		AGS							AGS
		AS						AS	
		AA							
		Essential Skills							
Program: Liberal Arts & Sciences		*Curriculum Map*							
Program Outcomes: Upon completion of the program, graduates will be able to…	**Essential Skills**	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Courses									
ARTS 101: Drawing I	1234	IR	IR	IRMA	I		IRA		IRA
ARTS 120: Art Appreciation	12345	IRA	IRMA	IRA	IRMA	IRA	IRA		IRA
ARTS 121: History of World Art	1234	IRA	IRA	IRA	IRMA		IRMA		IRMA
DRAM 111: Acting I	1234		IRMA	IRMA	IRMA		IRMA		IRMA
GEOG 101: World Geography	1345	IRA		IR	IRA	I	IRA		IRA
HIST 102: Survey of Civilization II	12345	I	I	IR	I	I	MA		MA
HIST 103: American History to 1865	12345	IR	I	IR	IRMA	R	MA		MA
HIST 104: American History since 1865	12345	I	I	IR	R	MA	IRMA		IRMA
LITR 210: Intro to Literature	12345	IRMA	IR	IRMA	IR	IR	IRMA		IRMA
MUSC 108: Music History & Appreciation	12345	IRA	IRA	IRA	IRA		IRA		IRA
PHIL 101: Intro to Philosophy	12345	IRA	RA	IRA	I	I	IRMA		IRMA
PHIL 102: Elementary Ethics	12345	RA	RA	I	I	IR	MA		MA
SPCH 113: Interpersonal Communications	1234	IRMA	IRMA	IRMA	IR		IRMA		
BIOL 105: Principles of Biology	123	IRMA	IRMA	IRMA				IRMA	IRMA
BIOL 210: Anatomy & Physiology	13	IR		IR				IRMA	IRMA
CHEM 105: General Chemistry	1235	IR	IR	IR		I		IRMA	IRMA
CHEM 109: College Chemistry I	123	I	I	IR				IRMA	IRMA
CHEM 110: College Chemistry II	123	I	I	IRMA				IRMA	IRMA
MATH 109: Plane Trigonometry	13	IRA		IRMA				IRMA	
MATH 110: Fundamentals of Statistics	13	IRMA		IRMA				IRMA	
PHSC 105: General Physical Science	135	IR		IR		I		IRMA	IRMA
PHSC 106: Descriptive Astronomy	12345	MA	R	R	I	R		MA	MA
PHYS 205: General Physics I	123	IA	IA	IRA				IRA	IRA

PHYS 206: General Physics II	123	IA	IA	IRA				IRA	IRA
PHYS 207: Engineering Physics I	123	IA	IA	IRMA				IRMA	IRMA
PHYS 208: Engineering Physics II	123	IA	IA	IRMA				IRMA	IRMA
CRIM 101: Intro to Criminal Justice	12345	IR	IR	I	I	IRMA			IRMA
CSCI 110: Computer Concepts	1235	IA	IA	IA		I			
ECON 111: Economics: Macro	1345	IR		IRA	IR	IR			IA
ECON 112: Economics Micro	1345	IR		IR	I	I			IA
EDUC 110: Developmental Psychology	12345	I	I	IRA	IRA	I			IRMA
HPER 106: Health Education	12345	IRMA	IRMA	IRMA	IRMA	IRMA			IRMA
HPER 115: Basic Nutrition	12345	IRMA	IRMA	IRMA	IRMA	IRMA			IRMA
MATH 107: Intermediate Algebra	3			IRA					IRMA
POLS 104: Intro to Political Science	12345	IR	I	IR	IR	IR	IRMA		
POLS 105: American Government	12345	I	I	IR	R	MA			IRMA
SOCI 105: Intro to Anthropology	12345	IRA	IRA	IRA	IRA	IRA			IRMA
SOCI 210: Intro to Social Work	12345	IRA	IRA	IRA	IRA	IRA			IRMA

	AGS						AS	AGS
	AS						AS	
	AA							
ARTS 101: Drawing I	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
demonstrate fluency with a variety of drawing techniques and media		**IR**	**IRMA**	**I**		**IRA**		**IRA**
demonstrate an understanding of vocabulary specific to the discipline of drawing		**IR**	**IR**			**IRA**		**IRA**
translate observed three-dimensional forms as two-dimensional images	**IR**	**IR**	**IRMA**			**IRA**		**IRA**
demonstrate effective compositional strategies	**IR**	**IR**	**IRA**			**IRA**		**IRA**
assess the strengths and weaknesses of personal artwork and the artwork of others	**I**	**IR**	**IRMA**			**IR**		**IR**

	AGS							AGS
	AS						AS	
	AA							
ARTS 120: Art Appreciation	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
demonstrate an understanding of the terminology and conventions of visual expression.	**IRA**	**IRMA**	**IR**	**IRMA**	**IRA**	**IRA**		**IRA**
critically analyze and interpret works of art in terms of form and content.	**IRA**	**IRMA**	**IRA**	**IRMA**		**IRA**		**IRA**
communicate knowledge of art practices, meaning, values, and methods within diverse historical and cultural contexts.	**IRA**	**IR**		**IRA**	**I**	**IRA**		**IRA**
participate in the current discourse of visual arts and culture.	**IRA**	**IRMA**	**IR**	**IRMA**	**IR**	**IRA**		**IRA**

	AGS							AGS
	AS						AS	
	AA							
Course: ARTS 121: History of World Art	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
demonstrate knowledge of representative works of Western art and architecture from the prehistoric to the medieval	**IRA**	**IRA**	**IR**	**IRA**		**IRMA**		**IRMA**
analyze works of art and architecture using formal and contextual analysis	**IRA**	**IRA**	**IRA**	**IRA**		**IRMA**		**IRMA**
effectively utilize art historical vocabulary and terminology	**IRA**	**IRA**		**IRMA**		**IRMA**		**IRMA**
apply the knowledge gained in this course to evaluate and interpret works of art and architecture	**IRA**	**IRA**	**IR**	**IRA**		**IRMA**		**IRMA**

	AGS						AS	AGS
	AS							
	AA							
Course: DRAM 111: Acting I	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
1. apply acting terminology								
A. identify tools of subtext						**IRA**		**IRA**
B. define moments, goals, choices, change, and discovery.								
C. define acting, art, and craft.			**IRMA**					
D. evaluate the work of others			**IRMA**	**IRMA**				
2. utilize the actors instrument								
A. practice relaxation and concentration exercises.						**IRMA**		**IRMA**
B. practice exercises to help prepare the mind, body, and voice for performance.						**IRMA**		**IRMA**
C. utilize various methods for overcoming anxiety.		**IRMA**				**IRA**		**IRA**
3. demonstrate a systematic approach to acting.			**IRA**			**IRMA**		**IRMA**
A. utilize techniques from Stanislavski, Baker, Benedetti, Shurtleff, and or Whelan.			**IRA**			**IRMA**		**IRMA**
B. prepare and deliver expository scenes and monologues		**IRMA**						
C. prepare and deliver climactic scenes and monologues.		**IRMA**						
4. analyze a script for performance			**IRMA**	**IRMA**				

	AGS							AGS
	AS						AS	
	AA							
Course: GEOG 101: World Geography	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
define basic geographic concepts.	**IR**		**IR**			**IRA**		**IRA**
interpret geographic phenomena with maps and spatial data.	**IR**		**IR**	**I**		**IRA**		**IRA**
understand the process of regionalization.	**IR**		**IR**	**IR**		**I**		**I**
analyze human-environment interaction.	**IA**		**I**	**IRA**	**I**	**I**		**I**
evaluate global interconnectedness	**IRA**		**I**	**IRA**	**I**	**I**		**I**

	AGS							AGS
	AS						AS	
	AA							
Course: HIST 102: Survey of Civilization II	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
utilize basic tools to navigate library - prioritize analyze & synthesize historic materials	**I**							
describe & analyze change over time & global interactions	**I**		**R**	**I**		**MA**		**MA**
describe & analyze change over time & global interactions	**I**		**R**		**I**	**MA**		**MA**
prioritize, analyze and synthesize historical materials and ideas	**I**		**I**					
write and communicate clearly	**I**	**I**						

	AGS							AGS
	AS						AS	
	AA							
Course: HIST 103: American History to 1865	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
describe historical perspectives and change over time by analyzing, evaluating, and interpreting primary and secondary historical sources	**I**	**I**	**IR**			**IR**		**IR**
describe and analyze the social, political, and economic developments of the following period of American History:	**I**	**I**	**I**	**R**	**R**	**MA**		**MA**
describe major indigenous cultures of North America & evaluate impact	**I**			**I**	**R**			
describe & analyze significant political, social, economic & diplomatic development of European exploration and colonization of North America	**IR**			**IR**	**R**			
trace & evaluate causes, development & consequences of American Revolution	**I**		**I**		**R**			
describe and analyze significant events in the creation and development of	**I**		**IR**					
describe and analyze significant pollical, social, economic, and diplomatic developments, including territorial expansion and sectionalism, of antebellum America	**I**		**I**		**R**	**MA**		**MA**
trace the development of the trans-Atlantic slave trade and the practice of slavery in the American colonies, and analyze the impact of slavery on US institutions events and people	**I**		**I**	**I**	**R**			
trace & evaluate causes, development & consequences of Civil War	**I**		**I**	**IRMA**	**R**	**MA**		**MA**

describe era reconstruction and evaluate its impact	I		I	IRMA	R			

	AGS						AS	AGS
	AS						AS	
	AA							
Course: HIST 104: American History since 1865	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
describe historical perspectives and change over time by analyzing, and interpreting primary and secondary historical sources	**I**	**I**	**IR**		**R**	**MA**		**MA**
describe and analyze the social, political, and economic developments of the following periods of American History	**I**	**I**	**R**			**IRMA**		**IRMA**
describe & analyze cause, course and impact of American imperialism	**I**			**I**				
describe & analyze significant political, social, economic & diplomatic development including reform movement of modern industrial America		**I**						
trace & evaluate causes, development & consequences of WWI			**R**		**MA**	**A**		
describe & analyze significant political, social, economic & diplomatic developments of interwar years	**I**			**R**				
describe causes, course & consequences of Great Depression & New Deal and evaluate impact		**I**		**R**				
trace & evaluate causes, development & consequences of WWII	**I**		**R**		**MA**			
describe & analyze significant political, social, economic & diplomatic developments of postwar America		**I**	**R**					
describe & analyze the international role of the US in Cold War era	**I**			**R**				
describe & analyze significant political, social, economic development transformed Am. Beginning with modern Civil Rights		**I**	**IR**	**R**	**MA**			
describe & analyze post Cold-War political, social, economic & diplomatic developments	**I**		**R**					

	AGS							AGS
	AS						AS	
	AA							
Course: LITR 210: Intro to Literature	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
demonstrate an awareness of the complexity and diversity of human experience as expressed through literature.	**IRA**	**IR**	**IRA**	**IR**	**IR**			
analyze the interactions of reader and writer to discern meaning.	**IRA**	**IR**	**IR**	**IR**	**IR**	**IRMA**		**IRMA**
articulate the distinctive features of various genres.	**IR**	**IR**	**IR**					
apply modes of critical inquiry specific to the discipline.	**IRA**	**IR**	**IRA**	**IR**	**IR**	**IRMA**		**IRMA**
compose thoughtful literary analysis using appropriate terminology and conventions.	**IRMA**		**IRMA**			**IRMA**		**IRMA**

	AGS / AS / AA						AS	AGS
Course: MUSC 108: Music History & Appreciation	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
identify and describe the elements of melody, harmony, pitch, rhythm, timbre, texture, form, and dynamics.	**IRA**	**IRA**	**IRA**			**IRA**		**IRA**
identify the expressive qualities of the elements of music through listening experiences.	**IRA**	**IRA**	**IRA**			**IRA**		**IRA**
describe the general characteristics of musical genres and the relationship to their cultural/historical settings.	**IRA**	**IRA**	**IRA**	**IRA**		**IRA**		**IRA**
demonstrate knowledge of musical artists, composers, and compositions related to the context of the course.	**IRA**	**IRA**	**IRA**			**IRA**		**IRA**
critically evaluate the role of music in their lives.	**IRA**	**IRA**	**IRA**		**IRA**	**IRA**		**IRA**

	AGS						AS	AGS
	AS						AS	
	AA							
Course: PHIL 101: Intro to Philosophy	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
recognize the significance of philosophy in a broader cultural and historical context.				I	I			
show familiarity with the development of various philosophical tradition during some of their major periods.			I					
recognize key characteristics of philosophical inquiry such as its emphasis on careful reasoning and analysis and how it differs form other kinds of inquiry.			IR			I		I
demonstrate familiarity with and understanding of basic philosophical theories, terminology and concepts.	I	RA				IR		IR
show familiarity with at least one of the major divisions of Philosophy as determined by the individual instructor.		RA				MA		MA
demonstrate understanding of major philosophical theories within historical periods, schools of thought, or problems within philosophy as chosen by instructor.	RA		I					
identify and develop in writing philosophical analyses and arguments based on philosophical reasoning.	RA					MA		MA
distinguish between valid and fallacious arguments and recognize examples of each.			I					
provide cogent reasons in support of contentious philosophical claims.			IR					
evaluate in writing philosophical analyses, arguments, and texts and appreciate alternative points of view	RA					MA		MA

show familiarity with some classic philosophical arguments within historical periods, within schools of thought, or within problems in philosophy.			IR		I			
be familiar with a variety of philosophical positions on contentious issues such a the nature of the mind, the sources of knowledge, and the nature of the good.			I					
evaluate competing theories and arguments, providing their own positions supported by valid arguments			RA		I	MA		MA

	AGS						AS	AGS
	AS						AS	
	AA							
Course: PHIL 102: Elementary Ethics	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
recognize the significance of moral philosophy in a broader context			**I**					
show familiarity with the philosophical development of various normative ethical theories.			**I**	**I**	**R**			
recognize key characteristics of philosophical inquiry such as its emphasis on careful reasoning and analysis and how it differs from other kinds of inquiry			**I**					
apply moral theories to ethical problems			**I**	**I**	**R**			
identify and explain basic ethical theories, terminology and concepts			**I**	**I**	**R**			
demonstrate an understanding of major normative ethical theories, schools of thought, or problems within ethics as chosen by the instructor	**RA**		**I**			**MA**		**MA**
explain key ethical terms as understood within ethical theories or as applied to ethical problems.		**RA**	**I**					
identify and develop in writing philosophical analyses and arguments based on philosophical reasoning and provide cogent reasons in support of competing philosophical claims.	**RA**		**I**		**I**	**MA**		**MA**
evaluate in writing philosophical arguments and texts focusing on moral theories and problems and state alternative points of view, providing their own positions supported by cogent arguments.	**RA**		**I**		**I**	**MA**		**MA**

	AGS						AS	AGS
	AS						AS	
	AA							
Course: SPCH 113: Interpersonal Communications	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
demonstrate an ability to apply effective communication techniques within a variety of contexts.	**IRAM**		**IRMA**	**IR**			**IR**	
demonstrate an understanding of various effective conflict management skills.	**IRMA**	**IR**	**IR**	**IR**				
demonstrate an understanding of the impact of gender and culture on interpersonal communication.	**IR**	**IR**	**IR**	**IR**				
demonstrate an ability to analyze effective listening habits and skills.	**IRMA**	**IR**	**IRMA**	**IR**		**IR**		
evaluate the role of verbal and nonverbal messages in interpersonal communication.	**IRMA**	**IR**	**IR**	**IR**				
recognize the role of perception of self and others in interpersonal communication.	**IRMA**	**IR**	**IR**	**IR**				
create a resume reflecting current employability preparedness.	**IRMA**	**IRMA**	**IR**			**IRMA**		
construct an employment interviewing experience to present to the class	**IR**	**IRMA**	**IR**			**IRMA**		

	AGS						AS	AGS
	AS							
	AA							
Course: BIOL 105: Principles of Biology	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
demonstrate an understanding of the nature of science: scientific processes, scientific methods							**IR**	**IR**
demonstrate an understanding of the levels of organization and emergent properties of life: Chemical, Cellular, Organ/organ system, organismal, ecological	**IRMA**	**IR**					**MA**	**MA**
demonstrate an understanding of bioenergetics: Enzyme activity, metabolism, cellular respiration/photosynthesis			**IRMA**					
demonstrate an understanding of the importance of reproduction in maintaining the continuity of life: Mitosis, meiosis, differentiation/development, diversity of reproductive strategies								
demonstrate an understanding of applying the principles of genetics to unity and diversity of life: Classical genetics, molecular genetics.		**MA**						
demonstrate an understanding of discussing evolution as the mechanism of change in biology: Natural selection, Speciation, Diversity of life/classification							**IRMA**	**IRMA**
demonstrate an understanding of the principles of ecology: Ecosystem organization, Ecological interactions, Environmental issues							**IRMA**	**IRMA**

	AGS	AS	AA				AS	AGS
Course: BIOL 210: Anatomy & Physiology	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
Body Plan & Organization - Upon completion of this section the student will be able to demonstrate measurable understanding of descriptive anatomical and directional terminology including the following topics - anatomical position, - body planes, sections, body cavities & regions, directional terms, basic terminology, levels of organization, survey of body systems							**IR**	**IR**
Homeostasis - Upon completion of this section the student will be able to demonstrate measurable understanding of the basic concept of homeostasis and how homeostatic mechanisms apply to body systems including the following topics - general types of homeostatic mechanisms, examples of homeostatic mechanisms, application of homeostatic mechanisms, predictions related to homeostatic imbalance, including disease states & disorders	**IR**		**IR**				**IR**	**IR**

Chemistry & Cell Biology Review - Upon completion of this section the student will be able to demonstrate measurable understanding of basic chemistry and cellular structures and function, including the following topics - - atoms & molecules, chemical bonding, inorganic compounds/solutions (including the concept of pH), organic compounds, energy transfer using ATP, intracellular organization of nucleus and cytoplasm, membrane structure & function, mechanisms for movement of materials across cellular membranes, organelles, protein synthesis, cellular respiration (introduction), somatic cell division (mitosis & cytokinesis), reproductive cell division, application of homeostatic mechanisms, predictions related to homeostatic imbalance, including disease states and disorders							MA	MA
Histology - Upon completion of this section the student will be able to demonstrate measurable understanding of the basic tissues of the body, their location and functions, including the following topics - overview of histology & tissue types, microscopic anatomy, location, & functional roles of epithelial, connective, muscular and nervous tissues, membranes (mucous, serous, cutaneous & synovial), glands (exocrine & endocrine), and tissue injury & repair								

Integumentary System - Upon completion of this section the student will be able to demonstrate measurable understanding of major gross and microscopic anatomical components of the integumentary system and describe the functions of the system, including the following topics - general functions of the skin & the subcutaneous layer, gross & microscopic anatomy of the skin, roles of the specific tissue layers of the skin & subcutaneous layer, anatomy & functional roles of accessory structures, application of homeostatic mechanisms, and predictions related to homeostatic imbalance, including disease states & disorders							**IRMA**	**IRMA**
Skeletal System - Upon completion of this section the student will be able to demonstrate measurable understanding of major gross and microscopic anatomical components of the skeletal system and explain their functional roles in osteogenesis, repair, and body movement, including the following topics, general functions of bone & the skeletal system, structural components – microscopic anatomy, structural components, gross anatomy, physiology of embryonic bone formation (ossification, osteogenesis), physiology of bone growth, repair & remodeling' organization of the skeletal system - gross anatomy of bones, classification, structure & function of joints (articulations), application of homeostatic mechanisms, predictions related to homeostatic imbalance, and including disease states & disorders								

Muscular System - Upon completion of this section the student will be able to demonstrate measurable understanding of major gross and microscopic anatomical components of the muscular system and explain their functional roles in body movement, maintenance of posture, and heat production, including the following topics - general functions of muscle tissue, identification, general location, & comparative characteristics of skeletal, smooth, & cardiac muscle tissue, detailed gross & microscopic anatomy of skeletal muscle, physiology of skeletal muscle contraction, skeletal muscle metabolism, principles & types of whole muscle contraction, nomenclature of skeletal muscles, location & function of skeletal muscles, group actions of skeletal muscles, lever systems, application of homeostatic mechanisms, and predictions related to homeostatic imbalance, including disease states & disorders							**IRMA**	**IRMA**

Nervous System - Upon completion of this section the student will be able to demonstrate measurable understanding of the major gross and microscopic anatomical components of the nervous system and explain their functional roles in communication, control, and integration, including the following topics - general functions of the nervous system, organization of the nervous system from both anatomical & functional perspectives, gross & microscopic anatomy of the nerve tissue, neurophysiology, including mechanism of resting membrane potential, production of action potentials, & impulse transmission, neurotransmitters& their roles in synaptic transmission, sensory receptors & their roles, division, origin, & function of component parts of the brain, protective roles of the cranial bones, meninges, & cerebrospinal fluid, structure & function of cranial nerves, anatomy of the spinal cord & spinal nerves, reflexes & their roles in nervous system function, physiology of sensory & motor pathways in the brain & spinal cord, functions							**IRMA**	**IRMA**

Special Senses - Upon completion of this section the student will be able to demonstrate measurable understanding of the major gross and microscopic anatomical components of the eye and ear and explain their functional roles in vision, hearing and equilibrium - Students should also be able to identify and locate the receptors responsible for olfaction and gustation and briefly describe the physiology of smell and taste, including the following topics- gross & microscopic anatomy of the eye & ear, roles of specific tissues of the eye in vision, roles of specific tissues of the ear in hearing & equilibrium, olfactory receptors & their role in smell, gustatory receptors & their role in taste, general gross & microscopic anatomy of hearing & accessory structures of the ear, roles of specific tissues of the ear in hearing, roles of the accessory structures, role of the ear in equilibrium, application of homeostatic mechanisms, and predictions related to homeostatic imbalance, including disease states & disorders							**IRMA**	**IRMA**

Endocrine System - Upon completion of this section the student will be able to demonstrate measurable understanding of the major gross and microscopic anatomical components of the endocrine system and explain the functional roles of their respective hormones in communication, control, and integration, including the following topics - general functions of the endocrine system, chemical classification of hormones & mechanism of hormone actions at receptors, control of hormone secretion, control by the hypothalamus& pituitary gland, identity, source, secretory control, & functional roles of the major hormones produced by the body, local hormones (paracrines & autocrines) & growth factors, hormonal response to stress, application of homeostatic mechanisms, predictions related to homeostatic imbalance, including disease states & disorders, **Note: Since the endocrine system plays a key role in the regulation and integration of body organ systems, detailed aspects of endocrine system function may be emphasized throughout the course.**								

Cardiovascular System - Upon completion of this section the student will be able to demonstrate measurable understanding of the major gross and microscopic anatomical components of the cardiovascular system and explain their functional roles in transport and hemodynamics, including the following topics. Topics include - general functions of the cardiovascular system, general functions of the cardiovascular system, composition of blood plasma - identity, microscopic anatomy, numbers, formation, & functional roles of the formed elements of the blood, hemostasis, including coagulation of the blood, ABO & Rh blood grouping, gross & microscopic anatomy of the heart, including the conduction system, physiology of cardiac muscle contraction - blood flow through the heart, conduction system of the heart & the electrocardiogram, cardiac cycle, regulation of cardiac output, stroke volume & heart rate, anatomy & functional roles of the different types of blood vessels, pattern of blood circulation throughout the body, including systemic, pulmonary, coronary, hepatic portal, & fetal							**IRMA**	**IRMA**

Lymphatic System & Immunity - Upon completion of this section the student will be able to demonstrate measurable understanding of the major gross and microscopic anatomical components of the lymphatic system and explain their functional roles in fluid dynamics and immunity, including the following topics - general functions of the lymphatic system, general functions of the lymphatic system, lymph & lymphatic vessels, lymphatic cells, tissues, & organs, introduction to innate (nonspecific) defenses & adaptive (specific) defenses, innate (nonspecific) defenses, overview of adaptive (specific) defenses, antigens & antigen processing, lymphocytes & their role in adaptive immunity, antibodies & their role in adaptive immunity, applied immunology, application of homeostatic mechanisms, and predictions related to homeostatic imbalance, including disease states & disorders								
Respiratory System - Upon completion of this section the student will be able to demonstrate measurable understanding of the major gross and microscopic anatomical components of the respiratory system and explain their functional roles in breathing/ventilation and in the processes of external and internal respiration, including the following topics - general functions of the respiratory system, gross & microscopic anatomy of the respiratory tract & related organs, mechanisms of pulmonary ventilation - pulmonary air volumes & capacities, mechanisms of gas exchange in lungs & tissues, mechanisms of gas transport in the blood, control of pulmonary ventilation, application of homeostatic mechanisms, and predictions related to homeostatic imbalance, including disease states & Disorders							**IRMA**	**IRMA**

Digestive System - Upon completion of this section the student will be able to demonstrate measurable understanding of the major gross and microscopic anatomical components of the digestive system and explain their functional roles in digestion, absorption, excretion and elimination, including the following topics - general functions of the digestive system, gross & microscopic anatomy of the alimentary canal, gross & microscopic anatomy of the accessory glands & organs, peritoneum & mesenteries, motility in the alimentary canal, mechanical & chemical processes of digestion, processes of absorption, hormonal & neural regulation of digestive processes, application of homeostatic mechanisms, and predictions related to homeostatic imbalance, including disease states & disorders							**IRMA**	**IRMA**
Metabolism - Upon completion of this section the student will be able to demonstrate measurable understanding of the functional relationship among cellular, tissue and organ level metabolism, the role nutrition plays in metabolism, and the mechanisms by which metabolic rate is regulated in the body, including the following topics – nutrition, introduction to metabolism, cellular respiration & the catabolism & anabolism of carbohydrates, lipids, & proteins, metabolic roles of body organs, energy balance & thermoregulation, application of homeostatic mechanisms, and predictions related to homeostatic imbalance, including disease states & disorders							**IRMA**	**IRMA**

Urinary System - Upon completion of this section the student will be able to demonstrate measurable understanding of the major gross and microscopic anatomical components of the urinary system and explain their functional roles, including the following topics, general functions of the urinary system, gross & microscopic anatomy of the urinary tract, including detailed histology of the nephron, functional processes of urine formation, including filtration, reabsorption, secretion, & excretion, factors regulating & altering urine volume & composition, including the renin-angiotensin system and the roles of aldosterone& antidiuretic hormone, endocrine activities of the kidneys, such as vitamin D activation & secretion of erythropoietin, and innervation & control of the urinary bladder								
Fluid/Electrolyte& Acid/Base Balance - Upon completion of this section the student will be able to demonstrate measurable understanding of the physiology of the homeostatic mechanisms that control fluid/electrolyte and acid/base balance, including the following topics- regulation of water intake & output, description of the major fluid compartments, including intracellular, extracellular, intravascular, & interstitial, volume & chemical composition of major compartment fluids, movements between the major fluid compartments, causal forces, volumes, & electrolyte balance, buffer systems & their roles in acid/base balance, role of the respiratory system in acid/base balance, and role of the urinary system in acid/base balance							**IRMA**	**IRMA**

Reproductive Systems - Upon completion of this section the student will be able to demonstrate measurable understanding of the major gross and microscopic anatomical components of the reproductive system and explain their functional roles in reproduction and inheritance, including the following topics - general functions of the male & female reproductive systems, gross & microscopic anatomy of the male & female reproductive systems, gametogenesis, specific roles of the female reproductive organs, specific roles of the female reproductive organs, regulation of reproductive functions, conception, pregnancy, & embryological & fetal development, parturition & labor, and mammary gland anatomy & physiology								

	AGS						AS	AGS
	AS						AS	
	AA							
Course: CHEM 105: General Chemistry	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
develop knowledge about periodic properties of elements								
master inorganic nomenclature and the metric system							**IR**	**IR**
develop problem-solving skills			**I**					
develop skills in group interaction and collaborative learning.								
understand basic principles of stoichiometry, physical/chemical changes, gases, acids/bases, energetics, and solutions.								
develop laboratory skills including safety skills, measurements skills, and methods of inquiry in the laboratory settings.			**R**				**MA**	**MA**
develop understanding of atomic and molecular structure and bonding.								
appreciate the role of chemistry in society and industry and understand the relationship chemistry has with other sciences and the use of chemistry in technology.					**I**			
gain experience in both written and oral scientific reports.	**IR**	**IR**						

Course: CHEM 109: College Chemistry I	*Curriculum Map*							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
demonstrate proficiency in the Metric System, significant figures, and density.							**IR**	**IR**
demonstrate proficiency in formula writing and balancing equations.								
demonstrate proficiency in chemical structure and bonding.			**I**					
demonstrate proficiency in using the gas laws.			**R**					
demonstrate proficiency in acid and base chemistry.								
demonstrate proficiency in understanding the energy of reactions.								
demonstrate proficiency in dealing with solutions and two-phase systems.								
demonstrate proficiency in chemical equilibrium.							**MA**	**MA**
demonstrate an understanding of redox reactions and electrochemistry.	**I**	**I**						

	AGS						AS	AGS
	AS						AS	
	AA							
Course: CHEM 110: College Chemistry II	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
describe the basic (colligative) properties of solutions							**IR**	**IR**
describe the fundamentals of acid/base equilibria, including pH calculations, buffer behavior, acid/base titrations, and their relationship to electrophiles and nucleophiles								
describe the thermodynamic and kinetic forces involved in chemical reactions which determine how much and how soon products are formed								
describe the basics of electrochemistry, and the relationship of electrical parameters to thermodynamic and stoichiometric parameters							**MA**	**MA**
describe current bonding models for simple inorganic and organic molecules in order to predict structures and important bonding parameters			**I**				**IR**	**IR**
describe general periodicity patterns of (organic/inorganic) molecules, and the ability to design synthetic approaches to such species			**RMA**					
describe solubility and complex ion equilibria								
describe the basic aspects of nuclear chemistry	**I**	**I**					**MA**	**MA**

	AGS AS AA						AS	AGS
Course: MATH 109: Plane Trigonometry	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
define the trigonometric functions using both a right triangle and the unit circle.							**IRMA**	
define and interpret radian measurement. Recognize and apply circular functions as real-valued functions.							**IRMA**	
solve for unknown sides/angles within right triangles and know trigonometric function values for special angles (multiples of $\pi/6$ and $\pi/4$).							**IRMA**	
analyze the graphs of the six basic trigonometric functions and their arithmetic combinations using the concepts of period, phase shift, amplitude, and displacement.							**IRMA**	
derive/verify trigonometric identities, including but not limited to double angle, half angle, angle sum, and angle difference identities.	**IRA**		**IRA**				**IRMA**	
define, graph, and apply inverse trigonometric functions.							**IRMA**	
solve equations involving trigonometric functions.							**IRMA**	
find solutions of oblique triangles using the Law of Cosines or Law of Sines.							**IRMA**	
solve applied problems including but not limited to vectors.			**IRMA**				**IRA**	
derive the trigonometric form of complex numbers and perform calculations with them including products and quotients.			**IR**				**IRA**	
translate between rectangular and polar coordinates and graph within the polar coordinate system.							**IRA**	

	AGS AS AA						AS	AGS
Course: MATH 110: Fundamentals of Statistics	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
create graphical and numerical descriptions of quantitative and qualitative data.	**RMA**		**RMA**				**IRA**	
calculate probabilities and percentiles related to a general normal distribution.							**IRMA**	
distinguish differences in data analysis and interpretation between observational data and data from designed experiments.			**I**				**IRMA**	
calculate and interpret a confidence interval for a single parameter, using both large and small samples.	**IRMA**		**IRMA**				**IRMA**	
perform and interpret a test of hypotheses for a single parameter, using both large and small samples.	**IRMA**		**IRMA**				**IRMA**	
perform and interpret statistical inference on the difference of two parameters.	**IRMA**		**IRMA**				**IRMA**	
fit and interpret a simple linear regression model, including correlation and scatterplots.	**IRMA**		**IRMA**				**IRMA**	

	AGS						AS	AGS
	AS						AS	
	AA							
Course: PHSC 105: General Physical Science	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
demonstrate a knowledge of physics principles including: forces, light, motion, electricity, heat & conservation of energy, and the nature of matter.							**I**	**I**
demonstrate a knowledge of chemistry principles including: ionic & molecular nomenclature, the nature of the atom, bonding, energetics, and chemical reactions.							**MA**	**R**
analyze physics and chemistry problems, demonstrate problem solving skills, and be able to carry out calculations.			**I**					
demonstrate a knowledge of the formation and occurrence of rocks and minerals, the actions of streams, oceans, glaciers, and modification of the landscape through mountain building, earthquakes, and volcanoes.								
demonstrate proper laboratory techniques and safety practices.					**I**		**MA**	**MA**
effectively communicate laboratory findings through written laboratory reports.	**IR**		**R**					

	AGS						AS	AGS
	AS						AS	
	AA							
Course: PHSC 106: Descriptive Astronomy	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
identify the main contributions of Copernicus, Tycho, Galileo and Kepler.	**MA**	**R**	**R**	**I**	**R**			
state and apply Kepler laws of Planetary motion; Newton's and Universal laws of Gravitation	**MA**	**R**	**R**	**I**	**R**			
explain the design, function and types of Telescopes and also the significance of Astronomical Observations	**MA**	**R**	**R**	**I**	**R**		**MA**	**MA**
describe the scale, structure, and properties of Solar System, Asteroids, Meteors, Comets.	**MA**	**R**	**R**	**I**	**R**			
compare the structural properties of Earth and the Moon	**MA**	**R**	**R**	**I**	**R**			
compare & identify atmospheres & structural characteristics of Mercury, Venus, Earth and Mars	**MA**	**R**	**R**	**I**	**R**			
compare structure, properties, composition, similarities & differences among the four Jovian planets - Jupiter, Saturn, Uranus, and Neptune.	**MA**	**R**	**R**	**I**	**R**			
describe the measurement of Celestial objects and relative motions & phases of Earth, the Sun, and the Moon leading to eclipses	**MA**	**R**	**R**	**I**	**R**		**MA**	**MA**

	AGS / AS / AA						AS	AGS
Course: PHYS 205: General Physics I	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
evaluate situations involving Physics I topics by choosing the appropriate conceptual frameworks.	**IA**	**IA**	**IRA**				**IRA**	**IRA**
recall relevant physical models and to successfully apply these models using techniques of symbolic and numerical analysis in order to generate solutions to problems in Physics I topics.	**IA**	**IA**	**IRA**				**IRA**	**IRA**
think critically by utilizing problem solving techniques to evaluate and analyze context rich, multi-step problems in Physics I topics, selecting relevant information, selecting an approach to solving the problem and carrying out the analysis needed to generate and communicate solution(s).	**IA**	**IA**	**IRA**				**IRA**	**IRA**
perform measurements using physical apparatus, analyze the collected data including appropriate treatment of errors and uncertainties, generate and communicate conclusions based on the data and analysis for experimental investigations in Physics I topics.	**IA**	**IA**	**IRA**				**IRA**	**IRA**

	AGS						AS	AGS
	AS						AS	
	AA							
Course: PHYS 206: General Physics II	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
evaluate situations involving Physics II topics by choosing the appropriate conceptual frameworks.	**IA**	**IA**	**IRA**				**IRA**	**IRA**
recall relevant physical models and to successfully apply these models using techniques of symbolic and numerical analysis in order to generate solutions to problems in Physics II topics.	**IA**	**IA**	**IRA**				**IRA**	**IRA**
think critically by utilizing problem solving techniques to evaluate and analyze context rich, multi-step problems in Physics II topics, selecting relevant information, selecting an approach to solving the problem and carry out the analysis needed to generate and communicate solution(s).	**IA**	**IA**	**IRA**				**IRA**	**IRA**
perform measurements using physical apparatus, analyze the collected data including appropriate treatment of errors and uncertainties, generate and communicate conclusions based on the data and analysis for experimental investigations in Physics II topics.	**IA**	**IA**	**IRA**				**IRA**	**IRA**

	AGS / AS / AA	AGS / AS / AA	AGS / AS / AA	AGS / AS / AA	AGS / AS / AA	AGS / AS	AS	AGS
Course: PHYS 207: Engineering Physics I	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
evaluate situations involving Engineering Physics I topics by choosing the appropriate conceptual frameworks.	**IA**	**IA**	**IRMA**				**IRMA**	**IRAMA**
recall relevant physical models and to successfully apply these models using techniques of symbolic and numerical analysis in order to generate solutions to problems in Engineering Physics I topics.	**IA**	**IA**	**IRMA**				**IRMA**	**IRAMA**
think critically by utilizing problem solving techniques to evaluate and analyze context rich, multi-step problems in Engineering Physics I topics, selecting relevant information, selecting an approach to solving the problem and carrying out the analysis needed to generate and communicate solution(s).	**IA**	**IA**	**IRMA**				**IRMA**	**IRAMA**
perform measurements using physical apparatus, analyze the collected data including appropriate treatment of errors and uncertainties, generate and communicate conclusions based on the data and analysis for experimental investigations in Engineering Physics I topics.	**IA**	**IA**	**IRMA**				**IRMA**	**IRAMA**

	AGS						AS	AGS
	AS						AS	
	AA							
Course: PHYS 208: Engineering Physics II	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
evaluate situations involving Engineering Physics II topics by choosing the appropriate conceptual frameworks.	**IA**	**IA**	**IRMA**				**IRMA**	**IRMA**
recall relevant physical models and to successfully apply these models using techniques of symbolic and numerical analysis in order to generate solutions to problems in Engineering Physics II topics.	**IA**	**IA**	**IRMA**				**IRMA**	**IRMA**
think critically by utilizing problem solving techniques to evaluate and analyze context rich, multi-step problems in Engineering Physics II topics, selecting relevant information, selecting an approach to solving the problem and carry out the analysis needed to generate and communicate solution(s).	**IA**	**IA**	**IRMA**				**IRMA**	**IRMA**
perform measurements using physical apparatus, analyze the collected data including appropriate treatment of errors and uncertainties, generate and communicate conclusions based on the data and analysis for experimental investigations in Engineering Physics II topics.	**IA**	**IA**	**IRMA**				**IRMA**	**IRMA**

AGS
AS
AA
AS
AGS

Course: CRIM 101	*Curriculum Map*							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
summarize the historical, theoretical and philosophical developments in criminal justice.								
identify and discuss the steps in the criminal justice process.		**IR**	**I**					**IRMA**
distinguish the goals and philosophies of the due process and the crime control models of criminal justice.								
identify the ethical responsibilities and constitutional duties of the criminal justice professional.			**I**	**I**	**IRMA**			
summarize how law enforcement, courts and corrections operate and interact	**IR**							**I**
explain the importance of empirical date in criminal justice policy.								

	AGS						AS	AGS
	AS						AS	
	AA							
Course: CSCI 110: Computer Concepts	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
identity the specifications and configurations of computer hardware								
identity the role of an operating system								
use the Internet to find information and determine its credibility								
use word processing software to create, edit and produce professional documents	**IA**							**IRMA**
create spreadsheets and charts for problem-solving			**IA**					
utilize a database								
use presentation software to create, edit and produce professional presentations		**IA**						**IRMA**
identify the ethical and social standards of conduct regarding the use of information and technology					**I**			
identify security threats and solutions								

	AGS						AS	AGS
	AS						AS	
	AA							
Course: ECON 111: Economics: Macro	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
demonstrate the economic way of thinking including scarcity, opportunity cost, production possibility and marginal analysis	**IR**		**IR**	**I**	**I**			**IA**
utilize the supply and demand model to analyze market outcome	**IR**		**IR**		**I**			**IA**
apply the key macroeconomic indicators used to interpret the performance of the aggregate economy including output, price level, and employment.	**IRA**		**IRA**	**IR**	**IR**			**IA**
utilize economic models to explain changes in short-run fluctuations and long-term growth	**IR**		**IR**	**IR**	**IR**			
evaluate the impacts of fiscal policy on the macroeconomy	**IR**		**I**		**I**			**IA**
define money and banking, then evaluate the impacts on the monetary policy on the macroeconomy	**IR**		**I**					**IA**

	AGS						AS	AGS
	AS						AS	
	AA							
Course: ECON 112: Economics Micro	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
demonstrate the economic way of thinking including scarcity, opportunity cost, production possibility, and marginal analysis	**IR**		**IR**	**I**	**I**			**IA**
utilize the supply and demand model, including elasticity, to analyze market outcomes	**IR**		**IR**		**I**			**IA**
determine the functional relationships between production and costs	**IR**		**IR**					**IA**
compare and contrast the operation of different market structures.	**IRA**		**IA**		**I**			**IA**
identify the causes and explain effects of market failures.	**IR**		**IR**		**I**			**IA**

	AGS						AS	AGS
	AS						AS	
	AA							
Course: EDUC 110: Developmental Psychology	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
differentiate developmental theories and research methods.	**I**	**I**	**IRA**					
describe the social and emotional development throughout the life span.	**I**		**IRA**	**IRA**	**I**			**IRMA**
recognize cognitive and neurological development throughout the life span.	**I**		**IRA**					**IRMA**
identify physical development throughout the life span.	**I**		**IRA**					**IRMA**
analyze the processes of death and dying.	**I**		**IRA**	**IRA**	**I**			

	AGS / AS / AA						AS	AGS
Course: HPER 106: Health Education	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
gather, analyze and utilize information to make decisions that promote personal and community health and wellness.	**IRMA**	**IRMA**	**IRMA**	**IRMA**			**IRMA**	**IRMA**
differentiate among dimensions of wellness as they apply to overall health.	**IRMA**	**IRMA**	**IRMA**	**IRMA**			**IRMA**	**IRMA**
demonstrate the knowledge and skills for developing personal responsibility in health choices and quality of life.	**IRMA**	**IRMA**	**IRMA**	**IRMA**			**IRMA**	**IRMA**
recognize the importance of demographic diversity as it applies to health and wellness issues.	**IRMA**	**IRMA**	**IRMA**	**IRMA**			**IRMA**	**IRMA**

	AGS AS AA						AS	AGS
Course: HPER 115: Basic Nutrition	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
identify the six classes of nutrients and their sources.	**IRMA**	**IRMA**	**IRMA**	**IRMA**			**IRMA**	**IRMA**
demonstrate an understanding of the processes of digestion, absorption, and metabolism of nutrients.	**IRMA**	**IRMA**	**IRMA**	**IRMA**			**IRMA**	**IRMA**
employ available resources to make sound nutritional choices.	**IRMA**	**IRMA**	**IRMA**	**IRMA**			**IRMA**	**IRMA**
explain energy balance and weight control as it relates to nutrition and wellness.	**IRMA**	**IRMA**	**IRMA**	**IRMA**			**IRMA**	**IRMA**
describe nutritional needs throughout the lifespan.								
recognize global food safety, security, and sustainability issues.								

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Course: MATH 107: Intermediate Algebra	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
factor quadratic expressions, expressions of quadratic form, special forms, and factor by grouping.								
perform addition, subtraction, multiplication, and division on rational expressions.								**IRA**
simplify complex fractions.								
apply the laws of exponents to simplify expressions containing rational exponents.								**IRA**
apply the laws of radicals to perform addition, subtraction, and multiplication on expressions involving radicals. Rationalize denominators containing radicals.								**IRA**
simplify radicals containing negative radicands. Perform arithmetic operations on complex numbers.								
evaluate functions using function notation.								**IRA**
solve linear inequalities in one variable showing solutions both on the real number line and in interval notation.								**IRA**
solve literal equations, including those that require factoring.								**IRA**
solve systems of linear equations in two variables.								**IRA**
solve equations by factoring and quadratic formula.								**IRA**
solve equations containing rational expressions.								**IRA**
solve equations involving radicals.								**IRA**
solve linear absolute value equations and inequalities in one variable.								

develop and solve mathematical models including variation, mixture, motion, work, and geometrical applications.			IRA					IRMA
graph linear inequalities.								IRA
graph quadratic functions.								IRA
determine an equation of a line given either sufficient information (two points) or a particular condition (perpendicular to a given line, parallel to a given line through a specific point, through a specific point with a given slope, etc.).								IRMA
calculate the distance between two points.								IRA
distinguish between functions and relations using the Vertical Line Test								
identify the domain and range of a function given its graph								

	AGS						AS	AGS
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	AA							
Course: POLS 104: Intro to Political Science	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
exhibit an understanding of the meaning of politics	**I**	**I**	**I**		**I**			
explain the role of political systems in society	**IR**				**I**			
explain the nature and purpose of political science as a discipline	**I**	**I**	**IR**		**IR**	**IRMA**		
differentiate between the various sub-fields		**I**	**IR**	**IR**				
understand the ideas and concepts that shape the study of political science	**I**		**IR**	**IR**		**IRMA**		

	AGS						AS	AGS
	AS						AS	
	AA							
Course: POLS 105: American Government	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
identify, distinguish, and analyze the roles, powers, and relationships among the 3 branches of government.			**I R**		**MA**	**IRMA**		**IRMA**
identify forms of political participation, differentiate among organizations engaged in elections and analyze participation in US democracy.			**IR**		**MA**	**IRMA**		**IRMA**
understand and analyze how policy decisions are made and the impact of policy on the public.	**I**		**R**	**R**	**MA**	**IRMA**		**IRMA**
explain the origins and the evolution of US Constitutional Democracy.	**I**	**I**	**R**	**R**	**MA**	**IRMA**		**IRMA**

	AGS						AS	AGS
	AS						AS	
	AA							
Course: SOCI 105: Intro to Anthropology	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
define and apply key anthropological concepts, including: culture, ethnocentrism, cultural relativism, and holism.	**IRA**		**IRA**	**IRA**	**IRA**			
describe key anthropological methods, such as: ethnographic fieldwork, interview techniques, and participant observation.	**IRA**	**IRA**	**IRA**	**IRA**	**IRA**			
define the concept of culture and discuss specific examples of how it is learned, shared and transmitted through symbolic systems including language.			**IRA**	**IRA**	**IRA**			**IRMA**
demonstrate knowledge of several cultural traditions through exposure to ethnographic analysis.			**IRA**	**IRA**	**IRA**			
identify and explain different anthropological perspectives on cultural change and continuity.			**IRA**	**IRA**	**IRA**			
identify ways in which different aspects of culture, including environment, economy, kinship, the arts, politics, religions and other belief systems, are interrelated and integrated in a cultural system.	**IRA**	**IRA**	**IRA**	**IRA**	**IRA**			**IRMA**
describe and give examples of the effects of colonialism and globalization on world cultures.			**IRA**	**IRA**	**IRA**			

	AGS						AS	AGS
	AS						AS	
	AA							
Course: SOCI 210: Intro. to Social Work	***Curriculum Map***							
Program Outcomes	**illustrate written communication skills.**	**demonstrate oral communication skills.**	**develop critical thinking skills.**	**develop awareness of diversity.**	**develop an awareness of social responsibility.**	**apply tools, technologies, and methods common to the humanities & fine arts.**	**apply tools, technologies, and methods common to the areas of mathematics and sciences.**	**apply tools, technologies, and methods common across a variety of interrelated disciplines.**
Course SLO: Students will be able to								
define & describe social work - what it is, what it does, and with whom, in what areas of human functioning, in what context, and with what focus.	**IRA**		**I**	**I**	**I**			
compare and contrast social work from other helping professions (e.g. psychology, applied sociology, psychiatry, etc.); professional social work from volunteer helping; profession from occupation; and social service organizations from other organizations.	**IRA**	**IRA**	**IRA**	**IRA**	**IRA**			**IRMA**
identify and critically examine the philosophical and historical roots of social work and social welfare.			**IR**					
identify common fields of generalist practice at the various levels of social work interventions (e.g. individuals, families, groups, organizations, and communities).	**I**							
identify the social work professional's core values and ethical principles and compare and contrast with the individual student's values and those values held in society (NASW Code of Ethics)			**I**	**IRA**	**IRA**			**IRMA**
identify core theories and research that guide social work and social welfare policies, frameworks, perspectives, and generalist practice methods.	**I**							
identify and examine social and economic justice issues addressed by the social work and social welfare profession, especially those related to poverty, inequality, racism, sexism, homophobia, ageism, and other forms of oppression at the micro, mezzo, and macro levels.	**I**	**I**	**I**	**IRA**	**IR**			