical Reasoning
PSYC 11762 General Psychology	3				Fulfills Kent Core Social Sciences
US 10097 Destination Kent State: FYE	1			<u> </u>	Not required of transfer students with 25 hours
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Two: [13 Credit Hours]	ALCOHOLD STATE		***************************************	Angur of Sand Contraction	
Requirement: pass Praxis I Reading (score 174), Writing (score 1	72) ar	d Wati	ıemati	cs (score 174)
CULT 29535 Education in a Democratic Society	3	1014	C		
CHEM 10061 General Chemistry II	4		С	188	
CHEM 10063 General Chemistry Laboratory II	-1		С		Fulfills Kent Core Basic Sciences
MATH 11022 Trigonometry	1-7)	С		
SOC 12050 Introduction to Sociology	3	7		<u> </u>	Fulfills Kent Core Social Sciences
Semester Three: [17 Credit Hours]	Sec. and Sec. Strategies (1927)	***************************************	daning and	denomina espera	
PHY 23101 General University Physics I	5		€ C		Fulfilis Kent Core Additional
CHEM 20481 Basic Organic Chemistry I	4	<u> </u>	С	188°	12 77 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2
MATH 12002 Analytical Geometry and Calculus I	5		Í	1	Fulfills Kent Core Additional
Kent Core Requirement	3			1	See Kent Core Summary on page 2
Semester Four: [17 Credit Hours]	landoren (1946)	(Maringa been grip)	Magazana ya ya ya sa		
MATH 12003 Analytic Geometry and Calculus II	5		С		
PHY 23102 General University Physics II	5		С	100	
BSCI 10110 Biological Diversity	4		С	1000 1000	Futfills Kent Core Basic Sciences
PHIL 11001 Introduction to Philosophy	3				Fulfills Kent Core Humanities and global diversity course requirement
Semester Five: [17 Credit Hours]	-	the second	-part-con-	-lyper-tree-p	
Requirement: minimum 2.75 cumulative GPA by end of te	rm		Migae	Maria	
BSCI 10120 Biological Foundations	4		С	T 88	Fulfills Kent Core Basic Sciences
EPSY 29525 Educational Psychology	3		1	***************************************	
GEOL 11040 Earth Dynamics	3			E	
GEOL 11041 Earth Dynamics Laboratory	1			-	Fulfills Kent Core Basic Sciences
PHY 21430 Frontiers in Astronomy or PHY 24001 Astronomy	3		С	8	
Kent Core Requirement	3	† — —			See Kent Core Summary on page 2
Semester Six: [15 Credit Hours]	description of Second	- North Control of the	or or other state of	ejamentoja se	
Requirement:: apply and be accepted for Advanced Study	/; mini	mum 2	.75 cu	mulati	ve GPA
PHY 30020 Intermediate Physics Laboratory	2		C		
GEOG 41073 Conservation of Natural Resource	3	89	С	B	
GEOL 11042 Earth History	3		С		Fulfills Kent Core Basic Sciences
GEOL 11043 Earth History Laboratory	1		С	189	
SPED 23000 Introduction to Exceptionalities	3		С		Fulfills domestic diversity course requirement
Kent Core Requirement	3		1	 	See Kent Core Summary on page 2



Roadmap: Integrated Science - Physics - Bachelor of Science in Education

[EH-BSE-ISCI-PHY]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Seven: [12 Credit Hours]		£1,000,000,000,000,000			
Requirement: apply for student teaching					
ADED 32142 Principles of Teaching Adolescents	3	#	С		Fulfills writing-intensive course requirement; offered in fall only
ITEC 19525 Educational Technology	3		С		
Cl 47330 Reading and Writing in Adolescence	3	188	С		
GEOG 31062 Fundamentals of Meteorology	3	E	С	103	
Semester Eight: [16 Credit Hours]		Andrews ver		de la constante	
ADED 32277 Teaching Science in Secondary Schools	3		Ç		Offered in spring only
BSCI 30140 Cell Biology	4	8	С	S	
BSCI 30156 Elements of Genetics	3	2	С	- 188	
MATH 10041 Elementary Probability and Statistics or MATH 30011 Basic Probability and Statistics	3				
PHY 36001 Introduction Modern Physics I	3	886	С		
Semester Nine: [13-14 Credit Hours]	81/11/11	*********	d annual resources		
Requirements: apply for graduation	. 1				
ADED 42277 Topics in Secondary School Science	3	188	С	1	
ADED 42292 Field Work Practicum	3	B	С		
CHEM 40567 Basic Concepts of Physical Chemistry	4	-	С	B	
PHY 32511 Electronics or PHY 36002 Applications of Modern Physics	3-4	**	С	8	
Semester Ten: [12 Credit Hours]		j	A		
ADED 42357 Secondary Student Teaching	9	1	S		
ADED 49525 Inquiry into Professional Practice	3	B	C		

Graduation Requirements Summary

Minimum	Minimum Upper-	Minimum	Diversity Course	\Abitina Intoncius	Mini	mum
/ Total Hours	Division Hours	Kent Core Hours	Global / Domestic	Writing-Intensive	Major GPA	Overall GPA
	39	36	PHIL 11001 / SPED 23000	ADED 32142	2.6	2.75

Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours	
Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297	Enrollment based on placement test; a grade of C must be earned for both courses	6-8	
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major MATH 11010	0	
Humanities and Fine Arts (9 credit hours) Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts	3 credit hours are fulfilled in this major with PHIL 11001	6	
Social Sciences (6 credit hours) Must be selected from two curricular areas	Fulfilled in this major PSYC 11762 and SOC 12050	0	
Basic Sciences (6-7 credit hours) Must include one laboratory	Fulfilled in the major with BSCI 10110 and 10120; CHEM 10060, 10061, 10062 and 10063; GEOL 11040 and 11041	0	
Additional (6 credit hours) Must be selected from two Kent Core categories	Fulfilled in this major with MATH 12002 and PHY 23101	0	

Special Notes for Degree/Major:

- Pass Praxis II "Principles of Learning and Teaching" and specialty test.
 Apply for teaching license (pick up licensure packet in 304 White Half).

Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a pass/fail grade. Visit www.kent.edu/catalog/kent-core for course list.





Roadmap: Integrated Science - Physics - Bachelor of Science in Education

[EH-BSE-ISCI-PHY]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/catalog/diversity for course list.

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade. Visit www.kent.edu/catalcg/wic for course list.

Upper-Division Requirement

Students must complete a minimum 39 upper-division (numbered 30000 to 49999) credit hours of coursework. Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.

Life Science/Chemistry - B.S.E. Program Requirements

Life Science/Chemistry semester by semester Roadmap

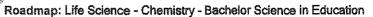
Type Legend: DD Diversity-Domestic; DG Diversity-Global; KAD Kent Core Additional; KBS Kent Core Basic Sciences; KCM Kent Core Composition; KFA Kent Core Fine Arts; KHU Kent Core Humanities; KIMC Kent Core Mathematics and Critical Reasoning; KSS Kent Core Social Sciences; WIC Writing Intensive

Please read the sections in the University Catalog on Kent Core, diversity and writing-intensive requirements.

pe .	Course	and a segregar and the segregar and a segment of	TIBLE	Credits
	US	10097	Destination Kent State: First Year Experience	1
ļ		ROGRAM R	EQUIREMENTS (60 credits) Courses count in major GPA	
pe :	Course	a congruence of the contract of the contract of	Title	Credits
)S	BSCI	10110	Biological Diversity	4
70	process a consumo	10120	Biological Foundations	4
	en e	30140	Cell Biology	4
		30156	Elements of Genetics	3
	:	30360	General Ecology	4
		40163	Organic Evolution	3
કેઇ	CHEM	10060	General Chemistry I	4
13		10061	General Chemistry II	4
38		10062	General Chemistry I Laboratory	1
38		10063	General Chemistry II Laboratory	1
		20481	Basic Organic Chemistry I	4
	:	30105	Analytical Chemistry I	3
	71	30284	Introduction to Biological Chemistry	4
	jaga, ann pagnya namu paga j	30301	Inorganic Chemistry (2
, and 1166-0	gramma a special con- c	30475	Organic Chemistry I Laboratory	1
38	GEOL	11040	Earth Dynamics	3
-77 38		11041	Earth Dynamics Laboratory	
:::: ::::\$	PHY	13001	General College Physics I	
35 35		13002	General College Physics II	A CONTRACTOR OF THE PARTY OF TH
38 38	i	13021	to distribution of the contribution of the con	
22 38	Çanı a mandığı ili dağırı	13022	General College Physics Laboratory I	
er or compare		and the second of the second o	General College Physics Laboratory II	Marine Commence of the contract of the contrac
l.		WAL PROGRA	AM REQUIREMENTS (73-credits))
pe	Course	not to	Title	Credits
/IC	ADED	32142	Principles of Teaching-Adolescents*	3
	· •·	32277	Teaching Science in Secondary Schools*	<u>3</u>
	· 	42277	Topics in Secondary School Science*	
	1	42292	Field Work Practicum*	3
	lee e diam	42357	Student Teaching*	
	d / = 1.45.45	49525	Inquiry Into the Profession*	3
	CI	47330	Reading and Writing in Adolescent/Adulthood*	3
	CULT	29535	Education in a Democratic Society*	3
	EPSY	29525	Educational Psychology*	. 3
	ITEC	19525	Educational Technology*	3
4C	MATH	11010	Algebra for Calculus*	
	And the state of the state of	11022	Trigonometry	/ /2 =
40		12002	Analytic Geometry and Calculus I	5
	1	10041	Elementary Probability and Statistics (3)	The state of the s
		1	or	3
		30011	Basic Probability and Statistics (3)	
-{(;	PHIL	11001	Introduction to Philosophy	3
Ğ	_ TIBL	11001	- muodostor to ringosophy	· 3
5\$	PSYC	11762	General Psychology	3
D.	- 7310	11/02	General raychology	3
SS	SOC	12050	Introduction to Socialogy	
Care and	300		Introduction to Sociology	; 3
D			The state of the s	om a service of the service of
	SPED	23000	Introduction to Exceptionalities	3
D	Acceptance and acceptance of the second	23000 Composition		6-8

^{*}A minimum C (2.0) grade must be earned. A minimum C (2.0) grade must be earned in ADED 32142 to fulfill the writing-intensive requirements





College of Education Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

27 (17 2 2 17 2 2 17 2 2 17 2 2 17 2 2 17 2 2 17 2 2 2 2	da 11 c (x)		100101	10000	O Cricaro a arriory graduatori.
Course Subject and Title	Credit Hours	Upper Dīv.	Min. Grade	Major GPA	Important Notes
Semester One: [17 Credit Hours]	A STATE OF THE PARTY OF THE PAR	COLUMN STATES	elitteelijate da		
BSCI 10110 Biological Diversity	4		C	103	Fulfills Kent Core Basic Sciences
MATH 11010 Algebra for Calculus	3	<u> </u>			Course may be waived based on placement; fulfills Kent Core Mathematics and Critical Reasoning
PHIL 11001 Introduction to Philosophy	3				Fulfills Kent Core Humanities
PSYC 11762 General Psychology	3				Fulfills Kent Core Social Sciences
US 10097 Destination Kent State: FYE	1				Not required of transfer student with 25 credits
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Two: [18 Gredit Hours] Requirement: successful completion of Praxis I in Reading	g (174	score	, Writis	ng (172	score) and Mathematics (174 score)
BSCI 10120 Biological Foundations	4		, C	*	Fulfills Kent Core Basic Requirements
CULT 29535 Education in Democratic Society	. 3		С	(1)	
MATH 11022 Trigonometry	\2 ⁻	20	С		Course may be waived based on placement
SOC 12050 Introduction to Sociology		7			Fulfills Kent Core Social Sciences
Kent Core Requirements	3				See Kent Core Summary on page 2
Kent Core Requirements	3			THE TOTAL THE PERSON	Oct Nett Oole Gallanary on page 2
Semester Three: [17 Credit Hours]					er en artente al l'Art de montre la chante de Modella Grande anno ante distribution de primer pour la Nection
Requirement: minimum 2.75 cumulative GPA by end of te	m	4		3 1	
CHEM 10060 General Chemistry I	4		C	26	Fulfills Kent Core Basic Sciences
CHEM 10062 General Chemistry I Laboratory	1	11	С	200	r timins hent cole basic sciences
MATH 12002 Analytical Geometry and Calculus I	5				Fulfills Kent Core Additional
GEOL 11040 Earth Dynamics	3		C	88	Fulfills Kent Core Additional
GEOL 11041 Earth Dynamics Laboratory	1		C	S	
Kent Core Requirements	3				See Kent Core Summary on page 2
Semester Four: [16 Credit Hours]		Variation of the	sanaturainaina	canada as mar	ent op militerature op de state op de state de state de state op de state op de state op de state op de state de state op de s
Requirement: apply for an be accepted to Advanced Stud	y by ei	nd of t	erm; m	inimur	n 2.75 cumulative GPA
CHEM 10061 General Chemistry II	4		С	88	∉ulfills Kent Core Basic Sciences
CHEM 10063 General Chemistry II Laboratory	1		C	- 18	
EPSY 29525 Educational Psychology	3		C	<u> </u>	<u>新文字画版,24亿字。 法已经经济</u>
BSCI 30156 Elements of Genetics	3	蜃	С	-	
PHY 13001 General College Physics i	4	***************************************			Fulfills Kent Core Basic Sciences
PHY 13021 General College Physics Laboratory	1				Total Control David Control
Semester Five: [18 Credit Hours]	San Baranan	aritaliari oca	i de la composition	en e Sancia	
Requirement: apply for student teaching				14.5	
ADED 32142 Principles of Teaching Adolescents	3	翻	С		Fulfills writing-intensive course requirement; Offered in fall only
ITEC 19525 Educational Technology	3		C		
CHEM 20481 Basic Organic Chemistry	4	188	С	-	
Cl 47330 Reading and Writing in Adolescence/Adulthood	3	辮	С		
PHY 13002 General College Physics II	4			188	Fulfills Kent Core Basic Sciences
PHY 13022 General College Physics II Laboratory	1	1	1	1 20	Commo rein Gold Danie Goldfloss



Roadmap: Life Science - Chemistry - Bachelor Science in Education

[EH-BSE-LSCM]

College of Education Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

Critical requirements are boldface in shaded areas.

- 11 STOCK TO GREAT CONTROL OF CO	1				
Course Subject and Title	Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Six: [18 Credit Hours]	rani raibura.				
ADED 32277 Teaching Science in Secondary Schools	3	20	Ç.		Offered in spring only
BSCI 40163 Organic Evolution	3	5	С	B	
CHEM 30284 Introduction to Biological Chemistry	4	8	С	SE	
CHEM 30301 Inorganic Chemistry I	2	-	С	1 No.	
MATH 10041 Elementary Probability and Statistics or MATH 30011 Basic Probability and Statistics	3				
SPED 23000 Introduction to Exceptionalities	3		С		Fulfills domestic Diversity course requirement
Semester Seven: [18 Credit Hours]		an victor (in the control of	No. of Concessions		
ADED 42277 Topics in Secondary Schools Science	3	16	С	17.4	
ADED 42292 Field Work Practicum	3		С		
BSCI 30140 Cell Biology	4	糖	C	B	
BSCI 30360 General Ecology	4	886	C	-	
CHEM 30105 Analytical Chemistry I	3	III	С	E	
CHEM 30475 Organic Chemistry Laboratory	1	B	С	羅	
Semester Eight: [12 Credit Hours]		, e		e magazina gargi era a sa	ikus saan kanna kanna kanna kanna ka magama pilan dara kahan marak pengan sa mengan bahas ini bagan membanyi s Tangan kanna k
Requirement: apply for graduation	:		· ·	F6 1	
ADED 42357 Student Teaching	9		S		The state of the s
ADED 49525 Inquiry into Professional Practice	3	100	C		

Graduation Requirements Summary

		.coganianites a	PARILITY Y				
**********	Minimum	Minimum Upper-	Minimum	Diversity Course	Writing-Intensive	Mini	กนฑ
	Total Hours	Division Hours	Kent Core Hours	Global / Domestic	varining-interisive	Major GPA	Overall GPA
B	< \y2\	39	36	PHIL 110012 / SPED 23000	ADED 32142	2.6	2.75

Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours	
Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297	Enrollment based on placement test; a grade of C must be earned for both courses	6-8	
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major MATH 11010	0	
Humanities and Fine Arts (9 credit hours) Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts	3 credit hours are fulfilled in this major with PHIL 11001	6	
Social Sciences (6 credit hours) Must be selected from two curricular areas	Fulfilled in this major PSYC 11762 and SOC 12050	0	
Basic Sciences (6-7 credit hours) Must include one leboratory	Fulfilled in the major with BSCI 10110 and 10120; CHEM 10060, 10061, 10062 and 10063; PHY 13001 and 130021	0	
Additional (6 credit hours) Must be selected from two Kent Core categories	Fulfilled in this major with GEOL 11040 and MATH 12002	0	

Notes on Licensure:

- 1. Complete Praxis II "Principles of Learning and Teaching grades 7-12" (passing score 165) and Praxis II specially test.
- 2. Apply for teaching license (pick up licensure packet in 304 While Hall).

Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a passifail grade. Visit www.kent.edu/catalog/kent-core for course list.

Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/cafalog/diversity for course list.



Roadmap: Life Science - Chemistry - Bachelor Science in Education

[EH-BSE-LSCM] College of Education Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade. Visit www.kent.edu/catalog/wic for course list.

Upper-Division Requirement

Students must complete a minimum 39 upper-division (numbered 30000 to 49999) credit hours of coursework. Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.

Life Science - B.S.E. Program Requirements

Life Science semester by semester Roadmap

Type Legend: DD Diversity-Domestic; DG Diversity-Global; KAD Kent Core Additional; KBS Kent Core Basic Sciences; KCM Kent Core Composition; KFA Kent Core Fine Arts; KMU Kent Core Humanities; KMC Kent Core Mathematics and Critical Reasoning; KSS Kent Core Social Sciences; WIC Writing Intensive

Please read the sections in the University Catalog on Kent Core, diversity and writing-intensive requirements.

ype	Course		Title	Credits
	US	10097	Destination Kent State: First Year Experience	1
II.	MAJOR		EQUIREMENTS (58 credits) Courses count in major GPA	and the second second
уре	Course		Title	Credits
es. Es	BSCI	10110	Biological Diversity	4
(AD		10120	Biological Foundations	
		30140	Cell Biology	4
		30156	Elements of Genetics	
	ووالرزاري والمتحسسة	30360		
		the first of the fact that the contract of	General Ecology	4
		40163	Organic Evolution	3
GIS.	CHEM	10060	General Chemistry I	4
985_	alaman wan katawa	10061	General Chemistry II	4
SDS.		10062	General Chemistry I Laboratory	
KBS	ili. Historia	10063	General Chemistry II Laboratory	1
		20481	Basic Organic Chemistry I	4
	damenta	30284	Introduction to Biological Chemistry	4
œs	GEOL	11042	Earth History	3
œs		11043	Earth History Laboratory	1
æs	PHY	13001	General College Physics I	4
(BS		13002	General College Physics II	4
(BS	endere meneral meneral entre se y a ve	13021	General College Physics Laboratory I	1
188	To deferring comment of the con-	13022	General College Physics Laboratory II	4
	Chance fi	om the follow		······································
	BSCI	20560	invertebrate Zoology (4)	
	5001	30275		MARKET CONTRACTOR OF THE PROPERTY OF THE PROPE
	digital and the second second	titlet fålle førtiske ender meg energer	Local Flora (4)	
	J	30518	Vertebrate Anatomy (4)	National programmes and the commence of the
	p	30580	Entomology (4)	
	ili. Para and makanan ang ka	30582	Ornithology (4)	ili dengan senaran salah Propinsi Salah Ja
	James a magazia	40364	Limnology (4)	ing to store and a service of the following and
1517	and a community of the contract of the	40556	Vertebrate Zoology (4)	
III.	ADDITIO	VAL PROGRA	WI REQUIREMENTS (78-enedits) *) 4 (」 その 下写	
ype	Course		Title	
600-		and the commence of the second	ner and COC contact. Observe a contact of the conta	Credits
AIC.	ADED	32142	Principles of Teaching Adolescents*	Credits 3
MC.	ADED	32142 32277	mark and the first and and a transfer of the first and the second of the	
MC.	ADED	man of Charles Sanger and stock for a females	Principles of Teaching Adolescents* Teaching Science in Secondary Schools*	3
erc.	ADED	32277 42277	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science*	3 3 3
PRC	ADED	32277 42277 42292	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum*	3 3 3
MC	ADED	32277 42277 42292 42357	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching*	3 3 3 3 9
MC		32277 42277 42292 42357 49525	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession*	3 3 3 3 9
FING	C	32277 42277 42292 42357 49525 47330	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood*	3 3 3 9 3
ANC .	CICULT	32277 42277 42292 42357 49525 47330 29535	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society*	3 3 3 9 3 3
THE CONTRACTOR	CI CULT EPSY	32277 42277 42292 42357 49525 47330 29635 29525	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology*	3 3 3 3 3 3 3
	CI CULT EPSY ITEC	32277 42277 42292 42357 49525 47330 29535 29525	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology*	3 3 3 3 9 9 3 3 3 3
AAC GAO	CI CULT EPSY	32277 42277 42292 42357 49525 47330 29535 29525 19525	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry Into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus*	3 3 3 9 3 3 3 3 3
W	CI CULT EPSY ITEC	32277 42277 42282 42357 49525 477330 28635 29626 19625 11010 11022	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry Into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry	3 3 3 9 3 3 3 3 3
	CI CULT EPSY ITEC	32277 42277 42292 42357 49525 477330 29535 29525 19525 11010 11022 12002	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I	3 3 3 9 3 3 3 3 3
W	CI CULT EPSY ITEC	32277 42277 42282 42357 49525 477330 28635 29626 19625 11010 11022	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Elementary Probability and Statistics (3)	9 3 3 9 9 3 3 3 3 3
W	CI CULT EPSY ITEC	32277 42277 42292 42357 49525 47330 29635 29635 19625 11010 11022 12002	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Elementary Probability and Statistics (3) or	3 3 3 9 3 3 3 3 3
QVC (AD	CI CULT EPSY ITEC	32277 42277 42292 42357 49525 477330 29535 29525 19525 11010 11022 12002	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Elementary Probability and Statistics (3)	9 3 3 9 9 3 3 3 3 3
GAC CHU	CI CULT EPSY ITEC MATH	32277 42277 42292 42357 49625 47330 29635 29626 19625 11010 11022 12002 10041	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Elementary Probability and Statistics (3) or Basic Probability and Statistics (3)	9 3 3 3 3 3 3 3 3 3 3
GAD CAD	CI CULT EPSY ITEC	32277 42277 42292 42357 49525 47330 29635 29635 19625 11010 11022 12002	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Elementary Probability and Statistics (3) or	9 3 3 9 9 3 3 3 3 3
(AD CAD CHU DG CSS	CI CULT EPSY ITEC MATH	32277 42277 42282 42357 48525 47330 29635 29525 1000 11022 12002 10041 30011	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Elementary Probability and Statistics (3) or Basic Probability and Statistics (3) Introduction to Philosophy	3 3 3 3 3 3 3 3 3 3 3 3 3
GAD GAD GAD GAD GAD GAD GAD GAD	CI CULT EPSY ITEC MATH	32277 42277 42292 42357 49625 47330 29635 29626 19625 11010 11022 12002 10041	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Elementary Probability and Statistics (3) or Basic Probability and Statistics (3)	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
GAD GAD GAS GOS GOS GOS GOS GOS GOS GOS	CJ CULT EPSY ITEC MATH PHIL PSYC	32277 42277 42292 42357 49625 47330 29626 19625 11010 11022 12002 10041 30011 11001	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Elementary Probability and Statistics (3) or Basic Probability and Statistics (3) Introduction to Philosophy General Psychology	9 3 3 9 9 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
GAD GAD GAD GAS GO GO GAS GO GO GAS GO GO GO GO GO GO GO GO GO G	CI CULT EPSY ITEC MATH PHIL PSYC	32277 42277 42282 42357 48525 47330 29635 29525 1000 11022 12002 10041 30011	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Elementary Probability and Statistics (3) or Basic Probability and Statistics (3) Introduction to Philosophy	3 3 3 3 3 3 3 3 3 3 3 3 3
GAD GAD GAS GOS GOS GOS GOS GOS GOS GOS	CJ CULT EPSY ITEC MATH PHIL PSYC	32277 42277 42292 42357 49625 47330 29626 19625 11010 11022 12002 10041 30011 11001	Principles of Teaching Adolescents* Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Profession* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Elementary Probability and Statistics (3) or Basic Probability and Statistics (3) Introduction to Philosophy General Psychology	9 3 3 9 9 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

*A minimum C (2.0) grade must be earned. A minimum C (2.0) grade must be earned in ADED 32142 to turnil the writing-intensive requirement.



Roadmap: Life Science - Bachelor of Science in Education

[EH-BSE-LFSC]
College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester One: [17 Credit Hours]		1	1	<u> </u>	
BSCI 10110 Biological Diversity	4	, derive	C.	81	Fulfills Kent Core Basic Sciences
MATH 11010 Algebra for Calculus	3				Course may be waived based on placement; fulfills Kent Core Mathematics and Critical Reasoning
PSYC 11762 General Psychology	3				Fulfills Kent Core Social Sciences
US 10097 Destination Kent State: FYE	1		1		Not required of transfer students with 25 credits
Kent Core Requirements	3				0 - 1/ 0
Kent Core Requirements	3				See Kent Core Summary page 2
Semester Two: [18 Credit Hours]	***************************************				
Requirement: successful completion of Praxis I in Read	ing (174	score), Writi	ng (172	2 score) and Mathematics (174 score)
BSCI 10120 Biological Foundations	4	Τ	C	8	Fulfills Kent Core Basic Sciences
CULT 29535 Education in a Democratic Society	3		Ç	1 1 ;	Mariants dans la la calcaga de la colonia.
MATH 11022 Trigonometry	SE	3	С		Course may be waived based on placement
SOC 12050 Introduction to Sociology	3				Fulfills Kent Core Social Sciences
SPED 23000 Introduction to Exceptionalities	3		С		Fulfills domestic diversity course requirement
Kent Core Requirement	3				See Kent Core Summary page 2
Semester Three: [17 Credit Hours]					e Chapter in the production and in the contraction of the contraction and interest in the contraction of the child for the child forechild for the child for the child for the child for the child fo
Requirement: minimum 2.75 cumulative GPA by end of	term			10	
CHEM 10060 General Chemistry I	4		С		E. ISHE V. at O Deals Calestia
CHEM 10062 General Chemistry I Laboratory	1	1	С		Fulfills Kent Core Basic Sciences
MATH 12002 Analytical Geometry and Calculus I	5		T A		Fulfills Kent Gore Additional
GEOL 11042 Earth History	3		С	88	Fulfiils Kent Core Additional
GEOL 11043 Earth History Laboratory	1		С	**	
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Four: [18 Credit Hours]					
Requirement: apply for and be accepted to Advanced S	itudy by	end of	term;	minim	um 2.75 cumulative GPA
CHEM 10061 General Chemistry II	4		С		Fulfills Kent Core Basic Sciences
CHEM 10063 General Chemistry II Laboratory	1		С	188	Puttins Rent Cure basic Sciences
EPSY 29525 Educational Psychology	3	2 a L	С		
BSCI 30156 Elements of Genetics	3	688	С	192	
PHIL 11001 Introduction to Philosophy	3				Fulfills Kent Core Humanities and global diversity course requirement
BSCI Organismal Elective	4		С	-	
Semester Five: [18 Credit Hours]			,		
Requirement: apply for student teaching	and the registress proceedings	2004-2004-200	,		
ADED 32142 Principles of Teaching Adolescents	. 3		С		Fulfills writing-intensive course requirement; offered in fall only
ITEC 19525 Instructional Technology	3	1	С		
CHEM 20481 Basic Organic Chemistry I	4	1	С		all to a first contract to the second of the
Cl 47330 Reading and Writing in Adolescence/ Adulthood	3	186	C		
PHY 13001 General College Physics I	4	1		III	Fulfills Kent Core Basic Sciences
THE COURT OF THE C	+			 	~



PHY 13021 General College Physics | Laboratory



Roadmap: Life Science - Bachelor of Science in Education

[EH-BSE-LFSC]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies

Catalog Year: 2011-2012

Critical requirements are boldface in shaded areas.

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Six; [15 Credit Hours]			And day to secure		
ADED 32277 Teaching Science in Secondary Schools	-3		:BC	31.84P.V	Offered in spring only
BSCI 40163 Organic Evolution	3	181	С	₩.	
CHEM 30284 Introduction to Biological Chemistry	4	189	C	藤	
PHY 13002 General Physics I	4			E	Euglis Van Our Britania
PHY 13022 General Physics I Laboratory	1			#	Fulfills Kent Core Basic Sciences
Semester Seven: [17 Credit Hours]	Assessment of the Contract of	The State of the S	A Charles Anna Anna Anna Anna Anna Anna Anna Ann	Contractor Co.	
Requirement: apply for graduation		:			
ADED 42277 Topics in Secondary School Science	3	-	C		
ADED 42292 Field Work Practicum	3	100	С		
BSCI 30140 Cell Biology	4	102	С	權	
BSCI 30360 General Ecology	4	H	C	18	
MATH 10041 Elementary Probability and Statistics or MATH 30011 Basic Probability and Statistics	3				
Semester Eight: [12 Credit Hours]					
Requirement: apply for graduation			15.2		
ADED 42357 Student Teaching	9	B .	S	T	
ADED 49525 Inquiry into Professional Practice	3		С	. 22. %	

Graduation Requirements Summary

	Minimum	Minimum Upper-	Minimum	Diversity Course	Writing-Intensive	Minimum		
	Total Hours	Division Hours	Kent Core Hours	Global / Domestic	vviitii ig-iriterisive	Major GPA	Overall GPA	
2	385	39	36	PHIL 11001 / SPED 23000	ADED 32142	2.6	2.75	

Kent-Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297	Enrollment based on placement test; a grade of C must be earned for both courses	6-8
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major MATH 11010	0
Humanities and Fine Arts (9 credit hours) Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts	3 credit hours are fulfilled in this major with PHIL 11001	- 6
Social Sciences (6 credit hours) Must be selected from two curricular areas	Fulfilled in this major PSYC 11762 and SOC 12050	0
Basic Sciences (6-7 credit hours) Must include one laboratory	Fulfilled in the major with BSCI 10110 and 10120; GEOL 11041; PHY 13001, 13002, 13021, 13022; and CHEM 10060, 10051, 10062, 10063	0
Additional (6 credit hours) Must be selected from two Kent Core categories	Fulfilled in this major with GEOL 11042 and MATH 12002	0

Note 1: Biological Science Organismal Elective, choose from the following (4):

		2.0 000 000 1	TIMPs Sala	<u> </u>
BSCI 20560 Invertebrate Zoology	4	BSCI 30582 Omithology	7,	4
BSCI 30275 Local Flora	. 4	BSCI 40364 Limnology	14. _{4.}	4
BSCI 30518 Vertebrate Anatomy	4	BSCI 40556 Vertebrate Zoology		. 4
BSCI 30580 Entomology	4		and Colored	

Notes on Licensure:

- Complete Praxis II "Principles of Learning and Teaching grades 7-12" (passing score 165) and Praxis II specialty test.
- 2. Apply for teaching license (pick up licensure packet in 304 White Hall).

Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a pass/fail grade. Visit www.kent.edu/catalog/kent-core for course list.



Roadmap: Life Science - Bachelor of Science in Education

[EH-BSE-LFSC]

College of Education, Health and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/catalog/diversity for course list.

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade. Visit www.kent.edu/catalog/wic for course list.

Upper-Division Requirement

Students must complete a minimum 39 upper-division (numbered 30000 to 49999) credit hours of coursework. Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.

Physical Science - B.S.E. Program Requirements

Physical Science semester-by-semester Roadmap

Type Legend: DD Diversity-Domestic; DG Diversity-Global; KAD Kent Core Additional; KBS Kent Core Basic Sciences; KCM Kent Core Composition; KFA Kent Core Fine Arts; KHU Kent Core Humanities; KMC Kent Core Mathematics and Critical Reasoning; KSS Kent Core Social Sciences; WIC Writing Intensive

Please read the sections in the University Catalog on Kent Core, diversity and writing-intensive requirements.

/pe	Course	MANAGAR Kasar Sandan manakas masar Asa	Title	Credits
	US	10097	Destination Kent State: First Year Experience	1
II.	MAJOR P	ROGRAM RE	QUIREMENTS (55 credits) Courses count in major GPA	
уре	Course		Title	Credits
œ	BSCI	10120	Biological Foundations	4
œs	CHEM	10060	General Chemistry I	4
(35		10061	General Chemistry II	4
付金		10062	General Chemistry I Laboratory	1
(88		10063	General Chemistry II Laboratory	1
		20481	Basic Organic Chemistry I	4
		30151	Analytical Chemistry I	3
		30284	Introduction to Biological Chemistry	4
in the traderia	The same of the second second second	30301	Inorganic Chemistry I	2
A-1-1-10 mm	region money as a contract for the contract of	40567	Basics of Physical Chemistry	4
***************************************	GEOG	31062	Fundamentals of Meteorology	3
(AD	PHY	23101	General University Physics I	5
(BS		23102	General University Physics II	5
Contraction of	ert, error troping og til til men men særer	30020	Intermediate Physics Laboratory	2
		36001	Introduction to Modern Physics	3
		21430	Frontiers in Astronomy (3)	·
KBS	i i	. 21400	: Of	3
		24001	Astronomy (3)	•
	/ · · · · · · · · · · · · · · · · · · ·	32511	Electronics (4)	
	:		· or	3-4
	:	36002	Applications of Modern Physics (3)	
111.	ADDITION	IAL PROGRAM	W REQUIREMENTS (75 oredits) 760 (-0); 7-5	
ype	Course		Title	Credits
		and the state of t		0100760
MC	ADED	32142	Principles of Teaching Adolescents*	3
MC	ADED	32142 32277	Principles of Teaching Adolescente* Teaching Science in Secondary Schools*	and against any house had not not not and all a come
AC.	ADED			3
WC.	ADED	32277	Teaching Science In Secondary Schools*	3 3
	ADED	32277 42277	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum*	3 3
V(4C)	ADED	32277 42277 42292	Teaching Science in Secondary Schools* Topics in Secondary School Science*	3 3 3 3
WAS	ADED	32277 42277 42292 42357	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice*	3 3 3 3
WAS	- CI	32277 42277 42292 42357 49525 47330	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood*	3 3 3 3 9 3
VAC	CI CULT	32277 42277 42292 42357 49525 47330 29535	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society*	3 3 3 3
	CI CULT EPSY	32277 42277 42292 42357 49525 47330 29535 29525	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology*	3 3 3 3 9 3 3 3
	CI CULT EPSY TEC	32277 42277 42292 42357 49525 47330 29535 29525 19525	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology*	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
WC.	CI CULT EPSY	32277 42277 42292 42367 49525 47330 29635 29625 19525	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus*	3 3 3 3 9 3 3 3
OVC.	CI CULT EPSY TEC	32277 42277 42292 42357 49525 47330 29535 29525 19525 11010 11022	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry	3 3 3 3 9 9 3 3 3 3 3 3
	CI CULT EPSY TEC	32277 42277 42292 42357 49525 47330 29535 29525 19525 11010 11022 12002	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I	3 3 3 3 3 3 3 3 3 3
GWC .	CULT CULT EPSY ITEC MATH	32277 42277 42292 42357 49525 47330 29535 29525 19525 11010 11022 12002 12003	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus II	3 3 3 3 9 9 3 3 3 3 3 3 5 6 6
GWC KAD	CI CULT EPSY TEC	32277 42277 42292 42357 49525 47330 29535 29525 19525 11010 11022 12002	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I	3 3 3 3 3 3 3 3 3 3
gyc Kao Chu DG	CI CULT EPSY ITEC MATH	32277 42277 42292 42357 49525 47330 29535 29625 19525 11010 11022 12002 12003	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus II Introduction to Philosophy	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
GMC KAD CHU DG KSS	CULT CULT EPSY ITEC MATH	32277 42277 42292 42357 49525 47330 29535 29525 19525 11010 11022 12002 12003	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus II	3 3 3 3 9 9 3 3 3 3 3 3 5 6 6
GAC CHU DG CSS DD	CI CULT EPSY ITEC MATH PHIL	32277 42277 42292 42357 49525 47330 29535 29525 11010 11022 12002 12003 11001	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Analytic Geometry and Calculus II Introduction to Philosophy General Psychology	3 3 3 9 9 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
GMC KAD CHU DG KSS	CI CULT EPSY ITEC MATH	32277 42277 42292 42357 49525 47330 29535 29625 19525 11010 11022 12002 12003	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus II Introduction to Philosophy	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
GMC KAD CHU DG KSS DD KSS DD	CI CULT EPSY TTEC MATH PHIL PSYC SOC	32277 42277 42292 42357 49525 47330 29535 29525 19625 11010 11022 12002 12003 11001 11762 12050	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Introduction to Philosophy General Psychology Introduction to Sociology	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
GAC CAD CAU DG KES DD	CI CULT EPSY ITEC MATH PHIL PSYC SOC SPED	32277 42277 42292 42357 49525 47330 29535 29525 11010 11022 12002 12003 11001	Teaching Science in Secondary Schools* Topics in Secondary School Science* Field Work Practicum* Secondary Student Teaching* Inquiry into the Professional Practice* Reading and Writing in Adolescent/Adulthood* Education in a Democratic Society* Educational Psychology* Educational Technology* Algebra for Calculus* Trigonometry Analytic Geometry and Calculus I Analytic Geometry and Calculus II Introduction to Philosophy General Psychology	3 3 3 9 9 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

^{*}A minimum C (2.0) grade must be earned. A minimum C (2.0) grade must be earned in ADED 32142 to fulfill the writing-intensive requirement.



Roadmap: Physical Science - Bachelor of Science in Education [EH-BSE-PHSC]

College of Education, Health, and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year: 2011-2012

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

	0-20	110000	Min.	Admin .	
Course Subject and Title	Hours	Upper Div.	Grade	Major GPA	Important Notes
Semester One: [18 Credit Hours]	erina mentre in ter		- all and a still stan		
CHEM 10060 General Chemistry I	4	e . d Alone (1 d . g.)	С	iii.	
CHEM 10062 General Chemistry Laboratory I	1		С	富	Fulfills Kent Core Basic Sciences
MATH 11010 Algebra for Calculus	3				Fulfills Kent Core Mathematics and Critical Reasoning; may be waived by passing the placement exam
PSYC 11762 General Psychology	3				Fulfills Kent Core Social Sciences and domestic diversity requirement
US 10097 Destination Kent State: FYE	1				Not required of transfer students with 25 credits
Kent Core Requirements	3				Son Kont Com Summers on page 2
Kent Core Requirements	3				See Kent Core Summary on page 2
Semester Two: [16 Credit Hours]					
Requirement: successful completion of Praxis I Reading (score	174), V	Vriting	(score	172) and Mathematics (score 174)
CULT 29535 Education in a Democratic Society	3		C		
CHEM 10061 General Chemistry II	4		С	■	Fulfills Vant Care Davis Calanas
CHEM 10063 General Chemistry Laboratory II	1		С	2	Fulfills Kent Core Basic Sciences
MATH 11022 Trigonometry	X	3	5		
SOC 12050 Introduction to Sociology	3			i	Fulfills Kent Core Social Sciences
Kent Core Requirements	3		T		See Kent Core Summary on page 2
Semester Three: [16 Credit Hours]			7. · · · · · · · · · · · · · · · · · · ·	Sympotopic distribution	
Requirement: minimum cumulative 2.75 GPA by end of te	rm; mi	nimun	C gra	de and	2.6 GPA required in content area coursework
EPSY 29525 Educational Psychology	3	T	·c		
MATH 12002 Analytic Geometry and Calculus I	5				F. 150 - 16 - 16 - 17 - 17 - 17 - 17 - 17 - 17
PHY 23101 General University Physics I	5		С		Fulfills Kent Core Additional
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Four: [18 Credit Hours]					
Requirement: apply and be accepted for Advanced Study.	2.75 n	ninimu	ımi cun	ıulative	GPA required
PHY 23102 General University Physics II	5		C	- B	
BSCI 10120 Biological Foundations	4		С	. 🐯	Fulfills Kent Core Basic Sciences
CHEM 20481 Basic Organic Chemistry I	4		С	188	
MATH 12003 Analytical Geometry and Calculus II	5		С		
Semester Five: [18 Credit Hours]			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Requirement: apply for student teaching					
ADED 32142 Principles of Teaching Adolescents	3	B	С		Fulfills writing intensive requirements; offered in fall only
ITEC 19525 Educational Technology	3		С		
CHEM 30105 Analytical Chemistry I	3	#	C	85	
CI 47330 Reading and Writing in Adolescence	3	-	С		
PHIL 11001 Introduction to Philosophy	3				Fulfills Kent Core Humanities
000000011111111111111111111111111111111		1	7	1	

C

Fulfills domestic diversity requirement

SPED 23000 Introduction to Exceptionalities



Roadmap: Physical Science - Bachelor of Science in Education

EH-BSE-PH

College of Education, Health, and Human Services School of Teaching, Learning and Curriculum Studies Catalog Year. 2011-2012

Critical requirements are boldface in shaded areas.

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Six: [17 Credit Hours]	day or to the second	brownson		in and the same	
ADED 32277 Teaching Science in Secondary Schools	3	18	C		
CHEM 30301 Inorganic Chemistry I	ż	122	C	189	
CHEM 30284 Introduction to Biological Chemistry	4	B	C	25	
PHY 21430 Frontiers in Astronomy or PHY 24001 Astronomy	3		С	#	Fulfills Kent Core Basic Sciences
PHY 30020 Intermediate Physics Laboratory	2	籔	C	*	Fuifills writing-intensive course requirement
PHY 36001 Introduction to Modern Physics	3	202	С	瞪	
Semester Seven: [16-17 Credit Hours]					
Requirements: apply for graduation			J. C	4113	
ADED 42277 Topics in Secondary School Science	3	B#	С		
ADED 42292 Field Work Practicum	3		c		
CHEM 40567 Basics of Physical Chemistry	4	- 20	С	156	
GEOG 31062 Fundamentals of Meteorology	3	-	С	18	
PHY 32511 Electronics or PHY 36002 Applications of Modern Physics	3-4	188	С	8	
Semester Eight: [12 Credit Hours]					
ADED 42357 Secondary Student Teaching	9	-	S		
ADED 49525 Inquiry into Professional Practice	3		С	142	

Graduation Requirements Summary

Minimum	Minimum Upper-	Minimum	Diversity Course	Writing-Intensive	Minimum		
Total Hours	Division Hours	Kent Core Hours	Global / Domestic	AAUTIII Ü-II IGII 21AG	Major GPA	Overall GPA	
2 131	39	36	SPED 23000 / PHIL 11001	ADED 32142	2.6	2.75	

Kent-Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297	Enrollment based on placement test; minimum grade of C must be earned in both courses	6-8
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major with MATH 11010	0
Humanities and Fine Arts (9 credit hours) Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts	3 credit hours fulfilled in this major with PHY 11001	6
Social Sciences (6 credit hours) Must be selected from two curricular areas	Fulfilled in this major with PSYC 11762 and SOC 12050	0
Basic Sciences (6-7 credit hours) Must include one laboratory	Fulfilled in this major with CHEM 10060 and 10062; and PHY 23101	0
Additional (6 credit hours) Must be selected from two Kent Core categories	Fulfilled in this major with MATH 12002; and PHY 21430 or 24001	0

Note on Licensure:

- Successful complete Praxis II "Principles of Learning and Teaching" and Praxis II specialty test "Chemistry-Content Knowledge" (passing score 152) and "Physics-Content Knowledge" (passing score 132) by the end of second semester.
- Apply for teaching license (pick up licensure packet in 304 White Hall).

Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a passifall grade. Visit www.kent.edu/catalog/kent-core for course list.

Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/catalog/diversity for course list.

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Roadmap: Physical Science - Bachelor of Science in Education

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Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade. Visit www.kent.edu/catalog/wic for course list.

Upper-Division Requirement

Students must complete a minimum 39 upper-division (numbered 30000 to 49999) credit hours of coursework, Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.

AUGUSTINE, SUSAN

From:

DONNELLY, LISA A.

Sent:

Friday, November 04, 2011 11:23 AM

To:

AUGUSTINE, SUSAN

Subject:

FW: Trigonometry

Hi Susan,

Bill sent me this email regarding the curriculum changes in the math department (trigonometry) that affect the 5 ADED majors (see below). I support adding the additional hour on to each of the programs since the trig class is moving from 2 to 3 credit hours. Please let me know whatever I need to do.

Thanks, Lisa Donnelly

From: KIST, WILLIAM

Sent: Thursday, November 03, 2011 5:15 PM

To: DONNELLY, LISA A. Subject: FW: Trigonometry.

Hi, Lisa:

This message just arrived in my mailbox. The bad news is that the deadline to make this change so that it would appear on the Fall, 2012 requirement sheets is November 10. The good news is that Susan has really streamlined the process so there isn't much for you to do except to tell her that you do want to reduce your general electives by one credit. It's up to you, but I wanted to get this to you as quickly as possible.

See you tomorrow!

Bill

From: AUGUSTINE, SUSAN

Sent: Thursday, November 03, 2011 4:44 PM

To: KIST, WILLIAM, BUCKEYE, LAURA Cc: ZARGES, KATHY; ARHAR, JOANNE

Subject: Trigonometry

The following changes were made to MATH 11022 Trigonometry:

- MATH 11010 is now a prereq
- increase of credits from 2 to 3

Until you make revisions to your program requirements, students will have this additional credit in their curriculum. I have identified the following programs which this may impact:

- Earth Science
- Integrated Science
- Life Science
- Life Science/Chemistry
- Physical Science
- IHS Health Sciences

If your program has general electives, the simple fix would be to reduce by 1 credit. If MATH 11010 is a **requirement** (not an elective) and if MATH 11010 *Algebra for Calculus* is not already in your requirements, it must be added. Although it is getting late, there is still time for us to get these through the committees for Fall 2012. We will have to work fast, however and get the paperwork finished by next week. If you review your requirements and let me know how you want to handle this 1 credit, I will help you whip up the paperwork.

~Susan

Susan Augustine
Kent State University
Curriculum Coordinator
College of Education, Health, & Human Services
409 White Hall
330-672-2187
FAX: 330-672-3549
saugusti@kent.edu

TLC CURRICULUM COMMITTEE MEETING

Thursday, November 17, 2011

9am 403 WTH

Davison Mupinga opened the meeting.

Attending: Takahiro Sato, Sandra Pech, Todd Hawley, Lettie Gonzalez, Bette Brooks, Michelle Norris, and Connie Collier. Lynda Paul taking minutes.

Guest: Karen Tollafield (representing Bill Kist)

Minutes from September 22, 2011 meeting were unanimously approved.

- Karen presented requirement changes to ADED BS degree in Integrated Language Arts. Bette moved for approval of changes. Todd seconded. After some discussion, motion unanimously approved.
- 2. Karen also presented program revisions to the Integrated Math/Science courses. Bette moved the proposal be accepted. Todd seconded. Unanimously approved with requested changes.
- 3. As Social Studies Coordinator, Todd presented and motioned for approval the Integrated Social Studies program revisions. Bette seconded. After discussion, motion unanimously approved.
- 4. Connie Collier presented inactivating PEP undergraduate certificate courses due to certificate programs going to minor areas. Bette motioned, Sandra seconded. After some discussion, there was unanimous approval to accept these changes at the undergraduate level ONLY and to address the graduate level courses and course fees at the CCC for continued evaluation.
- 5. Lettie proposed changing PEB Special Topics courses and course fees. Todd motioned, Bette seconded, after some discussion the proposal was unanimously approved.
- 6. Todd presented the following courses: CI 67311, 67316, 67338, 67345, 77311, 77316, 77338, and 77345 for inactivation due to low enrollment. Todd motioned, Bette second. Following ensuing discussions, the proposal was unanimously approved. The committee felt that if it becomes necessary to bring back any of these courses, this could be done as focused Individual Investigations.

7. Michelle Norris presented three workshops: 1) Helen Gay Fawcett's "Making Family Involvement Work for Students, Parents and Schools." Bette motioned, Sandra seconded and unanimously approved pending the addition into the proposal of more detail on out-of-class activities and text assignments; 2) Kathryn Knapp's "Family History for Teachers, Counselors, and Social Workers." Sandra motioned, Todd second. Approval was unanimous. 3) Marlo Mornasky-Miller and Donnamarie Polak "Using the Author's Craft in Picture Books to Inspire Student Writing." Bette moved, Todd seconded. Approval was unanimous pending revising of the marketing plan for attracting audience (identify age range and specificity of grade levels) and giving examples of authors and their books to be used in the workshop).

Michelle will meet with Helen Gay Fawcett and Marlo Mornasky-Miller and Donnamarie Polak about discussed revisions.

This meeting adjourned 10:15 am.

Next meeting – will be scheduled later in the semester, if there is material to review.

Respectfully submitted by Lynda Paul