

Biological Engineering: Cellular and Biomolecular Engineering

<https://ag.purdue.edu/oap/Pages/major.aspx>

129 credits required for graduation

Credits Course number Course Title

Departmental/Program Major Courses (129 credits)

Required Major Courses (45 credits)

_____	4	ABE 20100	Thermodynamics of Biological Systems I
_____	3	ABE 20200	Thermodynamics of Biological Systems II
_____	1	ABE 29000	Sophomore Seminar
_____	3	ABE 30100	Numerical and Computational Modeling in Biological Engineering
_____	3	ABE 30300	Applications of Physics and Chemistry to Biological Processes
_____	3	ABE 30400	Bioprocess Engineering Laboratory
_____	3	ABE 30700	Momentum Transfer in Food and Biological Systems
_____	3	ABE 30800	Heat and Mass Transfer in Food and Biological Systems
_____	3	ABE 37000	Biological/Microbial Kinetics and Reaction Engineering
_____	3	ABE 44000	Cell and Molecular Design Principles
_____	3	ABE 45700	Transport Operations in Food and Biological Engineering I
_____	3	ABE 46000	Sensors and Process Controls
_____	1	ABE 49000	Professional Practice in Agricultural and Biological Engineering
_____	3	ABE 55700	Transport Operations in Food and Biological Engineering II
_____	3	ABE 55800	Process Design for Food and Biological Systems
_____	3	ABE 58000	Process Engineering of Renewable Resources

Other Departmental /Program Course Requirements (84 credits) (See Advising Resources)

_____	2	ENGR 13100	Transforming Ideas to Innovation I
_____	2	ENGR 13200	Transforming Ideas to Innovation II
_____	4	CHM 11500	General Chemistry (satisfies Science #1 for core)
_____	4	CHM 11600	General Chemistry (satisfies Science #2 for core)
_____		CHM 25700 or	
_____		(CHM 25500 and	
_____	4	CHM 25501)	Organic Chemistry or (Organic Chemistry I and Organic Chemistry Lab I)
_____	4	MA 16500	Plane Analytic Geometry and Calculus I (satisfies Quantitative Reasoning for core)
_____	4	MA 16600	Plane Analytic Geometry and Calculus II
_____	4	MA 26100	Multivariate Calculus
_____	4	MA 26200 ^{CC}	Linear Algebra and Differential Equations
_____	3	MA 30300	Equations for Engineering and the Sciences
_____	4	PHYS 17200	Modern Mechanics
_____	3	CS 15900	Programming Applications for Engineering
_____	3	CHE 32000	Statistical Modeling and Quality Enhancement
_____		BIOL 23000 or	
_____	3	23100	Biology of the Living Cell or Cell Structure and Function
_____	2	IT 22600	Biotechnology Laboratory I
_____		IT 22700 or CNIT	
_____	2	22700	Biotechnology Laboratory II or Bioinformatics
_____	4	-----	Biological Science Selective
_____	3	-----	Biological Science or Science Selective
_____			First-Year Composition (satisfies Written Communication for core) (satisfies Information
_____	4	ENGL 10600	Literacy Selective for core)
_____	3	COM 11400	Fundamentals of Speech Communication (satisfies Oral Communication for core)
_____	3	-----	Written or Oral Communications Selective
_____	3	-----	Economics Selective (satisfies Human Culture Behavioral/Social Science for core)
_____	3	-----	UCC Humanities Selective (satisfies Human Cultures Humanities for core)
_____	3	-----	Humanities or Social Science Selective
_____	3	-----	Humanities or Social Science Selective
_____	3	-----	Humanities or Social Science Selective (30000+ level)

University Core Requirements:

Human Cultures Humanities: _____

Human Cultures Behavioral/Social Science: _____

Information Literacy: _____

Science #1: _____

Science #2: _____

Science, Technology, and Society: _____

Written Communication: _____

Oral Communication: _____

Quantitative Reasoning: _____

College of Agriculture & University Level Requirements:

2.0 GPA required for Bachelor of Science degree.

32 Upper division credits taken from Purdue

6 credits International Understanding: _____

3 credits Multicultural Awareness: _____

3 credits of Hum or Social Science Selective 30000+ level: _____

9 credits of Hum and/or Social Sciences outside the College of Agriculture: _____

129 semester credits required for Bachelor of Science degree.
2.0 GPA required for Bachelor of Science degree.

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Credits	Course number	Course Title	Prerequisites	Credits	Course number	Course Title	Prerequisites
Fall 1st Year				Spring 1st Year			
4	CHM 11500	General Chemistry	pre/co: MA 16100/16500	4	CHM 11600	General Chemistry	CHM 11500
4	ENGL 10600	First-Year Composition		3	COM 11400	Fundamentals of Speech Communication	
2	ENGR 13100	Transforming Ideas to Innovation I		3	CS 15900	Programming Applications for Engineers	pre/co: ENGR 13100
4	MA 16500	Plane Analytic Geometry and Calculus I	ALEKS 85+	4	MA 16600	Plane Analytic Geometry and Calculus II	MA 16500
4	PHYS 17200	Modern Mechanics	co: MA 16500	2	ENGR 13200	Transforming Ideas to Innovation II	ENGR 13100
18				16			
Fall 2nd Year				Spring 2nd Year			
4	ABE 20100	Thermodynamics of Biological Systems I	CHM 11600	3	ABE 20200	Thermodynamics of Biological Systems II	ABE 20100, MA 26100
1	ABE 29000	Sophomore Seminar		3	CHE 32000	Statistical Modeling and Quality Enhancement	pre/co: MA 26200
3	BIOL 23000 or BIOL 23100	Biology of the Living Cell or Cell Structure and Function	CHM 11600, MA 16600	2	IT 22700 or CNIT 22700	Biotechnology Laboratory II or Bioinformatics	IT 22600
4	CHM 25700 or (CHM 25500 and CHM 25501)	Organic Chemistry or (Organic Chemisr y I and Organic Chemistry Lab I)	CHM 11600	4	MA 26200 ^{cc}	Linear Algebra and Differential Equations	MA 26100
2	IT 22600	Biotechnology Laboratory I		3	-----	Economics Selective	
4	MA 26100	Multivariate Calculus	MA 16600				
18				15			
Fall 3rd Year				Spring 3rd Year			
3	ABE 30300	Applications of Physics and Chemistry to Biological Processes	ABE 20200, CHM 25700 or (CHM 25500 and CHM 25501), pre/co: ABE 30700	3	ABE 30100	Numerical and Computational Modeling in Biological Engineering	ABE 37000, MA 30300, CS 15900
3	ABE 30700	Momentum Transfer in Food and Biological Systems	ABE 20200, co: MA 30300	3	ABE 30400	Bioprocess Engineering Laboratory	co: ABE 30800
3	ABE 37000	Biological/Microbial Kinetics and Reaction Engineering	CHM 25700 or (CHM 25500 and CHM 25501), MA 26200, BIOL 23000 or BIOL 23100	3	ABE 30800	Heat and Mass Transfer in Food and Biological Systems	ABE 30700
3	MA 30300	Partial Differential Equations for Engineering and the Sciences	MA 26200	3	ABE 45700	Transport Operations in Food and Biological Engineering I	co: ABE 30800
4	-----	Biological Science Selective		3	-----	Humanities or Social Science Selective	
16				15			
Fall 4th Year				Spring 4th Year			
3	ABE 46000	Sensors and Process Controls	MA 26200	3	ABE 44000	Cell and Molecular Design Principles	BIOL 23000 or 23100, MA 26200
1	ABE 49000	Professional Practice in Agricultural and Biological Engineering	ABE 29000	3	ABE 55800	Process Design for Food and Biological Systems	ABE 55700
3	ABE 55700	Transport Operations in Food and Biological Engineering II	ABE 45700	3	ABE 58000	Process Engineering of Renewable Resources	ABE 37000
3	-----	Biological Science or Science Selective		3	-----	Humanities or Social Science Selective (30000+ level)	
3	-----	Written or Oral Communication Selective		3	-----	UCC Humanities Selective	
3	-----	Humanities or Social Science Selective					
16				15			

129 semester credits required for Bachelor of Science degree.

2.0 GPA required for Bachelor of Science degree.

CC = is considered a critical course; timely progress toward the degree depends upon steady progress through each course in the plan of study, but this course, in particular, should be completed by the semester indicated.

Consultation with an advisor may result in an altered plan customized for an individual student.

Official and complete prerequisite lists are in the course catalog; the incomplete listing presented here regards this program and course sequencing.

CREDIT	PREFIX	NUMBER	TITLE
3	AGRY	32000	Genetics
1	AGRY	32100	Genetics Laboratory
2	CNIT	22700	Bioinformatics
3	FS	36300	Food Microbiology
2	IT	22700	Biotechnology Lab II
3	BCHM	30700, 30900	Biochemistry
4	HORT	30100	Plant Physiology
4	BIOL	11000	Fundamentals of Biology I
4	BIOL	11100	Fundamentals of Biology II
3	BIOL	12100	Biology I: Diversity, Ecology, and Behavior
3	BIOL	13100	Biology II: Diversity, Development, Structure and Function
4	BIOL	22100	Microbiology
2	BIOL	23200	Laboratory in Cell Structure and Function
3	BIOL	24100	Genetics and Molecular Biology
2	BIOL	24200	Laboratory in Molecular Biology and Genetics
4	BIOL	30100	Human Anatomy and Physiology
4	BIOL	30200	Human Design: Anatomy and Physiology
4	BIOL	47800	Bioinformatics
3	BIOL	43200	Reproductive Biology
3	BIOL	43600	Neurobiology
3	BIOL	49300	Introduction to Ethology
3	BIOL	53300	Medical Microbiology
3	IPPH	47500	Biopharm & Pharmacokinetics
3	IPPH	52100	Drug Development

Biology

CREDIT	PREFIX	NUMBER	TITLE
3	AGRY	32000	Genetics
1	AGRY	32100	Genetics Laboratory
2	CNIT	22700	Bioinformatics
3	FS	36300	Food Microbiology
2	IT	22700	Biotechnology Lab II
3	BCHM	30700, 30900	Biochemistry
4	HORT	30100	Plant Physiology
4	BIOL	11000	Fundamentals of Biology I
4	BIOL	11100	Fundamentals of Biology II
3	BIOL	12100	Biology I: Diversity, Ecology, and Behavior
3	BIOL	13100	Biology II: Diversity, Development, Structure and Function
4	BIOL	22100	Microbiology
2	BIOL	23200	Laboratory in Cell Structure and Function
3	BIOL	24100	Genetics and Molecular Biology
2	BIOL	24200	Laboratory in Molecular Biology and Genetics
4	BIOL	30100	Human Anatomy and Physiology
4	BIOL	30200	Human Design: Anatomy and Physiology
4	BIOL	47800	Bioinformatics
3	BIOL	43200	Reproductive Biology
3	BIOL	43600	Neurobiology
3	BIOL	49300	Introduction to Ethology
3	BIOL	53300	Medical Microbiology
3	IPPH	47500	Biopharm & Pharmacokinetics
3	IPPH	52100	Drug Development

Engineering

CREDIT	PREFIX	NUMBER	TITLE
3	ABE	31400	Design of Electronic Systems
3	ABE	45000	Finite Element Method in Design and Opt. Events
3	ABE	49500	Select Topics in Ag. & Biol. Engineering
1-3	ABE	49800	Undergraduate Research in Ag. & Biol. Engineering
1-6	ABE	49900	Honors Thesis Research
3	ABE	53100	Instrumentation and Data Acquisition
3	ABE	56000	Biosensors: Fundamentals and Applications
3	ABE	52700	Computer Models in Environmental and Natural Resources Engineering
3	BME	40100	Nonlinear Dynamics in Biological Systems
3	BME	47000	Biomolecular Engineering
3	BME	43000	Biomedical Imaging Modalities
3	BME	49500	Introduction to Computational Cell Biology (cross listed with MA 49500)
3	CHE	51700	Micro/Nanoscale Physical Processes
3	CHE	54400	Structure and Physical Behavior of Polymeric Materials
3	EEE	25000	Environmental & Ecological Engineering Systems
3	EEE	43000	Industrial Ecology and Life Cycle Analysis
3	IE	23000	Probability and Statistics in Engineering I
3	IE	33000	Probability and Statistics in Engineering II
3	IE	34300	Engineering Economics
3	ME	27000	Basic Mechanics I
3	ME	41800	Engineering of Environmental Systems and Equipment
3	MSE	23000	Structure and Properties of Materials

Science

CREDIT	PREFIX	NUMBER	TITLE
3	CHM	25600	Organic Chemistry II
1	CHM	25601	Organic Chemistry Lab II

CREDIT	PREFIX	NUMBER	TITLE
3	AD	30000-59999	Art and Design
3	AGEC	30500	Agricultural Prices
3	AGEC	34000	International Economic Development
3	AGEC	40600	Natural Resource and Environmental Economics
3	AGEC	41500	Community and Resource Development
3	AGEC	45000	International Agriculture Trade
3	AGEC	49800	Afghanistan Development Challenges
3	AGRY	39900	Afghanistan Development Challenges
3	AGRY	46000	Contemporary Issues in Agriculture
3	ANTH	30000-59999	Anthropology
3	ARAB	30000-59999	Arabic
3	BAND	30000-59999	Band - Maximum of (3) credits can be used for Humanities.
3	CHNS	30000-59999	Chinese
3	CLCS	30000-59999	Classics
3	CMPL	30000-59999	Comparative Literature
3	DANC	30000-59999	Dance
3	ECON	39999-59999	Economics
3	ENGL	33100	Medieval English Literature
3	ENGL	33300	Renaissance English Literature
3	ENGL	33500	Restoration and Eighteenth-Century English Literature
3	ENGL	33700	Nineteenth-Century English Literature
3	ENGL	35000	Survey of American Literature From Its Beginnings to 1865
3	ENGL	35100	Survey of American Literature From 1865 to the Post-World War II Period
3	ENGL	36000	Gender and Literature
3	ENGL	36400	Religious Classics in the Western Tradition
3	ENGL	37200	American Folklore
3	ENGL	37300	Science Fiction and Fantasy
3	ENGL	37500	British Drama to 1800, Exclusive of Shakespeare
3	ENGL	37700	Major Modern Poetry
3	ENGL	37900	The Short Story
3	ENGL	38100	The British Novel
3	ENGL	38200	The American Novel
3	ENGL	38300	Modern Drama: Ibsen to the Absurdist
3	ENGL	38600	History of the Film to 1938
3	ENGL	38700	History of the Film From 1938 to the Present
3	ENGL	39600	Studies in Literature and Language
3	ENGL	41100	Studies in Major Authors
3	ENGL	41200	Studies in Genre
3	ENGL	41300	Studies in Literature and History
3	ENGL	41400	Studies in Literature and Culture
3	ENGL	44100	Chaucer's Canterbury Tales
3	ENGL	44200	Shakespeare

3	ENGL	44400	Milton
3	ENGL	46200	The Bible As Literature: The Old Testament
3	ENGL	46300	The Bible As Literature: The New Testament
3	ENGL	46800	Problems in the History of Criticism
3	ENGL	46900	Issues in Contemporary Criticism and Theory
3	ENGL	49200	Literature in the Secondary Schools
3	FLL	30000-59999	Foreign Languages and Literatures
3	FNR	37500	Human Dimensions of Natural Resource Management
3	FR	30000-59999	French
3	FVS	30000-59999	Film and Video Studies
3	GER	30000-59999	German
3	GREK	30000-59999	Greek
3	HEBR	30000-59999	Hebrew
3	HIST	30000-59999	History
3	HORT	30600	History of Horticulture
3	IDIS	30000-59999	Interdisciplinary Studies
3	ITAL	30000-59999	Italian
3	JPNS	30000-59999	Japanese
3	LING	30000-59999	Linguistics
3	MARS	30000-59999	Medieval and Renaissance Studies
3	MUS	30000-59999	Music
3	PHIL	30000-59999	Philosophy
3	PSY	30000-59999	Psychology
3	PTGS	30000-59999	Portuguese
3	RUSS	30000-59999	Russian
3	SOC	30000-59999	Sociology
3	SPAN	30000-59999	Spanish
3	THTR	30000-59999	Theatre

CREDIT	PREFIX	NUMBER	TITLE
3	AAS	10000-59999	African American Studies
3	AD	10000-59999	Art and Design
3	AGEC	25000	Economic Geography of World Food and Resources
3	AGEC	30500	Agricultural Prices
3	AGEC	34000	International Economic Development
3	AGEC	40600	Natural Resource and Environmental Economics
3	AGEC	41500	Community and Resource Development
3	AGEC	45000	International Agriculture Trade
3	AGEC	49800	Afghanistan Development Challenges
3	AGR	20100	Communicating Across Culture
3	AGRY	39900	Afghanistan Development Challenges
3	AGRY	46000	Contemporary Issues in Agriculture
3	BAND	10000-59999	Band - Maximum of (3) credits can be used for Humanities.
3	CHNS	10000-59999	Chinese
3	CLCS	10000-59999	Classics
3	CMPL	10000-59999	Comparative Literature
3	DANC	10000-59999	Dance
3	ECON	10000-59999	Economics
3	EDPS	23500	Learning and Motivation
3	EDPS	26500	The Inclusive Classroom
3	EDST	20000	History and Philosophy of Education
3	ENGL	22700	Elements of Linguistics
3	ENGL	23000	Great Narrative Works
3	ENGL	23100	Introduction to Literature
3	ENGL	23200	Thematic Studies in Literature
3	ENGL	23500	Introduction to Drama
3	ENGL	23700	Introduction to Poetry
3	ENGL	23800	Introduction to Fiction
3	ENGL	23900	Introduction to Biography
3	ENGL	24000	Survey of British Literature: From the Beginnings Through the Neoclassical Period
3	ENGL	24100	Survey of British Literature: From the Rise of Romanticism to the Modern Period
3	ENGL	25000	Great American Books
3	ENGL	25700	Literature of Black America
3	ENGL	26000	Introduction to World Literature: To 1700
3	ENGL	26400	The Bible As Literature
3	ENGL	26600	World Literature: From the Beginnings to 1700 A.D.
3	ENGL	26700	World Literature: From 1700 A.D. to the Present
3	ENGL	27600	Shakespeare On Film
3	ENGL	27900	The American Short Story in Print and Film
3	ENGL	33100	Medieval English Literature
3	ENGL	33300	Renaissance English Literature
3	ENGL	33500	Restoration and Eighteenth-Century English Literature
3	ENGL	33700	Nineteenth-Century English Literature
3	ENGL	35000	Survey of American Literature From Its Beginnings to 1865
3	ENGL	35100	Survey of American Literature From 1865 to the Post-World War II Period
3	ENGL	36000	Gender and Literature
3	ENGL	36400	Religious Classics in the Western Tradition

3	ENGL	37200	American Folklore
3	ENGL	37300	Science Fiction and Fantasy
3	ENGL	37500	British Drama to 1800, Exclusive of Shakespeare
3	ENGL	37700	Major Modern Poetry
3	ENGL	37900	The Short Story
3	ENGL	38100	The British Novel
3	ENGL	38200	The American Novel
3	ENGL	38300	Modern Drama: Ibsen to the Absurdist
3	ENGL	38600	History of the Film to 1938
3	ENGL	38700	History of the Film From 1938 to the Present
3	ENGL	39600	Studies in Literature and Language
3	ENGL	41100	Studies in Major Authors
3	ENGL	41200	Studies in Genre
3	ENGL	41300	Studies in Literature and History
3	ENGL	41400	Studies in Literature and Culture
3	ENGL	44100	Chaucer's Canterbury Tales
3	ENGL	44200	Shakespeare
3	ENGL	44400	Milton
3	ENGL	46200	The Bible As Literature: The Old Testament
3	ENGL	46300	The Bible As Literature: The New Testament
3	ENGL	46800	Problems in the History of Criticism
3	ENGL	46900	Issues in Contemporary Criticism and Theory
3	ENGL	49200	Literature in the Secondary Schools
3	FLL	10000-59999	Foreign Languages and Literatures
3	FNR	37500	Human Dimensions of Natural Resource Management
3	FR	10000-59999	French
3	FVS	10000-59999	Film and Video Studies
3	GER	10000-59999	German
3	GREK	10000-59999	Greek
3	HEBR	10000-59999	Hebrew
3	HIST	10000-59999	History
3	HONR	19900	Science and Pseudoscience
3	HONR	29900	Insects in Literature and Art
3	HORT	30600	History of Horticulture
3	IDIS	10000-59999	Interdisciplinary Studies
3	ITAL	10000-59999	Italian
3	JPNS	10000-59999	Japanese
3	JWST	10000-59999	Jewish Studies
3	LALS	10000-59999	Latin American and Latino Studies
3	LING	10000-59999	Linguistics
3	MARS	10000-59999	Medieval and Renaissance Studies
3	MUS	10000-59999	Music
3	PHIL	10000-59999	Philosophy
3	POL	10000-59999	Political Science
3	PSY	10000-59999	Psychological Sciences
3	PTGS	10000-59999	Portuguese
3	REL	10000-59999	Religious Studies
3	RUSS	10000-59999	Russian
3	SOC	10000-59999	Sociology

3	SPAN	10000-59999	Spanish
3	THTR	10000-59999	Theatre
3	WOST	10000-59999	Women's Studies

CREDIT	PREFIX	NUMBER	TITLE
3 ✓	ENGL	10100	English Composition I (and)
3 ✓	ENGL	10200	English Composition II
3 ✓	ENGL	10300	Comprehensive First Year Composition (and)
3 ✓	ENGL	20000-59999	
3 ✓	ENGL	10300	Comprehensive First Year Composition (and)
3 ✓	COM	20000-59999	
3 ✓	ENGL	10400	English Composition I (and)
3 ✓	ENGL	10500	English Composition II
4 ✓	ENGL	10600	First-Year Composition
3 ✓	ENGL	10800	Accelerated First-Year Composition
3 ✓	ENG	W1310	Elementary Composition I (and)
3 ✓	ENGL	20000-59999	
3 ✓	ENG	W1310	Elementary Composition I (and)
3 ✓	COM	20000-59999	
3 ✓	HONR	19903	Interdisciplinary Approaches in Writing

CREDIT	PREFIX	NUMBER	TITLE
3	COM	11400	Fundamentals of Speech Communication
3	COM	21700	Science Writing and Presentation
3	COM	31400	Advanced Presentational Speaking
3	COMM	R1100	Fundamentals of Speech Communication

CREDIT	PREFIX	NUMBER	TITLE
3	AGR	20100	Communicating Across Culture
3	YDAE	44000	Methods of Teaching Agricultural Education
3	ASL	XXXXX	American Sign Language
3	COM	20000+	Communication
3	ENGL	20000+	English
3	COM	C2230	Business & Professional Comm
3	COM	C3390	Freedom of Speech
3	COM	1XXXX	Intro to Public Relations
3	COM	2XXXX	Advanced Public Speaking
3	COM	2XXXX	Business & Professional Comm
3	COM	2XXXX	Oral Interpretation of Lit
3	COM	3XXXX	Freedom of Speech
3	ENG	L2020	Literary Interpretation
3	ENG	L2030	Intro to Drama
3	ENG	L2040	Intro to Fiction
3	ENG	L2050	Intro to Poetry
3	ENG	L2070	Women & Literature
3	ENG	L2130	Literary Master Pieces I
3	ENG	L2140	Literary Master Pieces II
3	ENG	L2300	Science Fiction
3	ENG	W2030	Creative Writing
3	ENG	W2310	Professional Writing Skills
3	ENGL	1XXXX	Critical Reasoning & Writing
3	ENGL	1XXXX	Technical Writing
3	ENGL	1XXXX	Broadcast Writing
3	ENGL	2XXXX	Children's Literature
3	ENGL	2XXXX	English Grammar
3	ENGL	2XXXX	Literary Master Pieces I
3	ENGL	2XXXX	Literary Master Pieces II
3	ENGL	2XXXX	Science Fiction
3	ENGL	2XXXX	Western Literature I
3	ENGL	2XXXX	Western Literature II

CREDIT	PREFIX	NUMBER	TITLE
3	AAS	27100	Introduction to Afro-American Studies
3	AAS	27700	African American Pop Culture
3	AAS	37000	Black Women Rising
3	AAS	37100	The African American Experience
3	AAS	37300	Issues in African American Studies
3	AAS	37500	The Black Family
3	AAS	37600	The Black Male
3	AAS	37700	African American Sexuality and Society
3	AGR	20100	Communicating Across Culture
3	ANTH	20500	Human Cultural Diversity
3	ANTH	23000	Gender Across Cultures
3	ANTH	28200	Introduction to LGBT Studies
3	ANTH	30300	Gender Across Cultures
3	ANTH	340	Global Perspectives on Health
3	ANTH	37900	Indians of North America
3	ANTH	48200	Sexual Diversity in Global Perspectives
3	ANTH	57800	Peoples of Middle America
3	ASAM	24000	Introduction to Asian American Studies
3	CDFS	30100	Diversity in Individual and Family Life
3	COM	30300	Intercultural Communication
3	COM	32800	Diversity at Work: A Rhetorical Approach
3	COM	37600	Communication and Gender
3	COM	38100	Gender and Feminist Studies in Communication
3	COM	36800	Sociolinguistic Study of African American English
3	EDCI	28500	Multiculturalism and Education
3	ENGL	25700	Literature of Black America
3	ENGL	35400	Asian American Literature
3	ENGL	35800	Black Drama
3	ENGL	36000	Gender and Literature
3	ENTR	47000	Women and Leadership
3	HDFS	28000	Diversity in Individual and Family Life
3	HDFS	30100	Families in a multicultural society
3	HIST	35400	Women in America to 1870
3	HIST	36500	Women in America
3	HIST	36600	Hispanic Heritage of the United States
3	HIST	37500	Women in America since 1870
3	HIST	37700	History and Culture of Native America
3	HIST	39600	The Afro-American to 1865
3	HIST	39800	The Afro-American since 1865
3	HK	22600	Contemporary Women's Health
3	IDIS	27100	Introduction to Afro-American Studies
3	IDIS	27100	African American Experience
3	IDIS	28000	Women's Studies: An Introduction
3	IDIS	33000	Introduction to Jewish Studies
3	IDIS	37000	Black Women Rising
3	IDIS	37500	Black Family

3	IDIS	37600	African American Male
3	IDIS	38000	Gender and Multiculturalism
3	IDIS	48100	Women of Color in the United States
3	JWST	33000	Introduction to Jewish Studies
3	OLS	49900	Women and Work
3	PHIL	20600	Philosophy of Religion [Completed before June, 2011.]
3	PHIL	22500	Philosophy of Women
3	PHIL	24200	Philosophy, Culture and the African American Experience
3	PHIL	23000	Religions of the East
3	PHIL	23100	Religions of the West
3	POL	22200	Women, Politics, and Public Policy
3	POL	32600	Black Political Participation in America
3	POL	36000	Women and the Law
3	POL	45600	African American Political Thought
3	PSY	23900	The Psychology of Women
3	PSY	33500	Stereotyping and Prejudice
3	PSY	36800	Children's Development in Cross-Cultural Perspective
3	REL	23000	Religions of the East
3	REL	23100	Religions of the West
3	SOC	22000	Social Problems
3	SOC	31000	Racial and Ethnic Diversity
3	SOC	35600	Hate and Violence
3	SOC	36700	Religion in America
3	SOC	45000	Gender Roles in Modern Society
3	SPAN	23500	Mexican and Latino Culture
3	WOST	28000	Women's Studies: An Introduction
3	WOST	38000	Gender and Multiculturalism
3	WOST	38100	Women of Color in the United States
3	WOST	38300	Women and Work
3	WOST	48000	Feminist Theory
3	WOST	48200	Interdisciplinary Studies in Sexuality: Scholarship on Lesbian and Gay Issues
3	WGSS	28000	Women's Studies: An Introduction
3	WGSS	38000	Gender and Multiculturalism
3	WGSS	38100	Women of Color in the United States
3	WGSS	38300	Women and Work
3	WGSS	48000	Feminist Theory
3	WGSS	48200	Interdisciplinary Studies in Sexuality: Scholarship on Lesbian and Gay Issues
3	YDAE	38500	Urban Service-Learning

CREDIT	PREFIX	NUMBER	TITLE
3	AGEC	25000	Economic Geography of World Food and Resources
3	AGEC	34000	International Economic Development
3	AGEC	45000	International Agricultural Trade
3	AGEC	49800	Afghanistan Development Challenges
1 to 3	AGR	49300	Special Topics in International Agriculture
3	AGR	49500	Intl. Prof. Experience in Agri., Food and Nat. Resources
3	AGR	49700	Agriculture Study Abroad
3	AGRY	28500	World Crop Adaptation and Distribution
1 to 3	AGRY	35000	Global Awareness
3	AGRY	39900	Afghanistan Development Challenges
3	ANSC	29400	Exploring International Animal Agriculture
3	AGRY	39900	Exploring International Agriculture
3	AGRY	57000	Agronomy in International Development
3	AGRY	59800	African Development Challenges
3	ANTH	10000	Introduction to Anthropology
3	ANTH	20500	Human Cultural Diversity
3	ANTH	39200	Globalization and Culture
3	ANTH	57600	Economic Development and Social Change
3	ANTH	57800	Peoples of Middle America
3	ARAB	10000-59999	Arabic
3	BTNY	20100	Plants and Civilization
3	CHNS	10000-59999	Chinese
3	COM	22400	Communicating in the Global Workplace
3	COM	42400	Communicating in International Organizations
3	ECON	37000	International Trade
3	ECON	46600	International Economics
3	ENGL	26600	World Literature: From the Beginnings to 1700 A.D.
3	ENGL	26700	World Literature: From 1700 A.D. to the Present
3	FNR	23000	The World's Forests and Society
3	FNR	46000	International Natural Resources Summer Program
3	FNR	48800	Global Environmental Issues
3	FR	10000-59999	French
3	GER	10000-59999	German
3	GREK	10000-59999	Greek
3	HEBR	10000-59999	Hebrew
3	HIST	24000	East Asia and Its Historic Transition
3	HIST	24100	East Asia in the Modern World
3	HIST	24300	South Asia History and Civilizations
3	HIST	24500	Introduction to the Middle East History and Culture
3	HIST	24600	Modern Middle East and North Africa
3	HIST	27100	Latin American History to 1824
3	HIST	27200	Latin American History from 1824
3	HIST	29000	Russia: Yesterday, Today, and Tomorrow
3	HIST	30000	Eve of Destruction: Global Crisis and World Organization in the 20th Century
3	HIST	30200	History of Horticulture
3	HIST	32300	German History
3	HIST	32400	Modern France

3	HIST	34000	Modern China
3	HIST	34100	History of Africa South of the Sahara
3	HIST	34200	Africa and the West
3	HIST	34300	Traditional Japan
3	HIST	34400	History of Modern Japan
3	HIST	34500	Modern Middle East
3	HIST	40800	Dictatorship and Democracy: Europe 1919-1945
3	HIST	43700	The History of East-Central Europe and the Russian Satellite Areas
3	HIST	43900	Communist China
3	HIST	44100	Africa in the Twentieth Century
3	HIST	47200	History of Mexico
3	HIST	59500	The Holocaust and Genocide
3	HONR	19900	Malaria: First World Science v. Third World Disease: A Moral Dilemma?
3	HONR	19900	The Role of Animals in Societies of the World
3	HONR	29900	Afghanistan Development Challenges
3	HORT	30600	History of Horticulture
3	HORT	40300	Tropical Horticulture
3	HORT	45000	In The English Landscape: Integrating History, Horticulture, and Landscape Architecture
3	HTM	39800	Cuisine and Culture Abroad
3	IDIS	38100	Contemporary Japanese Women
3	ITAL	10000-59999	Italian
3	JPNS	10000-59999	Japanese
3	LA	16600	History and Theory of Landscape Architecture
3	LA	45000	In The English Landscape: Integrating History, Horticulture, and Landscape Architecture
3	PHIL	11000	Introduction to Philosophy
3	PHIL	23000	Religions of the East
3	PHIL	23100	Religions of the West
3	PHIL	33000	Religions of the East
3	PHIL	33100	Religions of the West
3	POL	13000	Introduction to International Relations
3	POL	14100	Governments of the World
3	POL	23100	Introduction to United States Foreign Policy
3	POL	23200	Contemporary Crisis in International Relations
3	POL	23500	International Relations Among Rich and Poor Nations
3	POL	23700	Modern Weapons and International Relations
3	POL	29000	Russia: Yesterday, Today, and Tomorrow
3	POL	30300	Comparative Politics
3	POL	30400	Israel and World Politics
3	POL	32200	Science and World Politics
3	POL	32700	Global Green Politics
3	POL	34200	Government and Politics in the Communist Successor States
3	POL	34400	Introduction to the Politics of the Third World
3	POL	34500	Western European Democracies in the Post-Industrial Era
3	POL	34800	East Asian Politics
3	POL	43300	International Organization
3	POL	43400	United States Foreign Policy, Central America and the Caribbean
3	POL	43500	International Law
3	POL	44200	Government and Politics of Russia
3	POL	44400	Introduction to African Politics

3	POL	44500	Politics of France and Germany
3	POL	44700	The British Political System and the Commonwealth of Nations
3	POL	44900	Japanese Political Economy
3	PTGS	10000-59999	Portuguese
3	REL	23000	Religions of the East
3	REL	23100	Religions of the West
3	RUSS	10000-59999	Russian
3	SPAN	10000-59999	Spanish

CREDIT	PREFIX	NUMBER	TITLE
CALCULUS			
3	MA	15910	Introduction to Calculus
3	MA	16010	Applied Calculus I
3	MA	16020	Applied Calculus II
5	MA	16100	Plane Analytic Geometry and Calculus I
5	MA	16300	Integrated Calculus Analytic Geometry I
4	MA	16500	Analytic Geometry and Calculus I
3	MA	22000	Introduction to Calculus
3	MA	22100	Calculus for Technology I
3	MA	22300	Introductory Analysis I
3	MA	22400	Calculus for Life Science I
3	MA	22500	Calculus for Business and Economics I
3	MA	22700	Calculus for Technology I
3	MA	23100	Calculus for the Life Sciences I
3	MA	22900	Calculus for Managerial, Social, and Biological Sciences I
3	MA	2XXXX	Brief Calculus I
4	MA	2XXXX	Calculus I
3	MATH	M1190	Brief Survey of Calculus I
4	MATH	M2110	Calculus I
CALCULUS I			
3	MA	16010	Applied Calculus I
5	MA	16100	Plane Analytic Geometry and Calculus I
5	MA	16300	Integrated Calculus Analytic Geometry I
4	MA	16500	Analytic Geometry and Calculus I
5	MA	16700	Plane Analytic Geometry and Calculus I
5	MA	18100	Honors Calculus I
3	MA	22100	Calculus for Technology I
3	MA	22300	Introductory Analysis I
3	MA	22500	Calculus for Business and Economics I
3	MA	22700	Calculus for Technology I
3	MA	23100	Calculus for the Life Sciences I
3	MA	22900	Calculus for Managerial, Social, and Biological Sciences I
3	MA	2XXXX	Brief Calculus I
4	MA	2XXXX	Calculus I
3	MATH	M1190	Brief Survey of Calculus I
4	MATH	M2110	Calculus I
CALCULUS II			
3	MA	16020	Applied Calculus II
5	MA	16200	Plane Analytic Geometry and Calculus II
5	MA	16400	Integrated Calculus Analytic Geometry II
4	MA	16600	Analytic Geometry and Calculus II
5	MA	16900	Plane Analytic Geometry and Calculus II
5	MA	17300	Calculus and Analytic Geometry II
5	MA	18200	Honors Calculus II
3	MA	22200	Calculus for Technology II
3	MA	22400	Introductory Analysis II
3	MA	22800	Calculus for Technology II
3	MA	23000	Calculus for Managerial, Social, and Biological Sciences II
3	MA	23200	Calculus for the Life Sciences II
3	MA	2XXXX	Brief Calculus II
4	MA	2XXXX	Calculus II
3	MATH	M1200	Brief Survey of Calculus II
4	MATH	M2120	Calculus II
CALCULUS - MA 16500			
5	MA	16100	Plane Analytic Geometry and Calculus I
5	MA	16300	Integrated Calculus Analytic Geometry I
4	MA	16500	Analytic Geometry and Calculus I
5	MA	16700	Plane Analytic Geometry and Calculus I
5	MA	18100	Honors Calculus I
4	MA	2XXXX	Calculus I
4	MATH	M2110	Calculus I
CALCULUS - MA 16600			
5	MA	16200	Plane Analytic Geometry and Calculus II
5	MA	16400	Integrated Calculus Analytic Geometry II
4	MA	16600	Analytic Geometry and Calculus II
5	MA	16900	Plane Analytic Geometry and Calculus II
5	MA	17300	Calculus and Analytic Geometry II
5	MA	18200	Honors Calculus II
4	MA	2XXXX	Calculus II
4	MATH	M2120	Calculus II

CREDIT	PREFIX	NUMBER	TITLE
0.5	AGR	11100	Introduction to Agricultural and Biological Engineering Academic Programs
0.5	AGR	11200	Introduction to Agricultural Economics Academic Programs
0.5	AGR	11300	Introduction to Agronomy Academic Programs
0.5	AGR	11400	Introduction to Animal Sciences Academic Programs
0.5	AGR	11500	Introduction to Biochemistry Academic Programs
0.5	AGR	11600	Introduction to Botany and Plant Pathology Academic Programs
0.5	AGR	11700	Introduction to Entomology Academic Programs
0.5	AGR	11800	Introduction to Food Science Academic Programs
0.5	AGR	11900	Introduction to Forestry and Natural Resources Academic Programs
0.5	AGR	12000	Introduction to Horticulture and Landscape Architecture Academic Programs
0.5	AGR	12100	Introduction to Youth Development and Agricultural Education Academic Programs
0.5	AGR	12200	Introduction to Natural Resources and Environmental Science Academic Programs
0.5	AGR	12300	Introduction to College of Agriculture Interdisciplinary Agriculture Academic Programs
0.5	AGR	12400	Introduction to College of Agriculture Pre Veterinary Medicine Academic Programs
0.5	AGR	12500	Introduction to Plant Science Programs
Please hide the following courses in the students worksheet			
1	AT	10000	Introduction to Aviation Technology
1	CHM	19400	Freshman Chemistry Orientation
1	CHHS	10000	Introduction to Health Professions
1	CNIT	10100	Orientation to Computer and Information Technology
1	CS	10000	An Introduction to Computer Science
1	ENGR	10400	Introduction to Engineering and Purdue
1	HDFS	10000	Orientation to Current Issues in Human Development and Family Studies
1	HK	13500	Introduction to Health and Kinesiology
1	HSCI	13000	Introduction to Medical Laboratory Science
1	HTM	10010	Introduction to the Hospitality and Tourism Industry
1	IPPH	10000	Pharmaceutical Sciences Orientation
1	MGMT	10000	Introduction to Management
1	OLS	10000	Introduction to Organizational Leadership
1	PHRM	10000	Pharmacy Orientation I
1	PHYS	19400	Freshman Physics Orientation
1	PSY	10000	Introduction to the Science and Fields of Psychology
1	VM	14000	Introduction to Veterinary Technology

CREDIT	PREFIX	NUMBER	TITLE
4	ABE	48500	Agricultural and Biological Engineering Design
3	ABE	48600	Agricultural Engineering Design
4	ABE	55600	Biological and Food Process Design
4	AGEC	41100	Farm Management
3	AGEC	42700	Advanced Agribusiness Marketing
2	AGEC	42900	Agribusiness Marketing Workshop
3	AGEC	43000	Agricultural and Food Business Strategy
4	AGEC	43100	Advanced Agri-Sales and Marketing
1	AGEC	49900	Thesis
1	AGRY	49800	Agronomy Senior Seminar (and)
3	AGRY	58500	Soils and Land Use
1	AGRY	49800	Agronomy Senior Seminar (and)
3	AGRY	51200	Integrated Turfgrass Systems
1	AGRY	49800	Agronomy Senior Seminar (and)
3	EPCS	1XXXX-5XXXX	
1	ANSC	48100	Contemporary Issues in Animal Sciences (and)
3	ANSC	44000	Horse Management
1	ANSC	48100	Contemporary Issues in Animal Sciences (and)
3	ANSC	44100	Beef Management
1	ANSC	48100	Contemporary Issues in Animal Sciences (and)
3	ANSC	44200	Sheep Management
1	ANSC	48100	Contemporary Issues in Animal Sciences (and)
3	ANSC	44300	Swine Management
1	ANSC	48100	Contemporary Issues in Animal Sciences (and)
3	ANSC	44400	Dairy Management
1	ANSC	48100	Contemporary Issues in Animal Sciences (and)
3	ANSC	44500	Commercial Poultry Management
1	ANSC	48100	Contemporary Issues in Animal Sciences (and)
3	ANSC	44600	Companion Animal Management
3	ASM	49500	Agricultural Systems Management
3	BCHM	49800	Research in Biochemistry
3	BCHM	49801	Head Start to Biochemistry Research
3	BCHM	49900	Honors Thesis in Biochemistry
1	BCHM	49000	Undergraduate Seminar (and)
3	BCHM	49800	Research in Biochemistry
1	BCHM	49000	Undergraduate Seminar (and)

3	BCHM	49801	Head Start to Biochemistry Research
1	BCHM	49000	Undergraduate Seminar (and)
3	BCHM	49900	Honors Thesis in Biochemistry
1	BTNY	49700	Undergraduate Seminar (and)
1	BTNY	49800	Research in Plant Science
10	EDCI	49800	Supervised Treaching in Agricultural Education
1	ENTM	49200	Capstone Experience in Entomology I (and)
1	ENTM	49300	Capstone Experience in Entomology II
1	EPCS	40100	Senior Participation in EPICS
2	EPCS	40200	Senior Participation in EPICS
3	FNR	40800	Natural Resources Planning
3	FS	44300	Food Processing III
3	HORT	42500	Landscape Horticulture Capstone Project
1	HORT	42600	Landscape Contracting and Management Capstone Experience
1	HORT	44000	Public Garden Management
1	HORT	44500	Strategic Analysis of Horticultural Production and Marketing
1	HORT	49200	Horticultural Science Capstone Seminar
3	IT	48300	Facility Design for Lean Manufacturing
5	LA	42600	Capstone Course in Landscape Architecture
1	NRES	41000	Research in Natural Resources and Environmental Science
1	NRES	42000	Environmental Internship Reporting
3	YDAE	48000	Agricultural Communication Capstone Seminar

CREDIT	PREFIX	NUMBER	TITLE
3	ABE	35400	Transport Processes In Biological and Food Process Systems
3	ABE	46000	Sensors & Process Controls
1-3	ABE	49500	Select Topics in Agricultural and Biological Engineering
1-3	ABE	49800	Undergraduate Research in Agricultural and Biological Engineering
1-3	ABE	49900	Honors Thesis Research
3	ABE	50100	Welding Engineering
3	ABE	54500	Design of Off-Highway Vehicles
3	ABE	58000	Process Engineering of Renewable Resources
3	ABE	53100	Instrumentation and Data Acquisition
3	ECE	20700	Electronic Measurement Techniques
1-6	EPCS	101-406	Engineering Projects in Community Service
3	IE	34300	Engineering Economics
3	IE	37000	Manufacturing Processes I
3	IE	57700	Human Factors in Engineering
1-6	GEP		Global Engineering Projects
3	ME	26300	Introduction to Mechanical Engineering Design
3	ME	30000	Thermodynamics II
3	ME	31500	Heat and Mass Transfer
3	ME	36500	Systems and Measurements
3	ME	37500	System Modeling and Analysis
3	ME	41300	Noise Control
3	ME	41800	Engineering of Environmental Systems and Equipment
3	ME	43000	Power Engineering
3	ME	44000	Internal Combustion Engines
3	ME	47500	Automatic Control Systems
3	MSE	23000	Structure & Properties of Materials

CREDIT	PREFIX	NUMBER	TITLE
1 to 4	ABE	10000-59999	
1 to 4	AGEC	10000-59999	
1 to 4	AGR	10000-59999	
1 to 4	AGRY	10000-59999	
1 to 4	ANSC	10000-59999	
1 to 4	ASM	10000-59999	
1 to 4	BCHM	10000-59999	
1 to 4	BTNY	10000-59999	
1 to 4	ENTM	10000-59999	
1 to 4	FNR	10000-59999	
1 to 4	FS	10000-59999	
1 to 4	HORT	10000-59999	
1 to 4	LA	10000-59999	
1 to 4	NRES	10000-59999	
1 to 4	YDAE	10000-59999	

3	CHM	11100	General Chemistry	
4	CHM	11500	General Chemistry	
4	CHM	12300	General Chemistry for Engineers I	
5	CHM	12500	Introduction to Chemistry I	
4	CHM	13500	General Chemistry Honors	
3	CHEM	C1010	Elementary Chemistry I	
3	CHEM	C1050	Principles of Chemistry I	
	CHM	1XXXX	Chemistry I	These courses should be evaluated. Do not enroll or blanket approval. Students will need to be able to enroll in 2nd semester CHM.
	CHM	1XXXX	General Chemistry I	These courses should be evaluated. Do not enroll or blanket approval. Students will need to be able to enroll in 2nd semester CHM.
	CHM	1XXXX	Principles of Chemistry I	These courses should be evaluated. Do not enroll or blanket approval. Students will need to be able to enroll in 2nd semester CHM.

CREDIT	PREFIX	NUMBER	TITLE
3	STAT	22500	Introduction to Probability Models
3	STAT	24000	Statistical Models for Biology
3	STAT	30100	Elementary Statistical Methods
3	STAT	35000	Introduction to Statistics
3	STAT	50100	Experimental Statistics I
3	STAT	50200	Experimental Statistics II
3	STAT	50300	Statistical Methods for Biology
3	STAT	51100	Statistical Methods
3	STAT	K3010	Statistical Techniques
3	STAT	3XXXX	Statistical Techniques
3	STAT	3XXXX	Probability+Statistics

CREDIT	PREFIX	NUMBER	TITLE		
4	BIOL	11000	Fundamentals of Biology I *		
4	BIOL	11100	Fundamentals of Biology II *		
2	BIOL	12100	Biology I: Diversity, Ecology, and Behavior		
3	BIOL	13100	Biology II: Diversity, Development, Structure and Function of Organisms		
1	BIOL	13600	Quantitative and Problem Solving Skills		
1	BIOL	13700	Handling Cells and Tissues, Microscopy		
1	BIOL	13800	Information and Communication Skills		
1	BIOL	13900	Measurements and Basic Solution Chemistry		
2	BIOL	19500	First-Year Biology Laboratory *		
4	BIOL	20300	Human Anatomy and Physiology *		
4	BIOL	20400	Human Anatomy and Physiology *		
4	BIOL	22100	Introduction to Microbiology *		
3	BIOL	23000	Biology of the Living Cell		
3	BIOL	23100	Biology III: Cell Structure and Function		
2	BIOL	23200	Laboratory in Biology III: Cell Structure and Function		
2	BIOL	27000	Cell Structure and Function		
2	BIOL	27100	Laboratory in Cell Structure and Function *		
2	BIOL	28000	Genetics and Molecular Biology		
2	BIOL	28100	Laboratory in Genetics and Molecular Biology *		
1	BIOL	29500	Quantitative Biology of the Living Cell		
4	BTNY	11000	Introduction to Plant Science *		
4	BTNY	21000	Introduction to Plant Science *		
4	HORT	30100	Plant Physiology *		
5	BIOL	K1010	Concepts of Biology I	IUPUI	
5	BIOL	K1030	Concepts of Biology II	IUPUI	
5	BIOL	1XXXX	Concepts of Biology I	Indiana	BIO 101
5	BIOL	1XXXX	Concepts of Biology II	Indiana	BIO 102
5	BIOL	1XXXX	Biology I	ITCC	BIO 101
5	BIOL	1XXXX	Biology II	ITCC	BIO 102
3	BIOL	1XXXX	Principles of Biology I (and)	Vincennes	BIO 103
1	BIOL	1XXXX	Principles of Biology Lab I	Vincennes	BIO 104
3	BIOL	1XXXX	Principles of Biology II (and)	Vincennes	BIO 105
1	BIOL	1XXXX	Principles of Biology Lab II	Vincennes	BIO 106

Note: When taken together (BIO 101 + 102) and BIO 106 + 104 = BIO 11000 & 11100

Note: When taken together (BIO 103 + 104) and BIO 105 + 106 = BIO 11000 & 11100

CREDIT	PREFIX	NUMBER	TITLE
3	AGEC	35200	Quantitative Techniques for Firm Decision Making
3	AGEC	45100	Applied Econometrics
3	AGRY	25500	Soil Science
3	AGRY	27000	Forest Soils
3	AGRY	29000	Intro to Environmental Sceience
3	AGRY	32000	Genetics
1	AGRY	32100	Genetics Laboratory
3	AGRY	33500	Weather and Climate
2	AGRY	33600	General Meteorology
3	AGRY	36500	Soil Fertility
3	AGRY	38500	Environmental Soil Chemistry
3	AGRY	46500	Soil Physics Properties
3	ANSC	22100	Principles of Animal Nutrition
4	ANSC	23000	Physiology of Domestic Animals
	BCHM	10000	Intro to Biochemistry
3	BCHM	30700	Biochemistry
1	BCHM	30900	Biochemistry Laboratory
4	BIOL	22100	Introduction to Microbiology
3	BIOL	23100	Biology III: Cell Structure and Function
2	BIOL	23200	Laboratory in Biology III: Cell Structure and Function
3	BIOL	24100	Biology IV: Genetics and Molecular Biology
3	BIOL	24200	Laboratory in Biology IV: Genetics and Molecular Biology
2	BIOL	27000	Cell Structure and Function
2	BIOL	27100	Laboratory in Cell Structure and Function
2	BIOL	28000	Genetics and Molecular Biology
2	BIOL	28100	Laboratory in Genetics and Molcular Biology
2	BIOL	28600	Introduction to Ecology and Evolution
2	BIOL	28700	Laboratory in Introduction to Ecology
4	BTNY	11000	Introduction to Plant Science
3	BTNY	21100	Plants and the Environment
3	BTNY	30100	Introductory to Plant Pathology
3	BTNY	30500	Fundamentals of Plant Classification
4	BTNY	31600	Plant Anatomy
3	BTNY	35000	Biotechnology in Agriculture
4	CHM	22400	Introductory Quantitative Analysis
3	CHM	25500	Organic Chemistry
1	CHM	25501	Organic Chemistry Laboratory
3	CHM	25600	Organic Chemistry
1	CHM	25601	Organic Chemistry Laboratory
4	CHM	25700	Organic Chemistry

1	CHM	25701	Organic Chemistry Laboratory
3	CHM	26100	Organic Chemistry
3	CHM	26200	Organic Chemistry
1	CHM	26300	Organic Chemistry Laboratory
1	CHM	26400	Organic Chemistry Laboratory
3	CS	15600	C Programming
4	CS	18000	Programming I
3	EAS	11100	Physical Geology
3	EAS	11200	Earth Through Time
3	EAS	22100	Survey of Atmospheric Science
2	ENTM	20600	General Entomology
1	ENTM	20700	General Entomology Laboratory
3	ENTM	21000	Introduction to Insect Behavior
2	ENTM	30600	General Applied Entomology
1	ENTM	30700	Companion Laboratories to ENTM 30600
3	ENTM	34000	Insect Pests of Trees, Turf, and Ornamentals
3	FNR	20100	Marine Biology
3	FNR	23000	The World's Forests and Society
3	FNR	24000	Wildlife in America
3	FNR	30500	Conservation Genetics
3	FNR	35700	Fundamental Remote Sensing
3	HONR	49900	Human Diseases and Disorders
4	HORT	30100	Plant Physiology
3	HORT	35000	Biotechnology in Agriculture
5	MA	16200	Plane Analytic Geometry and Calculus II
4	MA	16600	Analytic Geometry and Calculus II
3	MA	22400	Introductory Analysis II
3	MA	23200	Calculus for the Life Sciences II
4	MA	26100	Multivariate Calculus
3	MA	26500	Linear Algebra
3	NRES	23000	Survey of Meteorology
3	NRES	25500	Soil Science
4	PHYS	15200	Mechanics
4	PHYS	17200	Modern Mechanics
3	PHYS	21400	The Nature of Physics
4	PHYS	22000	General Physics
4	PHYS	22100	General Physics
4	PHYS	23300	Physics of Living Systems I
4	PHYS	23400	Physics of Living Systems II
3	PHYS	24100	Electricity and Optics
3	STAT	50200	Experimental Statistics II
3	STAT	51100	Statistical Methods

3	STAT	51200	Applied Regression Analysis
3	BIOL	21700	Intermediate Ecology
4	BIOL	21800	Genetics and Molecular Biology
4	BIOL	21900	Principles of Functional Biology
4	BIOL	22000	Microbiology for Allied Health Professionals
3	BIOL	23000	Biology of the Living Cell
4	BIOL	24300	Introductory Cell Biology
3	BIOL	24400	Genetics
1	BIOL	24401	Genetics Laboratory
2	BIOL	28800	Introductory Field Ecology
3	BIOL	30700	Plant Physiology
3	BIOL	31100	Introduction to Evolution
4	BIOL	31600	Basic Microbiology
3	BIOL	32200	Microbiology
2	BIOL	32300	Microbiology Laboratory
4	BIOL	33300	Ecology
4	CHM	25100	Organic Chemistry
1	CHM	25101	Organic Chemistry Laboratory
1	CHM	25200	Organic Chemistry Laboratory
1	CHM	25400	Organic Chemistry Laboratory
1	CHM	25800	Organic Chemistry Laboratory
2	CHM	26700	Organic Chemistry Laboratory Honors
2	CHM	26800	Organic Chemistry Laboratory Honors
3	CHM	33300	Principles of Biochemistry
3	MA	21300	Finite Mathematics I
3	MA	22200	Calculus for Technology II
2	MA	22800	Calculus for Technology II
3	MA	23000	Calculus for the Managerial, Social and Biological Sciences II
5	PHYS	20100	General Physics I
5	PHYS	20200	General Physics II
3	PHYS	21000	Nature of Physical Science I
4	PHYS	21800	General Physics
4	PHYS	21900	General Physics II
3	STAT	24000	Statistical Methods for Biology
3	STAT	30200	Elementary Statistical Methods II
2	BIOL	2XXXX	General Microbiology Lab

2	BIOL	2XXXX	Microbiology
2	BIOL	2XXXX	Microbiology Laboratory
3	BIOL	2XXXX	Microbiology I
3	BIOL	2XXXX	Molecular Biology
3	BIOL	3XXXX	Genetics
3	CHM	2XXXX	Prin of Organic Chemistry
3	MA	1XXXX	Finite Math
3	MA	1XXXX	Finite Mathematics
4	MA	2XXXX	Calculus II
3	MA	22200	Calculus II
3	STAT	3XXXX	Intro Probability & Statistics

CREDIT	PREFIX	NUMBER	TITLE
3	AGEC	20300	Introductory Microeconomics for Food and Agribusiness
3	AGEC	20400	Introduction to Resource Economics and Environmental Policy
3	AGEC	21700	Economics
3	ECON	21000	Principles of Economics
	ECON	21700	Economics
3	ECON	25100	Microeconomics
3	ECON	25200	Macroeconomics
3	ECON	E2010	Introduction to Microeconomics
3	ECON	E2020	Introduction to Macroeconomics
3	ECON	2XXXX	Principles of Microeconomics
<i>These courses should be evaluated. Do not provide blanket approval.</i>			