# **Student Learning Outcomes**

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# **ABDR**

# ABDR 1203 - Vehicle Design and Structural Analysis (WECM)

- 1. Evaluate vehicle designs.
- 2. Demonstrate measuring competencies.
- 3. Apply shop safety practices.

# ABDR 1301 – Auto Body Repair and Repainting (WECM)

- 1. Utilize hand and power tools.
- 2. Demonstrate basic metalworking techniques.
- 3. Demonstrate basic fiberglass.
- 4. SMC and plastic body filler repair.
- 5. Demonstrate proper priming procedures.
- 6. Apply shop safety practices.

# ABDR 1307 - Collision Repair Welding (WECM)

1. Set-up welding equipment and perform industry standard welds and cutting procedures.

# ABDR 1315 - Vehicle Trim and Hardware (WECM)

1. Utilize tools and procedures for servicing interior and exterior trim including glass with emphasis on shop safety practices.

#### ABDR 1419 - Basic Metal Repair (WECM)

- 1. Perform basic metal straightening procedures.
- 2. Utilize basic body shop hand tools and plastic filler application techniques.
- 3. Apply personal and environmental safety practices.

#### ABDR 1431 – Basic Refinishing (WECM)

- 1. Using industry refinishing tools.
- 2. Perform surface preparation and masking skills.
- 3. Refinish trim.
- 4. Apply personal and environmental safety procedures.

#### ABDR 1441 – Structural Analysis and Damage Repair I (WECM)

- 1. Describe the effects of collision and repair on sheet metal.
- 2. Perform roughout procedures describe major body alignment problems.
- 3. Perform adjustment methods.

# ABDR 1455 - Non-Structural Metal Repair (WECM)

- 1. Perform rough-out contours of damaged panels.
- 2. Perform metal repair procedure.
- 3. Apply personal and environmental safety practices.
- 4. Demonstrate use of hand and power tools.

#### ABDR 2388 - Internship - Autobody/Collision and Repair Technology/Technician (WECM)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

# ABDR 2389 - Internship - Autobody/Collision and Repair Technology/Technician (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Students will perform the coding and mixing of paints. (Faculty Defined)
- 4. Students will learn to operate a framing machine. (Faculty Defined)
- 5. Students will learn to operate hydraulic power tools. (Faculty Defined)
- 6. Students will perform good housekeeping practices when in the field. (Faculty Defined)

# **ACCT**

#### **ACCT 2301 – Principles of Financial Accounting (ACGM)**

- 1. Use basic accounting terminology and the assumptions, principles, and constraints of the accounting environment.
- 2. Identify the difference between accrual and cash basis accounting.
- 3. Analyze and record business events in accordance with U.S. generally accepted accounting principles (GAAP).
- 4. Prepare adjusting entries and close the general ledger.
- 5. Prepare financial statements in an appropriate U.S. GAAP format, including the following: income statement, balance sheet, statement of cash flows, and statement of shareholders' equity.
- 6. Analyze and interpret financial statements using financial analysis techniques.
- 7. Describe the conceptual differences between International Financial Reporting Standards and U.S. generally accepted accounting principles.

#### **ACCT 2302 – Principles of Managerial Accounting (ACGM)**

- 1. Identify the role and scope of financial and managerial accounting and the use of accounting information in the decision-making process of managers.
- 2. Define operational and capital budgeting, and explain its role in planning, control, and decision making.
- 3. Prepare an operating budget, identify its major components, and explain the interrelationships among its various components.

- 4. Explain methods of performance evaluation.
- 5. Use appropriate financial information to make operational decisions.
- 6. Demonstrate use of accounting data in the areas of product costing, cost behavior, cost control, and operational and capital budgeting for management decisions.

# **ACNT**

#### ACNT 1193 – Special Topics in Taxation (WECM/Faculty Defined)

- 1. Apply basic income tax knowledge.
- 2. Prepare a basic individual electronic income tax return using the appropriate IRS Form 1040, 1040A, or 1040EZ, and its related forms and schedules.
- 3. Tax returns during the VITA service.
- 4. Volunteer a minimum of 16 hours at the VITA site.

# ACNT 1240 - Accounting and Business Ethics (WECM)

- 1. Identify ethical versus unethical situations.
- 2. Analyze the ethics of an action.
- 3. Determine action in dealing with unethical situations.
- 4. Identify the impact of unethical decisions and behaviors on business.

# **ACNT 1303 – Introduction to Accounting I (WECM)**

- 1. Define accounting terminology.
- 2. Analyze and record business transactions in a manual and computerized environment.
- 3. Complete the accounting cycle.
- 4. Prepare financial statements.
- 5. Apply accounting concepts related to cash and payroll.
- 6. Prepare bank reconciliations.
- 7. Correct accounting errors.

#### ACNT 1304 – Introduction to Accounting II (WECM)

- 1. Define accounting terminology.
- 2. Analyze and record business transactions for a merchandising operation in a manual and computerized environment.
- 3. Calculate interest.
- 4. Apply valuation methods for receivables and payables.
- 5. Utilize various inventory and depreciation methods.
- 6. Identify internal control procedures for inventory, receivables, and payables.

### **ACNT 1311 – Introduction to Computerized Accounting (WECM)**

- 1. Utilize an application software to perform accounting tasks.
- 2. Maintain records.
- 3. Prepare reports.
- 4. Analyze reports for a business entity.
- 5. Complete a comprehensive project.
- 6. Explain the components of general ledger software.

#### ACNT 1329 - Payroll and Business Tax Accounting (WECM)

- 1. Calculate employee payroll and employer related taxes.
- 2. Prepare related tax forms.
- 3. Manage payroll records required to reflect current laws and regulations.

#### ACNT 1331 – Federal Income Tax: Individual (WECM)

1. Prepare federal income tax forms and related schedules for individuals.

#### ACNT 2380 - Cooperative Education - Accounting (WECM/Faculty Defined)

- Apply the theory and skills involving specialized procedures, regulations and laws. (Faculty Defined)
- 2. Demonstrate interpersonal and teamwork skills. (Faculty Defined)
- 3. Apply written and verbal communication skills. (Faculty Defined)
- 4. Demonstrate legal and ethical behavior. (Faculty Defined)

#### **AGRI**

#### AGRI 1131 – The Agricultural Industry (ACGM)

- 1. Explain the history and importance of agriculture.
- 2. Identify the various industries of agriculture.
- 3. Assess careers in agriculture and related educational requirements.
- 4. Apply verbal and written communication skills in agricultural contexts.

# AGRI 1407 Agronomy (lecture + lab) (ACGM)

#### Lecture:

- 1. Summarize the role of climate and geography in present and past crop production.
- 5. Explain the growth and development of crops.
- 6. Analyze the impact of climate on crops.
- 7. Assess the interactions of soils, water, and fertility on crop production.
- 8. Contrast methods of pest management in crop production.
- 9. Differentiate production methods based on geography and crop selection.

#### Lab:

- 1. Apply scientific reasoning to investigate questions and utilize scientific and agronomic tools to collect and analyze data and demonstrate methods.
- 2. Use critical thinking and scientific problem solving to make informed decisions.
- 3. Communicate effectively the results of scientific investigations.
- 4. Summarize the role of climate and geography in present and past crop production.
- 5. Explain the growth and development of crops.
- 6. Analyze the impact of climate on crops.
- 7. Assess the interactions of soils, water, and fertility on crop production.
- 8. Contrast methods of pest management in crop production.
- 9. Differentiate production methods based on geography and crop selection.

# AGRI 1415 - Horticulture (lecture +lab)(ACGM)

#### Lecture:

- 1. Identify the various horticultural industries and their roles in our society.
- 2. Describe the fundamentals of plant science.
- 3. Assess the interactions of soils, water, and fertility in plant science.
- 4. Contrast the methods of plant reproduction and propagation.

Revised: April 2024

- 5. Explain the impacts of production methods and technologies on plant science.
- 6. Contrast methods of pest management in plant science.
- 7. Investigate methods of environmental manipulation (e.g. greenhouse controls, frost management methods, hot caps).

#### Lab:

- 1. Apply scientific reasoning to investigate questions and utilize scientific and horticultural tools to collect and analyze data and demonstrate methods.
- 2. Use critical thinking and scientific problem solving to make informed decisions.
- 3. Communicate effectively the results of scientific investigations.
- 4. Identify the various horticultural industries and their roles in our society.
- 5. Describe the fundamentals of plant science.
- 6. Assess the interactions of soils, water, and fertility in plant science.
- 7. Contrast the methods of plant reproduction and propagation.
- 8. Explain the impacts of production methods and technologies on plant science.
- 9. Contrast methods of pest management in plant science.
- 10. Investigate methods of environmental manipulation (e.g. greenhouse controls, frost management methods, hot caps)

# AGRI 1419 – Introductory Animal Science (lecture +lab)(ACGM)

#### Lecture:

- 1. Explain the role of animal agriculture in providing benefits for humankind.
- 2. Identify common livestock breeds and classes.
- 3. Define terminology specific to animal science disciplines.
- 4. Demonstrate understanding of fundamental animal science principles including selection, reproduction, nutrition, and health.
- 5. Apply animal science principles by solving common problems.
- 6. Identify animal issues of interest to society, and related responsibilities.

#### Lab:

- 1. Apply scientific reasoning to investigate questions and utilize animal science tools to collect and analyze data and demonstrate methods.
- 2. Use critical thinking and scientific problem solving to make informed decisions.
- 3. Communicate effectively the results of scientific investigations.
- 4. Explain the role of animal agriculture in providing benefits for humankind.
- 5. Identify common livestock breeds and classes.
- 6. Define terminology specific to animal science disciplines.
- 7. Demonstrate understanding of fundamental animal science principles including selection, reproduction, nutrition, and health.
- 8. Apply animal science principles by solving common problems.
- 9. Identify animal issues of interest to society, and related responsibilities.

#### AGRI 2317 – Introduction to Agricultural Economics (AGCM)

- 1. Describe fundamental macro- and micro-economic principles.
- 2. Apply economic principles to agricultural production, marketing and consumption.
- 3. Describe the different agricultural economics fields (e.g. food industry, demand theory, supply theory, competitive environments).

# ANTH

#### ANTH 2351 - Cultural Anthropology

- 1. Describe key concepts and methods of cultural anthropology.
- 2. Explain the concept of culture, cultural diversity, and culture change.
- 3. Demonstrate how anthropological concepts apply to addressing human and global challenges.

# **ARCF**

# **ARCE 1352 - Structural Drafting**

- 1. Identify components of structural systems.
- 2. Use reference materials.
- 3. Produce drawings for concrete, wood, and steel framing systems.
- 4. Draw design details and connections for framing components.
- 5. Draw column and beam details for manufacture and assembly utilizing various fastening methods.

# **ARCH**

#### ARCH 1301 - Architectural History I (ACGM)

- 1. Identify works of architecture from the period.
- 2. Define key architectural concepts and terms from the period.
- 3. Compare and contrast parallel and divergent histories of world architecture from the period.
- 4. Critically evaluate and/or analyze works of architecture landscape and urban design from the period.
- 5. Explain the relationship between buildings and their cultural, historical, and physical contexts, which may include consideration of vernacular and regional settings appropriate to the period.
- 6. Describe the architectural technology of the period, including building materials and construction techniques.

### ARCH 1302 - Architectural History II (ACGM)

- 1. Identify works of architecture from the period.
- 2. Define key architectural concepts and terms from the period.
- 3. Compare and contrast parallel and divergent histories of world architecture from the period.
- 4. Critically evaluate and/or analyze works of architecture landscape and urban design from the period.
- 5. Explain the relationship between buildings and their cultural, historical, and physical contexts, which may include consideration of vernacular and regional settings appropriate to the period.
- 6. Describe the architectural technology of the period, including building materials and construction techniques.

# ARCH 1303 - Architectural Design I (ACGM)

- 1. Use abstract concepts and ideas in design projects.
- 2. Use two-dimensional and three-dimensional media effectively.
- 3. Employ sensitivity to the "craft" of making.
- 4. Use critical and iterative design processes.
- 5. Participate and share ideas in a common dialogue.
- 6. Apply organization skills and time management.

7. Develop cognitive strategies for analysis and implementation of design ideas.

#### ARCH 1304 - Architectural Design II (ACGM)

- 1. Demonstrate an understanding of spatial relationships.
- 2. Engage and apply a design approach across multiple scales and contexts.
- 3. Produce projects that demonstrate an awareness of the natural environment.
- 4. Recognize the use of project programs.
- 5. Recognize the use of precedents.
- 6. Explain the significance of proportion and scale in the built environment.
- 7. Select the appropriate representational media to translate programmatic issues into architectural form.
- 8. Articulate verbal and formal compositional vocabulary of basic architectural concepts.

#### ARCH 1307 – Architectural Graphics I (ACGM)

- 1. Execute the major conventions of architectural representation, such as plans, sections, elevations, and other three-dimensional drawings.
- 2. Use tools necessary to produce architectural drawings.
- 3. Use drawings to explore and diagram design concepts.
- 4. Explain/describe the history of techniques associated with representation, visualization, analysis, and presentation.
- 5. Produce well-crafted presentation materials that communicate ideas clearly.

#### ARCH 1308 - Architectural Graphics II (ACGM)

- 1. Execute the major conventions of architectural representation of pictorial drawings such as axonometric, isometric, and oblique views.
- 2. Use color effectively in design.
- 3. Use shade and shadow techniques effectively in design.
- 4. Create drawings which demonstrate an understanding of design processes.
- 5. Diagram spatial ideas and clarify design concepts.
- 6. Produce well-crafted presentation materials that communicate ideas clearly.

# **ARCH 1311 – Introduction to Architecture (ACGM)**

- 1. Describe the relationship of human behavior and the built environment.
- 2. Summarize relevant processes of architectural education and professional practice and licensure.
- 3. Develop observational skills aimed at understanding and evaluating the physical and spatial qualities in architecture.
- 4. Describe the tools and techniques associated with architectural and other architecture-related design practices.
- 5. Explain the importance of architectural traditions, concepts, theories, history, and technology.
- 6. Explain the importance and role of architecture in relation to ecological and environmental contexts.
- 7. Recognize the formal, spatial, and experiential qualities and principles of architecture.
- 8. Explain the collaborative relationship of architecture and allied professions (including but not limited to interior design, landscape architecture, construction, and fine arts).

#### ARCH 1315 – Architectural Computer Graphics (ACGM)

- 1. Execute and understand digital design software.
- 2. Produce digital drawings that clearly and accurately communicate design intentions.
- 3. Manage and reproduce digital files.
- 4. Compose and present drawings with attention to line weight, character, and accuracy.
- 5. Compare and interpret the relationship between analogue and digital techniques in the design process.
- 6. Produce quality images and publications suitable for portfolios.
- 7. Recognize various digital media used to create presentations for target audiences within the profession and the general public.

# **ARCH 2301 – Architectural Freehand Drawing I (ACGM)**

- 1. Use a range of freehand drawing media and skills related to visual communication.
- 2. Use drawing as the means of architectural problem solving.
- 3. Use graphic tools to record visual observations.
- 4. Recognize the importance of line weight to the perception of drawings.
- 5. Draw freehand lines of various forms, shapes, textures, and qualities.

# ARCH 2302 – Architectural Freehand Drawing II (ACGM)

- 1. Use freehand drawing skills as a design tool.
- 2. Communicate visually through freehand drawings to explore ideas in site plans, elevations, sections, perspective views, and other architectural graphic conventions.
- 3. Apply key strengths of freehand media and skills in design thinking.
- 4. Use a range of drawing techniques best suited to architectural practice, both as exploratory design tools and for presentations.

#### ARCH 2312 – Architectural Technology I (ACGM)

- 1. Identify fundamental elements and key components of structural systems.
- 2. Identify different construction types for buildings.
- 3. Describe the properties and uses of building envelope systems and assemblies.
- 4. Recognize the different properties of major construction materials.
- 5. Describe the relationship between material properties and building form.
- 6. Recognize the sustainability and environmental impact of building material use and building performance.

# ARCH 2603 Architectural Design III (ACGM)

- 1. Demonstrate an understanding of the basic concepts and principles of architectural programming and its role in architectural design.
- 2. Identify, document, and use site specific characteristics and contextual information to develop design proposals.
- 3. Recognize and comprehend the disparate needs of clients, users, and other members of the community.
- 4. Graphically communicate design ideas at various stages during the design process.
- 5. Integrate environmental and architectural principles.
- 6. Initiate and sustain a schematic design process.

#### ARCH 2604 Architectural Design IV (ACGM)

1. Articulate and express concretely the specific principles of architecture.

- 2. Exercise an expanded architectural vocabulary.
- 3. Demonstrate technical knowledge necessary to address the varied criteria of architectural design.
- 4. Investigate function, the use of space, order, structure, and design methodologies effectively.
- 5. Communicate ideas with graphic methods as required in the practice of architecture.

# **ARTS**

#### ARTS 1301 - Art Appreciation (ACGM)

- 1. Apply art terminology as it specifically relates to works of art.
- 2. Demonstrate knowledge of art elements and principles of design.
- 3. Differentiate between the processes and materials used in the production of various works of art.
- 4. Critically interpret and evaluate works of art.
- 5. Demonstrate an understanding of the impact of arts on culture.

#### ARTS 1303 - Art History I (ACGM)

- 1. Identify and describe works of art based on their chronology and style, using standard categories and terminology.
- 2. Investigate major artistic developments and significant works of art from prehistoric times to the 14th century.
- 3. Analyze the relationship of art to history by placing works of art within cultural, historical, and chronological contexts.
- 4. Critically interpret and evaluate works of art.

#### ARTS 1304 - Art History II (ACGM)

- 1. Identify and describe works of art based on their chronology and style, using standard categories and terminology.
- 2. Investigate major artistic developments and significant works of art from the 14th century to the present day.
- 3. Analyze the relationship of art to history by placing works of art within cultural, historical, and chronological contexts.
- 4. Critically interpret and evaluate works of art.

#### ARTS 1311 - Design I (ACGM)

- 1. Identify and apply the elements of art and principles of two-dimensional design.
- 2. Employ discipline specific vocabulary in the evaluation of two-dimensional design problems.
- 3. Demonstrate creative skill in aesthetic problem solving within assigned parameters.
- 4. Demonstrate an appropriate level of professional practice, including safety, craft and presentation.

#### ARTS 1312 - Design II (ACGM)

- 1. Identify and apply the elements of art and principles of three-dimensional design.
- 2. Employ discipline specific vocabulary in the evaluation of three-dimensional design problems.
- 3. Demonstrate creative skill in aesthetic problem solving within assigned parameters.
- 4. Demonstrate an appropriate level of professional practice, including safety, craft and presentation.

# ARTS 1316 – Drawing I (ACGM)

- 1. Describe visual subjects through the use of accurate and sensitive observation.
- 2. Generate drawings which demonstrate descriptive, expressive, and conceptual approaches.
- 3. Utilize varied materials and techniques with informed aesthetic and conceptual strategies.

- 4. Demonstrate an appropriate level of professional practice, including safety, craft and presentation.
- 5. Analyze and critique drawings verbally and/or in writing.
- 6. Relate drawing to design, art history and contemporary artistic production.

# ARTS 1317 - Drawing II (ACGM)

- 1. Describe visual subjects through the use of accurate and sensitive observation.
- 2. Generate drawings which demonstrate descriptive, expressive, and conceptual approaches with an increased focus on individual expression.
- 3. Utilize varied materials and techniques, including color media, with informed aesthetic and conceptual strategies.
- 4. Demonstrate an appropriate level of professional practice, including safety, craft and presentation.
- 5. Analyze and critique drawings verbally and/or in writing.
- 6. Relate their drawings to historical and contemporary developments in the field.

# ARTS 2313 - Graphic Design (ACGM)

- 1. Apply tools and technologies used in graphic design.
- 2. Apply the elements of art and principles of graphic design.
- 3. Illustrate problem-solving techniques for successful communication of concepts within assigned parameters.
- 4. Employ discipline-specific vocabulary in the evaluation of traditional and contemporary graphic design.
- 5. Demonstrate an appropriate level of professional practice.

# ARTS 2316 - Painting I (ACGM)

- 1. Generate works that demonstrate descriptive, expressive, and conceptual approaches.
- 2. Apply the elements of art and principles of design.
- 3. Use varied materials and techniques with informed aesthetic strategies.
- 4. Analyze and critique works verbally and/or in writing.
- 5. Relate painting to art history and contemporary artistic production.
- 6. Demonstrate an appropriate level of professional practice, including safety, craft, and presentation.

# ARTS 2317 - Painting II (ACGM)

- 1. Generate works that demonstrate descriptive, expressive, and conceptual approaches at an increased level of competency.
- 2. Apply the elements of art and principles of design.
- 3. Use varied materials and techniques with informed aesthetic strategies.
- 4. Analyze and critique works verbally and/or in writing.
- 5. Relate painting to art history and contemporary artistic production.
- 6. Demonstrate an appropriate level of professional practice, including safety, craft, and presentation.

#### ARTS 2326 – Sculpture (ACGM)

- 1. Generate works that demonstrate descriptive, expressive, and conceptual approaches.
- 2. Apply the elements of art and principles of design.
- 3. Use varied materials, including, but not limited to, clay, metal, plaster, wood, and found objects
- 4. Demonstrate additive and subtractive processes.
- 5. Analyze and critique works verbally and/or in writing.

- 6. Relate sculpture to art history and contemporary artistic production.
- 7. Demonstrate an appropriate level of professional practice, including safety, craft, and presentation.

#### ARTS 2333 - Printmaking (ACGM)

- 1. Apply the basic elements and principles of visual art as they relate to the discipline of printmaking.
- 2. Differentiate traditional print mediums of intaglio, relief, lithography, and serigraphy.
- 3. Analyze and critique printed works verbally and/or in writing.
- 4. Employ discipline-specific vocabulary in the evaluation of traditional and contemporary printmaking.
- 5. Relate printed works to historical and contemporary developments in the field.
- 6. Demonstrate an appropriate level of professional practice, including safety, craft, and presentation.

### ARTS 2346 - Ceramics I (ACGM)

- 1. Generate works that demonstrate descriptive, expressive, and conceptual approaches.
- 2. Apply the elements of art and principles of design.
- 3. Use varied processes including, but not limited to, hand building, throwing, glazing, and firing.
- 4. Demonstrate additive and subtractive processes.
- 5. Analyze and critique works verbally and/or in writing.
- 6. Relate ceramics to art history and contemporary artistic production.
- 7. Demonstrate an appropriate level of professional practice, including safety, craft, and presentation.

#### ARTS 2347 - Ceramics II (ACGM)

- 1. Generate works that demonstrate descriptive, expressive, and conceptual approaches at an increased level of competency.
- 2. Apply the elements of art and principles of design.
- 3. Use varied processes including, but not limited to, hand building, throwing, glazing, and firing.
- 4. Demonstrate additive and subtractive processes.
- 5. Analyze and critique works verbally and/or in writing.
- 6. Relate ceramics to art history and contemporary artistic production.
- 7. Demonstrate an appropriate level of professional practice, including safety, craft, and presentation.

# ARTS 2348 - Digital Media (ACGM)

- 1. Apply tools and technologies used in digital media.
- 2. Apply the elements of art and principles of design within the realm of digital media.
- 3. Demonstrate creative skill in aesthetic problem solving within assigned parameters.
- 4. Employ discipline-specific vocabulary in the evaluation of still and time-based design problems.
- 5. Demonstrate an appropriate level of professional practice

#### ARTS 2356 – Photography I (ACGM)

- 1. Demonstrate knowledge of manual camera operation, including shutter speed, aperture, and ISO.
- 2. Demonstrate the techniques of wet and/or dry photographic processes.
- 3. Apply the elements of art and principles of design to photographic works.
- 4. Analyze and critique printed photographic works verbally and/or in writing.
- 5. Employ discipline-specific vocabulary in the evaluation of traditional and contemporary photography.

- 6. Relate photographs to historical and contemporary developments in the field.
- 7. Demonstrate an appropriate level of professional practice, including safety, craft, and presentation.

# ARTS 2357 – Photography II (ACGM)

- 1. Demonstrate the techniques of wet and/or dry photographic processes.
- 2. Apply the elements of art and principles of design to photographic works.
- 3. Analyze and critique printed photographic works verbally and/or in writing.
- 4. Employ discipline-specific vocabulary in the evaluation of traditional and contemporary photography.
- 5. Relate photographs to historical and contemporary developments in the field.
- 6. Demonstrate an appropriate level of professional practice, including safety, craft, and presentation.

# **ARTV**

# ARTV 1451 - Digital Video (WECM/Faculty Defined)

- 1. Use digital video capture and output methods.
- 2. Apply appropriate compression schemes for various output.
- 3. Integrate still graphics and animation into a production.
- 4. Apply principles of video production.
- 5. Identify the components of a digital video system.
- 6. Students will prepare a digital image for use in a digital video file. (Faculty Defined)
- 7. Students will capture video from a video camera according to project specs. (Faculty Defined)
- 8. Students will create a digital video file importing video and sound, then export it with the proper compression according to project specifications. (Faculty Defined)
- 9. Students will prepare a video to be used as an interactive multimedia file. (Faculty Defined)
- 10. Students will manipulate a digital video file in using filters, motion, superimpositions and transparencies. (Faculty Defined)
- 11. Students will prepare a storyboard and flowchart for a video project. (Faculty Defined)
- 12. Students will apply the camcorder settings using aperture, sound inputs, frame rate, white balance and audio settings to achieve correct look and feel to the prepared composition. (Faculty Defined)
- 13. Students will shoot video using various compositional styles, frame rates, chroma backgrounds and aspect ratios. (Faculty Defined)
- 14. Students will create an interactive, multi-region DVD with menus according to project specs. (Faculty Defined)
- 15. Students will assess the video project and create an initial budget to determine what equipment is needed. (Faculty Defined)
- 16. Students will export a video for internet streaming. (Faculty Defined)

# **AUMT**

# AUMT 1213 – Automotive Suspension and Steering Systems Theory (WECM)

- 1. Explain function and diagnostic procedures of suspension system components.
- 2. Explain tire and wheel construction.
- 3. Identify reasons for tire wear and alignment angles.

#### **AUMT 1249 – Automotive Electronics Theory (WECM)**

- 1. Explain basic electrical and electronic principles.
- 2. Describe semiconductor theory.
- 3. Explain basic circuit laws.
- 4. Describe proper use of electrical test equipment.

# AUMT 1257 - Automotive Brake Systems Theory (WECM)

- 1. Explain the operation of disc and drum-type brakes.
- 2. Explain hydraulic system physical principles.
- 3. Describe the operation of power assist components.
- 4. Explain the operation and theory of anti-lock brake systems.

#### **AUMT 1305 – Introduction to Automotive Technology (WECM)**

- 1. Utilize appropriate safety procedures.
- 2. Describe historical development and career information of the automotive industry.
- 3. Demonstrate safe, professional, and responsible work practices.
- 4. Demonstrate the proper use of shop equipment and tools.
- 5. Describe the eight Automotive Service Excellence (ASE) vehicle subsystems.
- 6. Use service information.
- 7. Perform basic automotive maintenance.

### **AUMT 1310 – Automotive Brake Systems (WECM)**

- 1. Utilize safety procedures.
- 2. Explain operation of modern brake systems, diagnose and repair hydraulic systems, drum/disc brake systems, parking brakes, and anti-lock brake systems.
- 3. Machine drums and rotors with current industry standard equipment.

# AUMT 1316 - Automotive Suspension and Steering Systems (WECM)

- 1. Utilize safety procedures.
- 2. Explain operations of suspension and steering systems.
- 3. Diagnose and repair system components, including electronically controlled systems.
- 4. Perform 4-wheel alignment procedures.
- 5. Perform tire service and repair.

#### **AUMT 1319 – Automotive Engine Repair (WECM)**

- 1. Utilize safety procedures.
- 2. Explain engine operating principles.
- 3. Demonstrate engine diagnostic procedures.
- 4. Repair cylinder head, valve train, block assembly, lubrication, and cooling systems.

#### **AUMT 1341 – Automotive Climate Control Systems Theory (WECM)**

- 1. Explain the refrigeration cycle.
- 2. Describe the air distribution system.
- 3. Define the proper procedure for handling refrigerant.
- 4. Explain the operation of climate controls.

#### **AUMT 1345 – Automotive Climate Control Systems (WECM)**

- 1. Use safety procedures including proper refrigerant handling.
- 2. Explain the refrigeration cycle.
- 3. Diagnose and repair systems including automatic temperature control.

# **AUMT 1407 – Automotive Electrical Systems (WECM)**

- 1. Utilize safety procedures.
- 2. Define basic electrical principles.
- 3. Interpret wiring schematics and symbols.
- 4. Explain operation of batteries, starting/charging systems, and automotive circuits.
- 5. Use test equipment.
- 6. Perform basic electrical repairs.

# **AUMT 1419 – Automotive Engine Repair (WECM)**

- 1. Utilize safety procedures.
- 2. Explain engine operating principles.
- 3. Demonstrate engine diagnostic procedures.
- 4. Repair cylinder head, valve train, block assembly, lubrication, and cooling systems.

# **AUMT 2205 – Automotive Engine Theory (WECM)**

- 1. Explain engine diagnostic techniques.
- 2. Identify engine components.
- 3. Explain engine operation.
- 4. Identify signs of engine component failure.

# AUMT 2215 – Automotive Engine Performance Analysis Theory I (WECM)

- 1. Explain engine dynamics, principles of ignition and fuel delivery systems.
- 2. Explain the proper use and care of basic engine performance diagnostic equipment.

#### **AUMT 2301 - Automotive Management**

- 1. Explain current management practices.
- 2. Describe customer relation techniques.
- 3. Explain the importance of customer satisfaction in the automotive industry.

# AUMT 2313 – Automotive Drive Train and Axles (WECM)

- Utilize appropriate safety procedures.
- 2. Diagnose and repair drive train components, clutches, manual transmissions/transaxles, and differentials; and service constant velocity joints and universal joints.

# **AUMT 2317 – Automotive Engine Performance Analysis I**

- Utilize safety procedures.
- 2. Explain engine dynamics.
- 3. Diagnose and repair ignition and fuel delivery systems.
- 4. Use current engine performance diagnostic equipment.

# AUMT 2323 – Automotive Automatic Transmission and Transaxle Theory (WECM)

- 1. Explain hydraulic principles of the automatic transmission.
- 2. Identify components of the automatic transmission.
- 3. Explain procedures for diagnosing and repairing automatic transmissions.

#### **AUMT 2325 – Automatic Transmission and Transaxle (WECM)**

1. Diagnose, service, adjust, and repair automatic transmissions/transaxles.

#### **AUMT 2328 – Automotive Service (WECM)**

- 1. Service, diagnose, and repair vehicle systems.
- 2. Maintain shop facilities and equipment.

#### **AUMT 2334 – Automotive Engine Performance Analysis II**

- 1. Diagnose and repair emission control systems, computerized engine performance systems, and advanced ignition and fuel systems.
- 2. Use advanced engine performance diagnostic equipment.

#### **AUMT 2337 – Automotive Electronics**

- 1. Employ proper safety procedures.
- 2. Use scan tools, digital storage oscilloscopes, and other electronic test equipment.
- 3. Apply electronic principles to the diagnosis of microcomputers, analysis of communication circuits, and interpretation of sensor data.

# AUMT 2388 – Internship – Automobile/Automotive Mechanics Technology/Technician (WECM/Faculty Define)

- 1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry
- 2. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Students must diagnose a misfire problem on two different vehicles. (Faculty Define)
- 4. Students must perform the retrieval of DTC's with the use of a scanner on three different vehicles. (Faculty Define)
- 5. Students must perform two wheel alignments. (Faculty Define)
- 6. Students must diagnose two no start conditions. (Faculty Define)

#### AUMT 2425 – Automotive Automatic Transmission and Transaxle (WECM)

1. Diagnose, service, adjust, and repair automatic transmissions/transaxles.

# **BCIS**

#### **BCIS 1305 – Business Computer Applications (ACGM)**

- 1. Describe the fundamentals of information technology concepts hardware, software, security, and privacy.
- 2. Demonstrate proper file management techniques to manipulate electronic files and folders in local, network, and online environments.
- 3. Create business documents with word processing software using spelling and grammar check, format and layout, tables, citations, graphics, and mail merge.

- 4. Create business documents and analyze data with spreadsheet software using (1) tables, sorting, filtering, charts and graphics, pivot tables, macros; (2) statistical, financial, logical and look-up functions and formulas, and (3) add-ins.
- 5. Create business multimedia presentations with presentation software using templates, lists, groups, themes, colors, clip art, pictures, tables, transitions, animation, video, charts, and views.
- 6. Create databases and manage data with database software using tables, fields, relationships, indexes, keys, views, queries, forms, reports, and import/export functions.
- 7. Integrate business software applications.
- 8. Use web-based technologies to conduct ethical business research.
- 9. Use "goal seeking" and "what-if analysis" to solve problems and make adjustments/recommendations in a business environment.

#### BIOL

# **BIOL 1106 – Biology for Science Majors I-Lab (ACGM)**

- 1. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
- 2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
- 3. Communicate effectively the results of scientific investigations.
- 4. Describe the characteristics of life.
- 5. Explain the methods of inquiry used by scientist.
- 6. Identify the basic properties of substances needed for life.
- 7. Compare and contrast the structures, reproduction, and characteristics of viruses, prokaryotic cells, and eukaryotic cells.
- 8. Describe the structure of cell membranes and the movement of molecules across a membrane.
- 9. Identify the substrates, products, and important chemical pathways in metabolism.
- 10. Identify the principles of inheritance and solve classical genetic problems.
- 11. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
- 12. Describe the unity and diversity of life and the evidence for evolution through natural selection.

# **BIOL 1107 – Biology for Science Majors II-Lab (ACGM)**

- 1. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
- 2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
- 3. Communicate effectively the results of scientific investigations.
- 4. Demonstrate knowledge of modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
- 5. Distinguish between phylogenetic relationships and classification schemes.
- 6. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
- 7. Describe basic animal physiology and homeostasis as maintained by organ systems.
- 8. Compare different sexual and asexual life cycles noting their adaptive advantages.
- 9. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

#### BIOL 1108 - Biology for Non-Science Majors I Lab (ACGM)

- 1. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
- 2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
- 3. Communicate effectively the results of scientific investigations.
- 4. Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.
- 5. Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.
- 6. Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.
- 7. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
- 8. Identify the importance of karyotypes, pedigrees, and biotechnology.
- 9. Identify parts of a DNA molecule, and describe replication, transcription, and translation.
- 10. Analyze evidence for evolution and natural selection.

# BIOL 1109 - Biology for Non-Science Majors II -Lab (ACGM)

- 1. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
- 2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
- 3. Communicate effectively the results of scientific investigations.
- 4. Define modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
- 5. Describe phylogenetic relationships and classification schemes.
- 6. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
- 7. Describe basic animal physiology and homeostasis as maintained by organ systems.
- 8. Compare different sexual and asexual life cycles noting their adaptive advantages.
- 9. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

#### **BIOL 1306 – Biology for Science Majors I (ACGM)**

- 1. Describe the characteristics of life.
- 2. Explain the methods of inquiry used by scientists.
- 3. Identify the basic requirements of life and the properties of the major molecules needed for life.
- 4. Compare and contrast the structures, reproduction, and characteristics of viruses, prokaryotic cells, and eukaryotic cells.
- 5. Describe the structure of cell membranes and the movement of molecules across a membrane.
- 6. Identify the substrates, products, and important chemical pathways in metabolism.
- 7. Identify the principles of inheritance and solve classical genetic problems.
- 8. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
- 9. Describe the unity and diversity of life and the evidence for evolution through natural selection.

#### **BIOL 1307 – Biology for Science Majors II (ACGM)**

- 1. Describe modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
- 2. Describe phylogenetic relationships and classification schemes.
- 3. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
- 4. Describe basic animal physiology and homeostasis as maintained by organ systems.
- 5. Compare different sexual and asexual life cycles noting their adaptive advantages.
- 6. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

# BIOL 1308 - Biology for Non-Science Majors I (ACGM)

- 1. Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.
- 2. Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.
- 3. Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.
- 4. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
- 5. Describe karyotyping, pedigrees, and biotechnology and provide an example of the uses of each.
- 6. Identify parts of a DNA molecule, and describe replication, transcription, and translation.
- 7. Analyze evidence for evolution and natural selection.

#### BIOL 1309 - Biology for Non-Science Majors II (ACGM)

- 1. Describe modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
- 2. Describe phylogenetic relationships and classification schemes.
- 3. Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
- 4. Describe basic animal physiology and homeostasis as maintained by organ systems.
- 5. Compare different sexual and asexual life cycles noting their adaptive advantages.
- 6. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

#### **BIOL 1322 – Nutrition & Diet Therapy I (ACGM)**

- 1. Apply nutritional knowledge to analyze personal dietary intakes, to plan nutritious meals using nationally established criteria to meet recommended goals, and to evaluate food labels and the validity of nutritional claims.
- 2. Trace the pathways and processes that occur in the body to handle nutrients and alcohol through consumption, digestion, absorption, transport, metabolism, storage and waste excretion.
- 3. Discuss functions, sources, deficiencies, and toxicities of macro- and micronutrients, including carbohydrates, lipids, proteins, water, vitamins, and minerals.
- 4. Apply the concept of energy balance and its influences at the physical, emotional, societal, and cellular level to evaluate advantages and disadvantages of various methods used to correct energy imbalances.

- 5. Utilize concepts of aerobic and anaerobic energy systems, and knowledge about macronutrients, vitamins, minerals, ergogenics, and supplements and relate them to fitness and health.
- 6. Describe health and disease issues related to nutrition throughout the life cycle, including food safety, corrective dietary modifications, and the influence of specific nutrients on diseases.

#### BIOL 1406 – Biology for Science Majors I (lecture + lab) (ACGM)

#### (Lecture):

- 1. Describe the characteristics of life.
- 2. Explain the methods of inquiry used by scientists.
- 3. Identify the basic requirements of life and the properties of the major molecules needed for life.
- 4. Compare and contrast the structures, reproduction, and characteristics of viruses, prokaryotic cells, and eukaryotic cells.
- 5. Describe the structure of cell membranes and the movement of molecules across a membrane.
- 6. Identify the substrates, products, and important chemical pathways in metabolism.
- 7. Identify the principles of inheritance and solve classical genetic problems.
- 8. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
- 9. Describe the unity and diversity of life and the evidence for evolution through natural selection.

#### (Lab):

- 10. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
- 11. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
- 12. Communicate effectively the results of scientific investigations.
- 13. Explain the methods of inquiry used by scientist.
- 14. Identify the basic properties of substances needed for life.
- 15. Compare and contrast the structures, reproduction, and characteristics of viruses, prokaryotic cells, and eukaryotic cells.
- 16. Describe the structure of cell membranes and the movement of molecules across a membrane.
- 17. Identify the substrates, products, and important chemical pathways in metabolism.
- 18. Identify the principles of inheritance and solve classical genetic problems.
- 19. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
- 20. Describe the unity and diversity of life and the evidence for evolution through natural selection.

#### BIOL 1414 – Introduction to Biotechnology I (ACGM/Faculty Define)

- 1. Demonstrate, both verbally and in writing, knowledge of the field of biotechnology and applications of genomics, including historical development of the field.
- 2. Demonstrate, both verbally and in writing, knowledge of scientific theory related to biotechnology techniques.
- 3. Utilizing the S.I. system of units, properly and safely operate a variety of laboratory tools and equipment to learn about and develop basic lab skills such as pipetting, preparing solutions, and weighing, and measuring.
- 4. Demonstrate, both verbally and in writing, knowledge of DNA, RNA, and protein structures, including their connection to classical genetics and the flow of genetic information.
- 5. Demonstrate understanding of and ability to utilize proper laboratory procedures within a

- regulated environment, including maintaining an accurate, up-to-date, and complete notebook record of all research activities.
- 6. Consider, discuss and debate current ethical and legal issues in biotechnology.

#### BIOL 1415 – Introduction to Biotechnology II (ACGM/Faculty Define)

- 1. Demonstrate appropriate laboratory calculations and ability to solve problems involving conversions between unit expressions and the preparation of various solutions, including buffers, to make dilutions and to accurately measure and transfer solutions volumetrically.
- 2. Explain and demonstrate isolation procedures for DNA and proteins by exploiting the various molecular characteristics of these molecules such as size, charge, isoelectric point and hydrophobicity, and demonstrate a basic understanding of bioinformatics by interpreting results.
- 3. Explain and demonstrate a mastery of the fundamentals of column chromatography, including ion exchange and gel filtration, by performing separations of mixtures utilizing low pressure column chromatography.
- 4. Explain and demonstrate a mastery of spectrochemistry, pH meters, and other laboratory equipment used to isolate, purify, and quantitate biomolecules.
- 5. Demonstrate understanding of and ability to carry out proper laboratory procedures within a regulated environment, including maintaining an accurate, up-to-date, and complete notebook record of all research activities.

# BIOL 2101 – Anatomy and Physiology Laboratory I (ACGM)

- 1. Apply appropriate safety and ethical standards.
- 2. Locate and identify anatomical structures.
- 3. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
- 4. Work collaboratively to perform experiments.
- 5. Demonstrate the steps involved in the scientific method.
- 6. Communicate results of scientific investigations, analyze data and formulate conclusions.
- 7. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations, and predictions.

# BIOL 2102 – Anatomy and Physiology Laboratory II (ACGM)

- 1. Apply appropriate safety and ethical standards.
- 2. Locate and identify anatomical structures.
- 3. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
- 4. Work collaboratively to perform experiments.
- 5. Demonstrate the steps involved in the scientific method.
- 6. Communicate results of scientific investigations, analyze data and formulate conclusions.
- 7. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations, and predictions.

#### BIOL 2120 – Microbiology for Non-Science Majors- Laboratory (ACGM)

1. Use and comply with laboratory safety rules, procedures, and universal precautions.

- 2. Demonstrate proficient use of a compound light microscope.
- 3. Describe and prepare widely used stains and wet mounts, and discuss their significance in identification of microorganisms.
- 4. Perform basic microbiology procedures using aseptic techniques for transfer, isolation and observation of commonly encountered, clinically significant bacteria.
- 5. Use different types of bacterial culture media to grow, isolate, and identify microorganisms.
- 6. Perform basic bacterial identification procedures using biochemical tests.
- 7. Estimate the number of microorganisms in a sample using methods such as direct counts, viable plate counts, or spectrophotometric measurements.
- 8. Demonstrate basic identification protocols based on microscopic morphology of some common fungi and parasites.

# BIOL 2121 – Microbiology for Science Majors-Laboratory (ACGM)

- 1. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
- 2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
- 3. Communicate effectively the results of scientific investigations.
- 4. Provide examples of the impact of microorganisms on agriculture, environment, ecosystem, energy, and human health, including biofilms.
- 5. Identify unique structures, capabilities, and genetic information flow of microorganisms.
- 6. Compare the life cycles and structures of different types of viruses.
- 7. Discuss how microscopy has revealed the structure and function of microorganisms.
- 8. Give examples of the range of metabolic diversity exhibited by microorganisms, impact of metabolic characteristics on growth, and control of growth.
- 9. Describe evidence for the evolution of cells, organelles, and major metabolic pathways from early prokaryotes and how phylogenetic trees reflect evolutionary relationships.
- 10. Describe the causes and consequences of mutations on microbial evolution and the generation of diversity as well as human impacts on adaptation.
- 11. Classify interactions of microorganisms on human and non-human hosts as neutral, detrimental, or beneficial.

#### BIOL 2289 – Academic Cooperative- Research and Design (ACGM/Faculty Define)

- 1. Design and execute independent research using appropriate methodologies. (Faculty Defined)
- 2. Communicate results in a scientific manner. (Faculty Defined)

# BIOL 2301 – Anatomy and Physiology I (ACGM)

- 1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
- 2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
- 3. Describe the interdependency and interactions of the systems.
- 4. Explain contributions of organs and systems to the maintenance of homeostasis.
- 5. Identify causes and effects of homeostatic imbalances.
- 6. Describe modern technology and tools used to study anatomy and physiology.

# BIOL 2302 - Anatomy and Physiology II (ACGM)

- 1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
- 2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
- 3. Describe the interdependency and interactions of the systems.
- 4. Explain contributions of organs and systems to the maintenance of homeostasis.
- 5. Identify causes and effects of homeostatic imbalances.
- 6. Describe modern technology and tools used to study anatomy and physiology.

#### BIOL 2320 – Microbiology for Non-Science Majors (ACGM)

- 1. Describe distinctive characteristics and diverse growth requirements of prokaryotic organisms compared to eukaryotic organisms.
- 2. Provide examples of the impact of microorganisms on agriculture, environment, ecosystem, energy, and human health, including biofilms.
- 3. Distinguish between mechanisms of physical and chemical agents to control microbial populations.
- 4. Explain the unique characteristics of bacterial metabolism and bacterial genetics.
- 5. Describe evidence for the evolution of cells, organelles, and major metabolic pathways from early prokaryotes and how phylogenetic trees reflect evolutionary relationships.
- 6. Compare characteristics and replication of acellular infectious agents (viruses and prions) with characteristics and reproduction of cellular infectious agents (prokaryotes and eukaryotes).
- 7. Describe functions of host defenses and the immune system in combating infectious diseases and explain how immunizations protect against specific diseases.
- 8. Explain transmission and virulence mechanisms of cellular and acellular infectious agents.

# BIOL 2321 - Microbiology for Science Majors (ACGM)

- 1. Provide examples of the impact of microorganisms on agriculture, environment, ecosystem, energy, and human health, including biofilms.
- 2. Identify unique structures, capabilities, and genetic information flow of microorganisms.
- 3. Compare the life cycles and structures of different types of viruses.
- 4. Discuss how microscopy has revealed the structure and function of microorganisms.
- 5. Give examples of the range of metabolic diversity exhibited by microorganisms, impact of metabolic characteristics on growth, and control of growth.
- 6. Describe evidence for the evolution of cells, organelles, and major metabolic pathways from early prokaryotes and how phylogenetic trees reflect evolutionary relationships.
- 7. Describe the causes and consequences of mutations on microbial evolution and the generation of diversity as well as human impacts on adaptation.
- 8. Classify interactions of microorganisms on human and non-human hosts as neutral, detrimental, or beneficial.

#### **BMGT**

# BMGT 1301 - Supervision (WECM)

- 1. Explain the role, characteristics, and skills of a supervisor.
- 2. Identify the principles of management at the supervisory level.
- 3. Explain the human relations skills necessary for supervision.

- 4. Explain motivational techniques.
- 5. Cite examples of how motivational techniques can be used by a supervisor in a working environment.

# **BMGT 1325 – Office Management (WECM)**

- 1. Identify skills and competencies of an office manager.
- 2. Describe different forms of organizations.
- 3. Develop processes for office operations.

# BMGT 1341 - Business Ethics (WECM)

- 1. Define business ethics.
- 2. Identify the consequences of unethical business practices.
- 3. Describe reasoning for analyzing ethical dilemmas.
- 4. Describe different ethical views.
- 5. Explain how business, government, and society function interactively.
- 6. Explain corporate social responsibility.

# **BUSI**

# **BUSI 1301 – Business Principles (ACGM)**

- 1. Identify major business functions of accounting, finance, information systems, management, and marketing.
- 2. Describe the relationships of social responsibility, ethics, and law in business.
- 3. Explain forms of ownership, including their advantages and disadvantages.
- 4. Identify and explain the domestic and international considerations for today's business environment: social, economic, legal, ethical, technological, competitive, and international.
- 5. Identify and explain the role and effect of government on business.
- 6. Describe the importance and effects of ethical practices in business and be able to analyze business situations to identify ethical dilemmas and ethical lapses.
- 7. Describe basic financial statements and show how they reflect the activity and financial condition of a business.
- 8. Explain the banking and financial systems, including the securities markets, business financing, and basic concepts of accounting.
- 9. Explain integrity, ethics, and social responsibility as they relate to leadership and management.
- 10. Explain the nature and functions of management.
- 11. Identify strengths, weaknesses, opportunities, and threats of information technology for businesses.

#### **BUSI 1307 – Personal Finance (ACGM/Faculty Define)**

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

#### **BUSI 2301 – Business Law (ACGM)**

- 1. Describe the origins and structure of the U.S. legal system.
- 2. Describe the relationship of ethics and law in business.
- 3. Define relevant legal terms in business.
- 4. Explain basic principles of law that apply to business and business transactions.
- 5. Describe business law in the global context.
- 6. Describe current law, rules, and regulations related to settling business disputes.

# BUSI 2304 – Business Report Writing & Correspondence (ACGM/Faculty Defined)

- 1. Apply correct grammar and punctuation in writing complete sentences.
- 2. Write business letters using different approaches to meet the audience.

# **CDEC**

# CDEC 1200 – Laboratory Experience: Child Growth and Development (WECM)

- 1. Document children's growth and development utilizing various observation techniques.
- 2. Engage children in developmentally appropriate experiences.

# **CDEC 1313 Curriculum Resources for Early Childhood Programs (WECM)**

- 1. Define developmentally appropriate practices.
- 2. Describe the process of child-centered curriculum development.
- 3. Develop guidelines for creating learning environments.
- 4. Describe teacher roles in early childhood classrooms.
- 5. Prepare a developmentally appropriate schedule including routines and transitions.
- 6. Select, plan, implement, and evaluate developmentally appropriate learning experiences for children.

#### CDEC 1318 – Wellness of the Young Child (WECM)

- 1. Identify principles of nutrition, health, and safety.
- 2. Conduct a nutritional, health, and safety assessment.
- 3. Examine regulatory requirements for nutrition, health, and safety.

#### CDEC 1319 - Child Guidance (WECM)

- 1. Describe theories related to child guidance.
- 2. Explain how guidance promotes autonomy, self-discipline, and pro-social skills.
- 3. Identify familial and cultural influences on child guidance.
- 4. Apply guidance techniques.

# CDEC 1321 – The Infant and Toddler (WECM)

- 1. Summarize prenatal development and the birth process.
- 2. Discuss theories of development as they apply to infants and toddlers.
- 3. Outline growth and development of children from birth to age 3.

- 4. Analyze components of teacher/child interactions and positive guidance techniques.
- 5. Design learning environments.
- 6. Select materials and activities for infants and toddlers.

# CDEC 1354 - Child Growth and Development (WECM)

- 1. Summarize principles of growth and development and developmental stages in various domains.
- 2. Discuss theories of development, the impact of developmental processes on early childhood practices and types and techniques of observation.
- 3. Explain the importance of play.
- 4. Demonstrate skills in practical application of developmental principles and theories, observation techniques and recognition of growth and developmental patterns.

# CDEC 1356 – Emergent Literacy for Early Childhood (WECM)

- 1. Define literacy and emergent literacy.
- 2. Analyze theories of language development.
- 3. Describe the teacher's role in promoting emergent literacy.
- 4. Create literacy environments and experiences for children.

# CDEC 1359 – Children with Special Needs (WECM)

- Summarize causes, incidences and characteristics of exceptionalities related to the domains of development.
- 2. Discuss current terminology and practices for intervention strategies.
- 3. Identify appropriate community resources and referrals for individual children and families.
- 4. Identify legislation and legal mandates and their impact on practices and environments.
- 5. Explain the role of advocacy for children with special needs and their families.
- 6. Identify materials and resources, including current technology, to support learning in all domains for each and every child.

# CDEC 2307 - Math and Science for Early Childhood (WECM)

- 1. Align the sequence of cognitive development to the acquisition of math and science concepts.
- 2. Explain the scientific process and its application to early care and education environments.
- 3. Develop strategies which promote critical thinking and problem-solving skills in children.
- 4. Plan discovery experiences using observation and assessment.
- 5. Evaluate developmentally appropriate materials, equipment, and environments to support the attainment of math and science concepts and skills.

#### CDEC 2315 – Diverse Cultural/Multilingual Education (WECM)

- 1. Compare models of multicultural/multilingual education.
- 2. Identify personal and institutional bias.
- 3. Plan and evaluate multicultural environments and activities.

# CDEC 2326 – Administration of Programs for Children I (WECM)

- 1. Develop an initial operational plan.
- 2. Identify the functions of an administrator.
- 3. Evaluate an early care and education program.

#### CDEC 2328 – Administration of Programs for Children II (WECM)

- 1. Discuss codes of ethical conduct.
- 2. Explain the administrator's role in advocacy.
- 3. Describe interpersonal management skills.
- 4. Explain legal issues.
- 5. Evaluate parent involvement strategies.

# CDEC 2336 - Administration of Programs for Children III (WECM)

- 1. Define/apply adult learning theory and practice.
- 2. Plan staff development.
- 3. Demonstrate skills in supervision of curriculum planning and delivery.

#### CDEC 2341 – The School Age Child (WECM)

- 1. Outline growth and development of the school age child.
- 2. Analyze components of school age programs.
- 3. Develop materials, activities and guidance strategies.

# CDEC 2380 – Cooperative Education – Child Care Provider/Assistant (WECM)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

#### CDEC 2387 – Internship – Child Care Provider/Assistant (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Select, plan, implement, and evaluate developmentally appropriate activities for infants to preschool children. (Faculty Define)
- 4. Analyze components of the legal systems associated with the occupation and business/industry. (Faculty Define)
- 5. Identify strategies that promote the development of self-control in young children through positive guidance. (*Faculty Define*)
- 6. Explain the importance of safety and healthy indoor/outdoor environment. (Faculty Define)

# CDEC 2487 - Internship - Child Care Provider/Assistant (WECM)

 Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.

2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

# **CETT**

#### **CETT 1302 Electricity Principles (WECM)**

- 1. Identify basic principles of electricity (AC/DC).
- 2. Apply Ohm's Law to electrical calculations.
- 3. Use test equipment to measure continuity, voltage, and current values.
- 4. Use electrical safety practices.

# CHEM

# CHEM 1111 – General Chemistry I – Lab (ACGM)

- 1. Use basic apparatus and apply experimental methodologies used in the chemistry laboratory.
- 2. Demonstrate safe and proper handling of laboratory equipment and chemicals.
- 3. Conduct basic laboratory experiments with proper laboratory techniques.
- 4. Make careful and accurate experimental observations.
- 5. Relate physical observations and measurements to theoretical principles.
- 6. Interpret laboratory results and experimental data, and reach logical conclusions.
- 7. Record experimental work completely and accurately in laboratory notebooks and communicate experimental results clearly in written reports.
- 8. Design fundamental experiments involving principles of chemistry.
- 9. Identify appropriate sources of information for conducting laboratory experiments involving principles of chemistry.

#### CHEM 1112 – General Chemistry II – Lab (ACGM)

- 1. Use basic apparatus and apply experimental methodologies used in the chemistry laboratory.
- 2. Demonstrate safe and proper handling of laboratory equipment and chemicals.
- 3. Conduct basic laboratory experiments with proper laboratory techniques.
- 4. Make careful and accurate experimental observations.
- 5. Relate physical observations and measurements to theoretical principles.
- 6. Interpret laboratory results and experimental data, and reach logical conclusions.
- 7. Record experimental work completely and accurately in laboratory notebooks and communicate experimental results clearly in written reports.
- 8. Design fundamental experiments involving principles of chemistry and chemical instrumentation.
- 9. Identify appropriate sources of information for conducting laboratory experiments involving principles of chemistry.

# CHEM 1305 – Introductory Chemistry I (ACGM/Faculty Defined)

1. Calculate dimensional analysis problems with proper attention to units and significant figures. (Faculty Define)

- 2. Identify chemical and physical properties of matter. (Faculty Define)
- 3. Classify elements according to their location in the periodic table. (Faculty Define)
- 4. Balance chemical equations. (Faculty Define)
- 5. Perform specific heat calculations. (Faculty Define)
- 6. Perform density calculations. (Faculty Define)
- 7. Interpret the basic model of the atom and the fundamental particles. (Faculty Define)

Revised: April 2024

- 8. Name and predict the formulas of binary molecular compounds, ionic compounds and acids. (Faculty Define)
- 9. Write the electron configurations of atoms. (Faculty Define)

# CHEM 1307 – Introductory Chemistry II (ACGM/Faculty Defined)

- 1. Describe the VSEPR and Valence Bond theories in the shape of simple molecules. (Faculty Define)
- 2. Calculate stoichiometric problems. (Faculty Define)
- 3. Determine the rate of a reaction and its dependence on concentration, time, and temperature. (Faculty Define)
- 4. Apply the principles of equilibrium to aqueous systems using Le Châtelier"s Principle to predict the effects of concentration, pressure, and temperature changes on equilibrium mixtures. (Faculty Define)
- 5. Use the gas laws and basics of the Kinetic Molecular Theory to solve gas problems. (Faculty Define)
- 6. Identify the characteristics of acid, bases, and salts, and solve problems based on their quantitative relationships. (Faculty Define)
- 7. Discuss the construction and operation of galvanic and electrolytic electrochemical cells and determine standard and nonstandard cell potentials. (Faculty Define)

#### CHEM 1311 – General Chemistry I (ACGM)

- 1. Define the fundamental properties of matter.
- 2. Classify matter, compounds, and chemical reactions.
- 3. Determine the basic nuclear and electronic structure of atoms.
- 4. Identify trends in chemical and physical properties of the elements using the Periodic Table.
- 5. Describe the bonding in and the shape of simple molecules and ions.
- 6. Solve stoichiometric problems.
- 7. Write chemical formulas.
- 8. Write and balance equations.
- 9. Use the rules of nomenclature to name chemical compounds.
- 10. Define the types and characteristics of chemical reactions.
- 11. Use the gas laws and basics of the Kinetic Molecular Theory to solve gas problems.
- 12. Determine the role of energy in physical changes and chemical reactions.
- 13. Convert units of measure and demonstrate dimensional analysis skills.

#### CHEM 1312 - General Chemistry II (ACGM)

- 1. State the characteristics of liquids and solids, including phase diagrams and spectrometry.
- 2. Articulate the importance of intermolecular interactions and predict trends in physical properties.
- 3. Identify the characteristics of acids, bases, and salts, and solve problems based on their quantitative relationships.
- 4. Identify and balance oxidation-reduction equations, and solve redox titration problems.
- 5. Determine the rate of a reaction and its dependence on concentration, time, and temperature.
- 6. Apply the principles of equilibrium to aqueous systems using LeChatelier's Principle to predict the effects of concentration, pressure, and temperature changes on equilibrium mixtures.

- 7. Analyze and perform calculations with the thermodynamic functions, enthalpy, entropy, and free energy.
- 8. Discuss the construction and operation of galvanic and electrolytic electrochemical cells, and determine standard and non-standard cell potentials.
- 9. Define nuclear decay processes.
- 10. Describe basic principles of organic chemistry and descriptive inorganic chemistry.

#### CHEM 2123 – Organic Chemistry Laboratory I (ACGM)

- 1. Perform chemical experiments, analysis procedures, and waste disposal in a safe and responsible manner.
- 2. Utilize scientific tools such as glassware and analytical instruments to collect and analyze data.
- 3. Identify and utilize appropriate separation techniques such as distillation, extraction, and chromatography to purify organic compounds.
- 4. Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports.
- 5. Demonstrate a basic understanding of stereochemistry.
- 6. Classify organic compounds by structure, molecular orbitals, hybridization, resonance, tautomerism, polarity, chirality, conformation, and functionality in laboratory reports.
- 7. Identify organic molecules using appropriate organic nomenclature in laboratory reports.
- 8. Perform organic syntheses of molecules.
- 9. Describe organic reactions in terms of radical and ionic mechanisms in laboratory reports.
- 10. Use spectroscopic data to determine the structure of organic molecules.
- 11. Formulate appropriate reaction conditions for the synthesis of simple organic molecules.

#### CHEM 2289 - Academic Cooperative- Research and Design (ACGM/Faculty Define)

- 1. Design and execute independent research using appropriate methodologies. (Faculty Defined)
- 2. Communicate results in a scientific manner. (Faculty Defined)

# CHEM 2323 - Organic Chemistry I (ACGM)

- 1. Classify organic compounds by structure, molecular orbitals, hybridization, resonance, tautomerism, polarity, chirality, conformation, and functionality.
- 2. Identify organic molecules using appropriate organic nomenclature.
- 3. Describe the principle reactions for syntheses of molecules, ions, and radicals.
- 4. Describe organic reactions in terms of radical and ionic mechanisms.
- 5. Describe the use of spectroscopic data to determine the structure of organic molecules.
- 6. Formulate appropriate reaction conditions for the synthesis of simple organic molecules.

#### **CNBT**

# CNBT 1266 - Practicum (or Field Experience) - Construction Engineering Technology/Technician (WECM/Faculty Defined)

 Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.

- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Students will conduct estimation of materials along with the cost of materials.
- 4. Students will perform the framing of walls, doors, and windows.
- 5. Students will install doors, windows, and trim work.

# **CNBT 1300 – Residential and Light Commercial Blueprint Reading (WECM)**

- 1. Identify construction drawing symbols and abbreviations.
- 2. Interpret a set of construction drawings
- 3. Correlate elevations, sections, details, plan views, schedules, general notes, and use of architectural and engineering scales.

#### CNBT 1302 - Mechanical, Plumbing & Electrical Systems in Construction I (WECM)

- 1. Identify equipment and components of electrical, plumbing, heating, air conditioning, and ventilation, electrical, and plumbing systems.
- 2. Describe the relationships between the mechanical, plumbing, and electrical systems.
- 3. Discuss implications of sustainable building systems on design.

# CNBT 1311 - Construction Methods and Materials I (WECM)

- 1. Identify construction materials.
- 2. List their applications.
- 3. Describe the various methods of construction.
- 4. Explain the development and use of new materials being introduced to the construction industry under sustainable building standards.

# CNBT 1316 - Construction Technology I (WECM)

- 1. Demonstrate safety practices and procedures.
- 2. Use tools and equipment.
- 3. Estimate material requirements from blueprints.
- 4. Demonstrate methods and techniques used in various types of site preparation and foundations.

#### CNBT 1342 – Building Codes and Inspections (WECM)

- 1. Identify various construction classifications and occupancy categories.
- 2. Cross-reference the guidelines, tables, charts, and specifications as presented in the building codes.
- 3. Determine if the construction meets building codes and standards.

# CNBT 1346 – Construction Estimating I (WECM)

- Explain estimating procedures.
- 2. Estimate materials from blueprints.
- 3. Estimate cost of waste removable and recycling related to sustainable construction processes.
- 4. Calculate labor units and costs.

#### CNBT 1359 - Project Scheduling (WECM)

- 1. Prepare flow chart diagrams using the precedence networks.
- 2. Utilize the "forward pass" and "back pass" in scheduling procedures.

- 3. Construct bar charts.
- 4. Calculate critical paths in scheduling.

# CNBT 1391 - Special Topics in Construction/Building Technology/Technician (WECM)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

# CNBT 2305 – Building and Contracting (WECM)

- 1. Explain the terms related to building and contracting.
- 2. Describe the organizational structure of a successful construction business.
- 3. List the duties of owner, accountant, estimator, salesman, superintendent, and other field personnel.
- 4. Define methods used in selecting, coordinating, and dealing with subcontractors.
- 5. Develop a marketing, financial, and scheduling plan.

# CNBT 2315 - Construction Specifications and Contracts (WECM)

- 1. Explain the purpose of construction specifications.
- 2. Describe the Construction Specifications Institute (CSI) divisions in contract documents.
- 3. Identify the typical legal documents required for construction.
- 4. Identify the typical legal documents required by sustainable rating systems.

# CNBT 2342 - Construction Management I (WECM)

- 1. Identify types of construction and organizational structures.
- 2. Explain purposes for various construction documents.
- 3. Describe the roles and responsibilities of the key players in the building industry.
- 4. Identify environmental health and safety agency requirements.
- 5. Identify the various construction crafts and trades.
- 6. Describe sustainable building practices and standards.
- 7. Define terms associated with construction supervision, leadership, motivation, problem solving, and decision making.
- 8. Demonstrate problem solving and decision-making skills in construction problems.
- 9. Apply sustainable building codes and concepts.
- 10. Demonstrate techniques for successful contractor interaction including professional protocol and communication.

# **COMM**

#### **COMM 1307 – Introduction to Mass Communication (ACGM)**

- 1. Demonstrate understanding of the fundamental types, purposes, and relevance of mass communication.
- 2. Demonstrate understanding of mass media in historic, economic, political, and cultural realms.
- 3. Demonstrate understanding of the business aspects of mass media and the influence of commercialism.
- 4. Demonstrate understanding of evolving media technologies and relevant issues and trends.
- 5. Demonstrate understanding of mass media values, ethics, laws, and industry guidelines.

- 6. Demonstrate understanding of globalization of mass media.
- 7. Demonstrate understanding of media effects on society.

#### **COMM 2302 – Principles of Journalism ACGM)**

- 1. Demonstrate an understanding of how recent trends in the news media industry (ownership, technological innovation, and audience consumption) shape news reporting on social issues.
- 2. Discuss and critique today's news disseminated through various media.
- 3. Demonstrate an understanding of the role of the news media in shaping our perception of the world
- 4. Demonstrate an understanding of the effects of news media on policy-making.

# COMM 2311 - Media Writing (ACGM)

- 1. Evaluate newsworthiness of information.
- 2. Demonstrate an understanding of story idea creation.
- 3. Comprehend the basic structure and format of a news story (lead, body, and conclusion).
- 4. Demonstrate an understanding of beat reporting and feature writing.
- 5. Demonstrate an understanding of multimedia journalism and alternative story forms.
- 6. Demonstrate an understanding of journalistic ethics.

#### COMM 2366 - Film Appreciation (ACGM)

- 1. Analyze film through written response.
- 2. Demonstrate a basic knowledge of film history, form, and genre.
- 3. Describe the collaborative nature of cinema and the many jobs required to develop a motion picture.
- 4. Discuss/Describe the relationship of cinema to society as it relates to his/her perspective.

# COSC

#### **COSC 1301 – Introduction to Computing (ACGM)**

- 1. Describe the fundamentals of computing infrastructure components: hardware, application software, operating systems, and data communications systems.
- 2. Delineate and discuss societal issues related to computing, including the guiding principles of professional and ethical behavior.
- 3. Demonstrate the ability to create and use documents, spreadsheets, presentations and databases in order to communicate and store information as well as to support problem solving.
- 4. Describe the need and ways to maintain security in a computing environment.

# COSC 1336 – Programming Fundamentals I (ACGM)

- 1. Describe how data are represented, manipulated, and stored in a computer.
- 2. Categorize different programming languages and their uses.
- 3. Understand and use the fundamental concepts of data types, structured programming, algorithmic design, and user interface design.
- 4. Demonstrate a fundamental understanding of software development methodologies, including modular design, pseudo code, flowcharting, structure charts, data types, control structures, functions, and arrays.
- 5. Develop projects that utilize logical algorithms from specifications and requirements statements.
- 6. Demonstrate appropriate design, coding, testing, and documenting of computer programs that implement project specifications and requirements.

7. Apply computer-programming concepts to new problems or situations.

#### COSC 1337 – Programming Fundamentals II (ACGM)

- 1. Identify and explain a programming development lifecycle, including planning, analysis, design, development, and maintenance.
- 2. Demonstrate a basic understanding of object-oriented programming by using structs and classes in software projects.
- 3. Use object-oriented programming techniques to develop executable programs that include elements such as inheritance and polymorphism.
- 4. Document and format code in a consistent manner.
- 5. Apply basic searching and sorting algorithms in software design.
- 6. Apply single- and multi-dimensional arrays in software.
- 7. Use a symbolic debugger to find and fix runtime and logical errors in software.
- 8. Demonstrate a basic understanding of programming methodologies, including object- oriented, structured, and procedural programming.
- 9. Describe the phases of program translation from source code to executable code.

#### COSC 1436 Programming Fundamentals I (ACGM)

- 1. Describe how data are represented, manipulated, and stored in a computer.
- 2. Categorize different programming languages and their uses.
- 3. Understand and use the fundamental concepts of data types, structured programming, algorithmic design, and user interface design.
- 4. Demonstrate a fundamental understanding of software development methodologies, including modular design, pseudo code, flowcharting, structure charts, data types, control structures, functions, and arrays.
- 5. Develop projects that utilize logical algorithms from specifications and requirements statements.
- 6. Demonstrate appropriate design, coding, testing, and documenting of computer programs that implement project specifications and requirements.
- 7. Apply computer programming concepts to new problems or situations.

# **COSC 2325 – Computer Organizations (ACGM)**

- 1. Explain contemporary computer system organization.
- 2. Describe data representation in digital computers.
- 3. Explain the concepts of memory hierarchy, interrupt processing, and input/output mechanisms.
- 4. Measure the performance of a computer system.
- 5. Design and develop assembly language applications.
- 6. Explain the interfaces between software and hardware components.
- 7. Explain the design of instruction set architectures.
- 8. Develop a single-cycle processor.
- 9. Explain the concept of virtual memory and how it is realized in hardware and software.
- 10. Explain the concepts of operating system virtualization.

#### **COSC 2336 – Programming Fundamentals III (ACGM)**

- 1. Design and develop programs that implement basic data structures, including stacks, queues, linked lists, hash tables, trees, and graphs.
- 2. Apply recursive techniques and algorithms to solve problems.
- 3. Implement searching and sorting algorithms.

- 4. Understand algorithm efficiency, Big-O notation, and why it should be considered in programming.
- 5. Analyze and select appropriate data structures to implement a solution to a problem.
- 6. Design and implement data structures using classes and incorporating object-oriented concepts.
- 7. Demonstrate best practices of software development including testing, validation, and documentation.

## **COSC 2425 – Computer Organizations (ACGM)**

- 1. Explain contemporary computer system organization.
- 2. Describe data representation in digital computers.
- 3. Explain the concepts of memory hierarchy, interrupt processing, and input/output mechanisms.
- 4. Measure the performance of a computer system.
- 5. Design and develop assembly language applications.
- 6. Explain the interfaces between software and hardware components.
- 7. Explain the design of instruction set architectures.
- 8. Develop a single-cycle processor.
- 9. Explain the concept of virtual memory and how it is realized in hardware and software.
- 10. Explain the concepts of operating system virtualization.

## **COSC 2436 Programming Fundamentals III (ACGM)**

- 1. Design and develop programs that implement basic data structures, including stacks, queues, linked lists, hash tables, trees, and graphs.
- 2. Apply recursive techniques and algorithms to solve problems.
- 3. Implement searching and sorting algorithms.
- 4. Understand algorithm efficiency, Big-O notation, and why it should be considered in programming.
- 5. Analyze and select appropriate data structures to implement a solution to a problem.
- 6. Design and implement data structures using classes and incorporating object-oriented concepts.
- 7. Demonstrate best practices of software development including testing, validation, and documentation.

## **CRIJ**

# CRIJ 1301 – Introduction to Criminal Justice (ACGM)

- 1. Describe the history and philosophy of the American criminal justice system.
- 2. Explain the nature and extent of crime in America.
- 3. Analyze the impact and consequences of crime.
- 4. Evaluate the development, concepts, and functions of law in the criminal justice system.
- 5. Describe the structure of contemporary federal, state, and local justice agencies and processes.

# CRIJ 1306 – Court Systems and Practices (ACGM)

- 1. Describe the American judicial systems (civil, criminal, and juvenile), their jurisdiction, development and structure.
- 2. Analyze the function and dynamics of the courtroom work group.
- 3. Identify judicial processes from pretrial to appeal.

4. Describe the significant Constitutional Amendments, doctrines, and other sources of law in the American judicial system.

## CRIJ 1307 - Crime in America (ACGM/Faculty Defined)

- 1. Describe the history of American criminal activity from a historical perspective.
- 2. Identify the social and policy factors that influence crime.
- 3. Analyze the social characteristics of certain crimes.
- 4. Identify crime trends and their impact upon society.

#### CRIJ 1310 – Fundamentals of Criminal Law (ACGM)

- 1. Identify the elements of crimes and defenses under Texas statutes, Model Penal Code, and case law.
- 2. Classify offenses and articulate penalties for various crimes.
- 3. Compare culpable mental states when assigning criminal responsibility.
- 4. Assess the impact of history and philosophy on current criminal laws.
- 5. Evaluate the application of criminal law to other areas of criminal justice such as law enforcement and corrections.

# CRIJ 1313 – Juvenile Justice System (ACGM/Faculty Defined)

- 1. Analyze how juvenile offenders are defined and classified in the U.S. juvenile justice system.
- 2. List the theories of delinquency and intervention programs.
- 3. Describe how juveniles are handled by the police and courts.

#### CRIJ 2313 - Correctional Systems & Practices (ACGM)

- 1. Describe the organization and operation of correctional systems and alternatives to institutionalization.
- 2. Describe treatment and rehabilitative programs.
- 3. Differentiate between the short-term incarceration and long-term institutional environments.
- 4. Evaluate current and future correctional issues.
- 5. Identify the Constitutional rights applicable to the correctional setting.

#### CRIJ 2323: Legal Aspects of Law Enforcement (ACGM/Faculty Defined)

- 1. Explain the basis of the U.S. Constitution and Bill of Rights, including special emphasis on the freedom of the individual and human rights.
- 2. Understand the procedures to be followed in the prevention and suppression of offenses.
- 3. Understand the requirements and procedures for search warrants.
- 4. Understand the legal authorities as they pertain to the role of the peace officer and the rights of citizens regarding arrest.
- 5. Identify the liability assumed resulting from improper acts or failure to act during daily law enforcement duties.

#### CRIJ 2328 – Police Systems and Practices (ACGM)

- 1. Describe the types of police agencies and explain the role of police in America within the context of a democratic society.
- 2. Describe means and methods utilized to ensure police accountability.
- 3. Explain the historical development of policing.
- 4. Describe the selection process for police officers.

5. Compare and contrast organizational structures, policies, strategies and tactics employed to ensure police effectiveness, efficiency and equity.

## **CRPT**

# CRPT 1311 - Roof Systems (WECM)

- 1. Use safe-work procedures.
- 2. Use and maintain tools and equipment.
- 3. Describe parts of a ceiling and roof system.
- 4. Construct a roof system to specifications.
- 5. List the construction sequence steps.
- 6. Layout, cut, frame and finish a gable and hip roof with valley/intersection.
- 7. Describe the principles of design and the functions of roof design.

## CRPT 1315 – Wall Systems (WECM)

- 1. Demonstrate safe-work practices.
- 2. Use and maintain tools and equipment.
- 3. Describe parts of a wall system.
- 4. Construct a wall to specifications.

#### CRPT 1325 – Forms and Foundations I (WECM)

- 1. Use safe-work practices.
- 2. Use and maintain tools and equipment.
- 3. Describe components of basic form systems.
- 4. Layout building lines.
- 5. Construct basic form systems to specifications.

## **DFTG**

#### **DFTG 1313 – Drafting for Specific Occupations (WECM)**

- 1. Define the elements of drafting that pertain to specific or various occupational fields.
- 2. Produce working drawings and sketches relevant to an individual technical discipline.

#### **DFTG 1325 – Blueprint Reading and Sketching (WECM)**

- 1. Interpret working drawings including dimensions, notes, symbols, sections, and auxiliary views.
- 2. Sketch pictorials and multi-view drawings.

## **DFTG 1405 – Introduction to Technical Drawing (WECM)**

- 1. Read, interpret, and develop technical sketches and drawings, lettering techniques, annotations, scales, line types, line weights, geometric construction, orthographic projections, pictorial views, sectional views, dimension drawings, calculations, and measurements.
- 3. Identify terminology and basic functions used with 2D and 3D computer-aided design software.

## **DFTG 1409 – Basic Computer-Aided Drafting (WECM)**

- 1. Identify terminology and basic functions used with CAD software.
- 2. Use CAD hardware and software to create, organize, display, and plot/print working drawings.

3. Use file management techniques.

#### **DFTG 1417 – Architectural Drafting – Residential (WECM)**

1. Utilize architectural terms, symbols, residential construction materials, and processes to produce a set of residential construction drawings including site plan, floor plan, elevations, wall sections, schedules, details, and foundation plan using reference materials.

#### DFTG 1430 - Civil Drafting I (WECM)

- 1. Interpret field notes.
- 2. Develop documents for a civil project related to drainage and utilities infrastructure, to include a comprehension of related calculations.

# DFTG 1491 – Special Topics in Drafting and Design Technology/Technician, General (WECM)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends.

## **DFTG 2323 – Pipe Drafting (WECM)**

- 1. Create drawings of foundations, structural supports, and process equipment.
- 2. Identify symbols and research specifications.
- 3. Generate a bill of material list
- 4. Use charts and standards.
- 5. Generate isometric drawings.
- 6. Calculate measurements for pipe fittings.

## DFTG 2386 - Internship: Drafting and Design Technology (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Apply academic knowledge gained in the classroom, to solve practical real-world problems in a professional setting, showing understanding of industry customs and practices by using industry-specific terminology appropriately and legal regulations. (Faculty Defined)
- 4. Develop professionally relevant competencies and relationships in a professional setting: working together with the internship supervisor and faculty instructor to develop a learning agreement by identifying areas for growth. (Faculty Defined)
- 5. Evaluate the internship experience: evaluate critically to what extent the internship experience reflects the broad range of experiences available in the professional fields most relevant to the internship. (Faculty Defined)
- Express ideas clearly with supervisors and colleagues: receive professional feedback through constant individual and group meetings with the supervisor and faculty instructor. (Faculty Defined)

# **DFTG 2417 – Descriptive Geometry (WECM)**

1. Describe spatial relationships.

- 2. Use sequential thinking.
- 3. Create views necessary to show object's true size and shape/development using points, lines, and planes in space.

# **DFTG 2421 – Topographical Drafting (WECM)**

- 1. Interpret survey data and topographic symbols.
- 2. Produce topographical drawings.

# **DFTG 2428 – Architectural Drafting – Commercial (WECM)**

1. Utilize architectural terms, symbols, commercial construction materials and processes to produce a set of construction drawings including a site plan, floor plans, reflected ceiling plans, sections, elevations, schedules, and details.

## DFTG 2432 – Advanced Computer-Aided Drafting (WECM /Faculty Defined)

- 1. Utilize advanced technologies in computer-aided design
- 2. Including animation, rendering, and 3D modeling and output.
- 3. Use a customized CAD system to create documents and/or solid models. (Faculty Defined)
- 4. Use OLE with external software. (Faculty Defined)

#### **DFTG 2440 – Solid Modeling/Design (WECM)**

- 1. Create three-dimensional solid model objects.
- 2. Generate pictorial and orthographic drawings.

#### DFTG 2386 - Internship - Drafting and Design Technology/Technician, General (WECM/Faculty Defined)

- Apply academic knowledge gained in the classroom, to solve practical real-world problems in a
  professional setting, showing understanding of industry customs and practices by using
  industry-specific terminology appropriately and legal regulations.
- 2. Develop professionally relevant competencies and relationships in a professional setting: working together with the internship supervisor and faculty instructor to develop a learning agreement by identifying areas for growth.
- 3. Evaluate the internship experience: evaluate critically to what extent the internship experience reflects the broad range of experiences available in the professional fields most relevant to the internship. (Faculty Defined)
- Express ideas clearly with supervisors and colleagues: receive professional feedback through constant individual and group meetings with the supervisor and faculty instructor. (Faculty Defined)

## **DMSO**

# DMSO 1161 – Clinical – Diagnostic Medical Sonography/Sonographer and Ultrasound Technician (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving equipment and procedures.
- 2. Demonstrate legal and ethical behavior.
- 3. Demonstrate safety practices, interpersonal and teamwork skills.
- 4. Demonstrate appropriate written and verbal communication skills using the terminology of the occupation.

- 5. Identify abnormalities on an OB/GYN sonographic examination. (Faculty Defined)
- 6. Identify abnormalities on an Abdominal & Superficial Structures sonographic examination. (Faculty Defined)

# DMSO 1302 – Basic Ultrasound Physics (WECM)

- 1. Describe the interaction of sound and soft tissues.
- 2. Explain sound production and propagation.
- 3. Summarize the basic principles and techniques of ultrasound.

## DMSO 1342 - Intermediate Ultrasound Physics (WECM)

- 1. Describe pulse-echo principles and actions.
- 2. Identify instrument options and transducer selection.
- 3. Identify common image artifacts.
- 4. Describe potential bioeffects.

# DMSO 1360 – Clinical- Diagnostic Medical Sonography/Sonographer and Ultrasound Technician (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving equipment and procedures.
- 2. Demonstrate legal and ethical behavior.
- 3. Demonstrate safety practices, interpersonal and teamwork skills.
- 4. Demonstrate appropriate written and verbal communication skills using the terminology of the occupation.
- 5. Demonstrate a proper complete OB/GYN sonographic examination. (Faculty Defined)
- 6. Demonstrate a proper complete Abdominal & Superficial Structures sonographic examination. (Faculty Defined)

#### DMSO 1441 – Abdominopelvic Sonography (WECM/Faculty Defined)

- 1. Identify the sonographic appearances of normal abdominal and pelvic structures.
- 2. Explain physiology of abdominal and pelvic organs.
- 3. Describe, select and demonstrate the appropriate scanning techniques according to standard protocol guidelines.
- 4. Select the appropriate transducer for the area of interest. (Faculty Defined)

# DMSO 2160 – Clinical- Diagnostic Medical Sonography/Sonographer and Ultrasound Technician (WECM/Faculty Defined)

- 1. Apply theory, concepts, and skill involving equipment and procedures.
- 2. Demonstrate legal and ethical behavior.
- 3. Demonstrate safety practices, interpersonal and teamwork skills.
- 4. Demonstrate appropriate written and verbal communication skills using the terminology of the occupation.
- 5. Demonstrate proper invasive procedures in Abdominal, OB/GYN, and Superficial Structures.

## DMSO 2245 – Advanced Sonography Practices (WECM/Faculty Defined)

- 1. Describe selected advanced sonographic practices and procedures and apply these to case study interpretation and review.
- 2. Compare and contrast various abdominal sonographic and other imaging modalities.
- 3. Identify abnormal abdominal and pelvic structures. (Faculty Defined)
- 4. Evaluate abdominal case studies. (Faculty Defined)

#### DMSO 2253 – Sonography of Superficial Structures (WECM/Faculty Defined)

- 1. Identify sonographic appearance of normal and abnormal superficial structures.
- 2. Identify and demonstrate appropriate scanning technique using standard protocol guidelines.
- 3. Evaluate patient history and laboratory data as it relates to sonography.
- 4. Select the appropriate transducer for area of interest. (Faculty Defined)

#### DMSO 2342 – Sonography of High Risk Obstetrics (WECM)

- 1. Identify and differentiate normal and abnormal fetal and maternal structures.
- 2. Demonstrate pertinent measurement techniques and scanning techniques using standard protocols.
- 3. Evaluate patient history and laboratory data as it relates to ultrasound.
- 4. Select appropriate transducer for area of interest.

#### DMSO 2343 – Advanced Ultrasound Physics (WECM)

- 1. Describe and discuss ultrasound principles and instrumentation including modes of operation, techniques for recording sonographic images, and advances in ultrasound technology.
- 2. Identify techniques for recording sonographic images.
- 3. Identify advances in ultrasound technology.

# DMSO 2361 - Clinical- Diagnostic Medical Sonography/Sonographer and Ultrasound Technician (WECM/Faculty Defined)

1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.

 Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

#### DMSO 2405 – Sonography of Obstetrics/Gynecology (WECM)

- 1. Identify the sonographic appearances of normal and abnormal female pelvis.
- 2. Identify normal and abnormal obstetrical findings.
- 3. Demonstrate appropriate scanning techniques using standard protocols.
- 4. Evaluate patient history and laboratory data as it relates to sonography.

#### DMSO 2441 – Sonography of Abdominopelvic Pathology (WECM)

- 1. Identify abnormal abdominal and pelvic structures.
- 2. Identify scanning techniques using standard protocol guidelines.
- 3. Evaluate patient history and laboratory data as it relates to sonography.

## DMSO 2451 - Doppler Physics (WECM)

- 1. Describe Doppler and hemodynamic principles and actions.
- 2. Identify instrument options and transducer selection.
- 3. Interpret methods of Doppler flow analysis.
- 4. Differentiate common image artifacts.
- 5. Describe potential bioeffects.

# **DRAM**

#### DRAM 1120 – Theater Practicum I (ACGM)

- 1. Use collaboration in the creation of theatrical productions.
- 2. Demonstrate the practical application of appropriately leveled theatrical skills and procedures.
- 3. Apply critical thinking skills required for the creation of a theatrical production.

#### DRAM 1351 - Acting I (ACGM)

- 1. Analyze scripts from the viewpoint of the actor.
- 2. Analyze, develop, and perform a character.
- 3. Demonstrate effective and safe use of the voice and body.
- 4. Define and discuss terms and concepts using the vocabulary of theater.
- 5. Perform at an appropriately skilled level in ensemble building exercises, scenes and final projects, which may include participation in plays.

## **ECON**

#### ECON 2301 – Principles of Macroeconomics (ACGM)

- 1. Explain the role of scarcity, specialization, opportunity cost and cost/benefit analysis in economic decision-making.
- 2. Identify the determinants of supply and demand; demonstrate the impact of shifts in both market supply and demand curves on equilibrium price and output.
- 3. Define and measure national income and rates of unemployment and inflation.
- 4. Identify the phases of the business cycle and the problems caused by cyclical fluctuations in the

- market economy.
- 5. Define money and the money supply; describe the process of money creation by the banking system and the role of the central bank.
- 6. Construct the aggregate demand and aggregate supply model of the macro economy and use it to illustrate macroeconomic problems and potential monetary and fiscal policy solutions.
- 7. Explain the mechanics and institutions of international trade and their impact on the macro economy.
- 8. Define economic growth and identify sources of economic growth.

#### ECON 2302 – Principles of Microeconomics (ACGM)

- 1. Explain the role of scarcity, specialization, opportunity cost and cost/benefit analysis in economic decision-making.
- 2. Identify the determinants of supply and demand; demonstrate the impact of shifts in both market supply and demand curves on equilibrium price and output.
- 3. Summarize the law of diminishing marginal utility; describe the process of utility maximization.
- 4. Calculate supply and demand elasticities, identify the determinants of price elasticity of demand and supply, and demonstrate the relationship between elasticity and total revenue.
- 5. Describe the production function and the Law of Diminishing Marginal Productivity; calculate and graph short-run and long-run costs of production.
- 6. Identify the four market structures by characteristics; calculate and graph the profit maximizing price and quantity in the output markets by use of marginal analysis.
- 7. Determine the profit maximizing price and quantity of resources in factor markets under perfect and imperfect competition by use of marginal analysis.
- 8. Describe governmental efforts to address market failure such as monopoly power, externalities, and public goods.
- 9. Identify the benefits of free trade using the concept of comparative advantage.

# **EDUC**

#### EDUC 1300 – Learning Framework (ACGM/Faculty Defined)

- 1. Describe the research and theory in the psychology of learning, cognition, and motivation.
- 2. Identify learning styles and analyze various factors that impact learning.
- 3. Describe different perspectives of learning and adapt to different learning environments.
- 4. Demonstrate integration of basic study skills, critical thinking skills, and communication skills.
- 5. Identify and use college resources.

# **EDUC 1301 – Introduction to the Teaching Profession (ACGM/Faculty Defined)**

- 1. Identify current issues influencing the field of education and teacher professional development.
- 2. Analyze the culture of schooling and classrooms from the perspectives of language, gender, socioeconomic, ethnic, and disability-based academic diversity and equity.
- 3. Provide examples from classroom observations and course activities that demonstrate understanding of educational pedagogy and professional responsibilities of teachers.
- 4. Evaluate personal motivations, educational philosophies, and factors related to educational career decision making.

- 5. Recognize the various multiple intelligences/learning styles in order to be able to implement instructional practices that meet the needs of all students.
- 6. Complete 16 field observation hours in K-12 schools. (Faculty defined)

# EDUC 2301 - Introduction to Special Populations (ACGM/Faculty Defined)

- 1. Describe the characteristics of exceptional learners (e.g. Learning Disabilities, Gifted and Talented), including legal implications.
- 2. Describe and analyze characteristics of diverse learners (e.g. language, gender, sexual orientation, race, ethnicity) and how diversity impacts learning.
- 3. Describe the impact of socio-economic status on learning and creating equitable classrooms.
- 4. Demonstrate an understanding of the benefits and challenges of racial, ethnic, and other types of cultural diversity in the classroom.
- 5. Complete 16 field observation hours in K-12 schools. (Faculty defined)

## **ELMT**

#### **ELMT 1301 – Programmable Logic Controllers (WECM)**

- 1. Explain terminology; select hardware components
- 2. Predict PLC operation based on ladder logic diagrams.
- 3. Program a PLC to perform various control functions.

## **ELMT 1305 – Basic Fluid Power (WECM)**

- 1. Identify fluid power symbols; demonstrate knowledge of basic fluid power theory
- 2. Demonstrate knowledge of component operation.
- 3. Generate basic fluid power circuits.
- 4. Demonstrate fluid power circuits using electrical and manual controls.

## **ELMT 2339 – Advanced Programmable Logic Controllers (WECM)**

- 1. Develop ladder logic to utilize advanced PLC functions.
- 2. Compose a ladder logic program to demonstrate an advanced industrial control application.
- 3. Apply advanced programming techniques for specialized applications.

## **ELPT**

## ELPT 1315 - Electrical Calculations I (WECM)

- 1. Utilize a calculator to perform operations involving fractions and decimals.
- 2. Compute percentages utilizing ratio and proportions.
- 3. Convert unit values.
- 4. Solve simple equations.
- 5. Calculate areas and volumes of geometric solids.

#### **ELPT 1320 – Fundamentals of Electricity II (WECM)**

- 1. Explain AC power waveform generation.
- 2. Define capacitance and inductance.
- 3. Determine the values of AC voltage, current, and impedance for circuits containing resistors, capacitors, and inductors.

- 4. Explain and calculate power factor in circuits.
- 5. Utilize electrical measuring instruments.

## **ELPT 1321 – Introduction to Electrical Safety and Tools (WECM)**

- 1. Explain electrical hazards and how to avoid them in the workplace.
- 2. Discuss safety issues concerning lockout/tagout procedures.
- 3. Demonstrate safe work habits using common hand and power tools for electricians.

#### **ELPT 1325 – National Electrical Code I (WECM)**

- 1. Locate and interpret the sections in the NEC that pertain to electrical installations.
- 2. Calculate the size of conductors, boxes, raceways, and overcurrent protective devices for branch circuits supplying electrical equipment.
- 3. Calculate conductors, overcurrent protection, and service equipment as applied to building services.
- 4. Compute the size of branch circuits, feeders, and equipment for motors.

#### **ELPT 1329 – Residential Wiring (WECM)**

- 1. Compute the circuit sizes needed for the installation of branch circuits, feeders, and service entrance conductors.
- 2. Explain the proper installation of wiring devices according to electrical codes.
- 3. Demonstrate grounding methods.
- 4. Install ground fault circuits.
- 5. Identify residential wiring methods.
- 6. Demonstrate proper safety procedures.

#### **ELPT 1341 – Motor Control (WECM)**

- Identify practical applications of jogging and plugging.
- 2. Describe the types of motor braking and their operating principles.
- 3. Explain different starting methods for large motors.
- 4. Demonstrate proper troubleshooting methods on circuits using wiring and schematic diagrams.

## **ELPT 1345 – Commercial Wiring (WECM)**

- 1. Interpret electrical blueprints/drawings.
- 2. Compute the circuit sizes and overcurrent protection needed for the installation of branch circuits, feeders, and service entrance conductors.
- 3. Explain the proper installation of wiring devices according to the National Electrical Code (NEC) and local electrical codes.
- 4. Demonstrate grounding methods.
- 5. Identify commercial wiring methods including conduit bending.
- 6. Demonstrate proper safety procedures.

## **ELPT 1357 – Industrial Wiring (WECM)**

- 1. Interpret electrical blueprints/drawings.
- 2. Compute circuit sizes and overcurrent protection for the installation of branch circuits, feeders, and service entrance conductors.

- 3. Explain the proper installation of wiring devices according to electrical codes.
- 4. Demonstrate grounding methods.
- 5. Identify industrial wiring methods including conduit bending.
- 6. Demonstrate proper safety procedures.

# ELPT 1391 – Special Topics in Electrical and Power Transmission Installer, General (WECM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

## ELPT 2319 - Programmable Logic Controllers I (WECM)

- 1. Identify and describe digital logic circuits and explain numbering systems.
- 2. Explain the operation of programmable logic controllers.
- 3. Convert ladder diagrams into programs.
- 4. Incorporate timers and counters utilizing programmable logic controllers.
- 5. Execute and evaluate programs.

## **ELPT 2323 – Transformers (WECM)**

- 1. Describe how transformers operate and the operating characteristics of various types.
- 2. Compute transformer sizes for various applications.
- 3. Summarize National Electric Code (NEC) regulations governing the installation of transformers.
- 4. Explain the types and purposes of grounding transformers.
- 5. Demonstrate proper safety procedures.

#### **ELPT 2325 – National Electrical Code II (WECM)**

- 1. Explain hazardous location classifications and divisions and wiring methods allowed in these locations.
- 2. State the rules for electrical installation in special locations.
- 3. Calculate conductor sizes and overload protection required for residential, commercial, and industrial locations.
- 4. Select appropriate sections in the NEC for specific applications.

#### **ELPT 2335 – Electrical Theory and Devices (WECM)**

- 1. Define phasor and show how to represent a phasor in rectangular form and in polar form.
- 2. Convert between rectangular and polar forms.
- 3. Graphically depict the relationship of true power, reactive power, and apparent power before and after power factor correction.
- 4. Measure and calculate power and the power factor in three-phase systems.
- 5. Measure power in a three-phase system using the One Wattmeter Method and the Two Wattmeter Method.

## **ELTN**

#### **ELTN 1343 – Electrician Troubleshooting (WECM)**

- 1. Use multimeters to perform tests on electrical equipment.
- 2. Discuss various types of circuits and electrical systems.
- 3. Demonstrate the proper way to test transformers and motors.
- 4. Identify a short circuit, open circuit, and a closed circuit.
- 5. Troubleshoot electric motors and control circuits.

## ELTN 1391 - Special Topics in Electrician (WECM/Faculty Defined)

4. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

## **EMSP**

# EMSP 1160 – Clinical – Emergency Medical Technology/Technician (EMT Paramedic) (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills.
- 3. Appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

# EMSP 1161 – Clinical – Emergency Medical Technology/Technician (EMT Paramedic) (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills.
- 3. Appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

## EMSP 1355 – Trauma Management (WECM)

- 1. Integrate the pathophysiological assessment findings to formulate a field impression.
- 2. Implement the treatment plan for the trauma patient.
- 3. Integrate multiple determinants of trauma conditions into clinical care.

# EMSP 1356 – Patient Assessment and Airway Management (WECM)

- 1. Perform a history and comprehensive physical exam on various patient populations.
- 2. Establish and/or maintain a patient airway.
- 3. Demonstrate oxygenation and ventilation of a patient.
- 4. Differentiate respiratory distress, failure and arrest.
- 5. Interpret results of monitoring devices.

## EMSP 1501 – Emergency Medical Technician (WECM)

1. Demonstrate proficiency in cognitive, psychomotor and affective domains for the Emergency Medical Technician (EMT) in accordance with the current guidelines of the credentialing agency.

- 2. Display a working knowledge of clinical information and related topics relevant to the practice of pre-hospital emergency medical care of the EMT-Basic Level. (Faculty Defined)
- 3. Demonstrate the ability to competently perform all applicable skills at the EMT-Basic Level. (Faculty Defined)
- 4. Exhibit attitudes and behaviors consistent with the ethics and professionalism expected of the EMT-Basic. (Faculty Defined)

#### EMSP 2243 – Assessment Based Management (WECM)

- 1. Integrate pathophysiological principles and assessment findings to formulate a field impression.
- 2. Implement a treatment plan at the paramedic level.

## EMSP 2260 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (WECM)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry
- 2. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

## EMSP 2261 – Clinical – Emergency Medical Technology/Technician (EMT Paramedic) (WECM/)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills
- 3. Appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

## EMSP 2305 - EMS Operations (WECM)

- 1. Identify principles of EMS Operations.
- 2. Describe management of routine and specialized incidents.

#### EMSP 2306 – Emergency Pharmacology (WECM)

- 1. Categorize the classification of drugs.
- 2. Calculate drug dosages.
- 3. Identify the therapeutic use, routes of administration, indications, contraindications, and adverse effects.

## EMSP 2330 – Special Populations (WECM)

- 1. Integrate pathophysiological assessment findings to formulate a field impression.
- 2. Implement a treatment plan for diverse patients of special populations.
- 3. Integrate multiple determinants of such conditions into clinical care.

# EMSP 2360 – Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (WECM/Faculty Defined)

 Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the

- business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

#### EMSP 2434 – Medical Emergencies (WECM)

- 1. Integrate pathophysiological assessment findings to formulate a field impression.
- 2. Implement a treatment plan for the medical patient.
- 3. Integrate multiple determinants of medical conditions into clinical care.

# EMSP 2444 – Cardiology (WECM/Faculty Defined)

- 1. Integrate pathophysiological principles and assessment findings to formulate a field impression.
- 2. Implement a treatment plan for the cardiac patient.
- 3. Display a working knowledge of clinical information and related topics relevant to the practice of pre-hospital emergency care of the paramedic level. (Faculty Defined)
- 4. Demonstrate the ability to competently perform all applicable skills at the paramedic level. (Faculty Defined)
- 5. Exhibit attitudes and behaviors consistent with the ethics and professionalism expected of the EMT-paramedic. (Faculty Defined)

## **ENGL**

#### **ENGL 0020 – Writing Fundamentals (ACGM)**

- 1. Compose a variety of texts that demonstrate clear focus, the logical development of ideas, and the use of appropriate language that advances the writer's purpose.
- 2. Determine and use effective approaches and rhetorical strategies for given writing situations.
- 3. Generate ideas and gather information relevant to the topic and purpose, incorporating the ideas and words of other writers in student writing using established strategies.
- 4. Evaluate relevance and quality of ideas and information to formulate and develop a claim.
- 5. Develop and use effective revision strategies to strengthen the writer's ability to compose college-level writing assignments.
- 6. Edit writing to conform to the conventions of standard English.

## **ENGL 0323 – College Writing (ACGM)**

- 1. Compose a variety of texts that demonstrate clear focus, the logical development of ideas, and the use of appropriate language that advances the writer's purpose.
- 2. Determine and use effective approaches and rhetorical strategies for given writing situations.
- 3. Generate ideas and gather information relevant to the topic and purpose, incorporating the ideas and words of other writers in student writing using established strategies.
- 4. Evaluate relevance and quality of ideas and information to formulate and develop a claim.
- 5. Develop and use effective revision strategies to strengthen the writer's ability to compose college-level writing assignments.
- 6. Edit writing to conform to the conventions of standard English.

#### **ENGL 1301 – Composition I (ACGM)**

- 1. Demonstrate knowledge of individual and collaborative writing processes.
- 2. Develop ideas with appropriate support and attribution.
- 3. Write in a style appropriate to audience and purpose.
- 4. Read, reflect, and respond critically to a variety of texts.
- 5. Use Edited American English in academic essays.

## **ENGL 1302 – Composition II (ACGM)**

- 1. Demonstrate knowledge of individual and collaborative research processes.
- 2. Develop ideas and synthesize primary and secondary sources within focused academic arguments, including one or more research-based essays.
- 3. Analyze, interpret, and evaluate a variety of texts for the ethical and logical uses of evidence.
- 4. Write in a style that clearly communicates meaning, builds credibility, and inspires belief or action.
- 5. Apply the conventions of style manuals for specific academic disciplines (e.g., APA, CMS, MLA, etc.)

## **ENGL 2307 – Creative Writing (ACGM/Faculty Defined)**

- 1. Produce original works of creative writing in various literary genres, such as fiction, poetry, nonfiction, or drama. (Faculty Defined)
- 2. Employ both traditional and contemporary artistic conventions in the creation of original works. (Faculty Defined)
- 3. Participate collaboratively in all stages of the creative writing process, including prewriting, drafting, working with peers to apply strategies for revision, and preparing original works for public consumption. (Faculty Defined)
- 4. Demonstrate awareness of personal growth as creative writers by reflecting on choices and actions throughout the writing process. (Faculty Defined)

#### **ENGL 2311 – Technical & Business Writing (ACGM)**

- 1. Recognize, analyze, and accommodate diverse audiences.
- 2. Produce documents appropriate to audience, purpose, and genre.
- 3. Analyze the ethical responsibilities involved in technical communication.
- 4. Locate, evaluate, and incorporate pertinent information.
- 5. Develop verbal, visual, and multimedia materials as necessary, in individual and/or collaborative projects, as appropriate.
- 6. Edit for appropriate style, including attention to word choice, sentence structure, punctuation, and spelling.
- 7. Design and test documents for easy reading and navigation.

## **ENGL 2321 – British Literature (ACGM)**

- 1. Identify key ideas, representative authors and works, significant historical or cultural events, and characteristic perspectives or attitudes expressed in the literature of different periods or regions.
- 2. Analyze literary works as expressions of individual or communal values within the social, political, cultural, or religious contexts of different literary periods.
- 3. Demonstrate knowledge of the development of characteristic forms or styles of expression during different historical periods or in different regions.
- 4. Articulate the aesthetic principles that guide the scope and variety of works in the arts and humanities.
- 5. Write research-based critical papers about the assigned readings in clear and grammatically correct prose, using various critical approaches to literature.

#### **ENGL 2326 – American Literature (ACGM)**

- 1. Identify key ideas, representative authors and works, significant historical or cultural events, and characteristic perspectives or attitudes expressed in the literature of different periods or regions.
- 2. Analyze literary works as expressions of individual or communal values within the social, political, cultural, or religious contexts of different literary periods.
- 3. Demonstrate knowledge of the development of characteristic forms or styles of expression during different historical periods or in different regions.
- 4. Articulate the aesthetic principles that guide the scope and variety of works in the arts and humanities.
- 5. Write research-based critical papers about the assigned readings in clear and grammatically correct prose, using various critical approaches to literature.

#### **ENGL 2327 – American Literature I (ACGM)**

- 1. Identify key ideas, representative authors and works, significant historical or cultural events, and characteristic perspectives or attitudes expressed in the literature of different periods or regions.
- 2. Analyze literary works as expressions of individual or communal values within the social, political, cultural, or religious contexts of different literary periods.
- 3. Demonstrate knowledge of the development of characteristic forms or styles of expression during different historical periods or in different regions.
- 4. Articulate the aesthetic principles that guide the scope and variety of works in the arts and humanities.
- 5. Write research-based critical papers about the assigned readings in clear and grammatically correct prose, using various critical approaches to literature.

#### **ENGL 2328 – American Literature II (ACGM)**

- 1. Identify key ideas, representative authors and works, significant historical or cultural events, and characteristic perspectives or attitudes expressed in the literature of different periods or regions.
- 2. Analyze literary works as expressions of individual or communal values within the social, political, cultural, or religious contexts of different literary periods.
- 3. Demonstrate knowledge of the development of characteristic forms or styles of expression during different historical periods or in different regions.
- 4. Articulate the aesthetic principles that guide the scope and variety of works in the arts and humanities.
- 5. Write research-based critical papers about the assigned readings in clear and grammatically correct prose, using various critical approaches to literature.

#### **ENGL 2331 – World Literature (ACGM)**

- 1. Identify key ideas, representative authors and works, significant historical or cultural events, and characteristic perspectives or attitudes expressed in the literature of different periods or regions.
- 2. Analyze literary works as expressions of individual or communal values within the social, political, cultural, or religious contexts of different literary periods.
- 3. Demonstrate knowledge of the development of characteristic forms or styles of expression during different historical periods or in different regions.
- 4. Articulate the aesthetic principles that guide the scope and variety of works in the arts and humanities.
- 5. Write research-based critical papers about the assigned readings in clear and grammatically correct prose, using various critical approaches to literature.

#### **ENGL 2332 – World Literature I (ACGM)**

- 1. Identify key ideas, representative authors and works, significant historical or cultural events, and characteristic perspectives or attitudes expressed in the literature of different periods or regions.
- 2. Analyze literary works as expressions of individual or communal values within the social, political, cultural, or religious contexts of different literary periods.
- 3. Demonstrate knowledge of the development of characteristic forms or styles of expression during different historical periods or in different regions.
- 4. Articulate the aesthetic principles that guide the scope and variety of works in the arts and humanities.
- 5. Write research-based critical papers about the assigned readings in clear and grammatically correct prose, using various critical approaches to literature.

#### **ENGL 2333 – World Literature II (ACGM)**

- 1. Identify key ideas, representative authors and works, significant historical or cultural events, and characteristic perspectives or attitudes expressed in the literature of different periods or regions.
- 2. Analyze literary works as expressions of individual or communal values within the social, political, cultural, or religious contexts of different literary periods.
- 3. Demonstrate knowledge of the development of characteristic forms or styles of expression during different historical periods or in different regions.
- 4. Articulate the aesthetic principles that guide the scope and variety of works in the arts and humanities.
- 5. Write research-based critical papers about the assigned readings in clear and grammatically correct prose, using various critical approaches to literature.

#### **ENGL 2341 – Forms of Literature (ACGM/Faculty Defined)**

- 1. Identify key ideas, representative authors and works, significant historical or cultural events, and characteristic perspectives or attitudes expressed in the literature of different periods or regions.
- 2. Analyze literary works as expressions of individual or communal values within the social, political, cultural, or religious contexts of different literary periods.
- 3. Demonstrate knowledge of the development of characteristic forms or styles of expression during different historical periods or in different regions.
- 4. Articulate the aesthetic principles that guide the scope and variety of works in the arts and humanities.
- 5. Write research-based critical papers about the assigned readings in clear and grammatically correct prose, using various critical approaches to literature.

#### **ENGL 2351 – Mexican American Literature (ACGM)**

- 1. Identify key ideas, representative authors and works, significant historical or cultural events, and characteristic perspectives or attitudes expressed in the literature of different periods or regions.
- 2. Analyze literary works as expressions of individual or communal values within the social, political, cultural, or religious contexts of different literary periods.
- 3. Demonstrate knowledge of the development of characteristic forms or styles of expression during different historical periods or in different regions.
- 4. Articulate the aesthetic principles that guide the scope and variety of works in the arts and humanities.
- 5. Write research-based critical papers about the assigned readings in clear and grammatically correct prose, using various critical approaches to literature.

## **ENGR**

## **ENGR 1201 – Introduction to Engineering (ACGM)**

- 1. Describe the engineering profession and engineering ethics including professional practice and licensure.
- 2. Use technical communication skills to explain the analysis and results of introductory laboratory exercises in engineering and computer science.
- 3. Explain the engineering analysis and design process.
- 4. Analyze data collected during laboratory exercises designed to expose students to the different engineering disciplines.
- 5. Describe the impact engineering has had on the modern world.
- 6. As part of a team, design a simple engineering device, write a design report, and present the design.
- 7. Demonstrate computer literacy.

## **ESOL**

## **ESOL 0022 – ESOL College Prep (ACGM)**

- 1. Compose a variety of texts that demonstrate clear focus, the logical development of ideas, and the use of appropriate language that advances the writer's purpose.
- 2. Determine and use effective approaches and rhetorical strategies for given writing situations.
- 3. Generate ideas and gather information relevant to the topic and purpose, incorporating the ideas and words of other writers in student writing using established strategies.
- 4. Evaluate relevance and quality of ideas and information to formulate and develop a claim.
- 5. Edit writing to conform to the conventions of standard English.

#### ESOL 0023 – Essential English Grammar and Writing (ACGM)

- 1. Locate explicit textual information, draw complex inferences, and describe, analyze, and evaluate the information within and across multiple texts of varying lengths.
- 2. Comprehend and use vocabulary effectively in oral communication, reading, and writing.
- 3. Identify and analyze the audience, purpose, and message across a variety of texts.
- 4. Describe and apply insights gained from reading and writing a variety of texts.
- 5. Compose a variety of texts that demonstrate reading comprehension, clear focus, logical development of ideas, and use of appropriate language that advance the writer's purpose.
- 6. Determine and use effective approaches and rhetorical strategies for given reading and writing situations.
- 7. Generate ideas and gather information relevant to the topic and purpose, incorporating the ideas and words of other writers in student writing using established strategies.
- 8. Evaluate relevance and quality of ideas and information in recognizing, formulating, and developing a claim.
- 9. Develop and use effective reading and revision strategies to strengthen the writer's ability to compose college-level writing assignments.
- 10. Recognize and apply the conventions of standard English in reading and writing.

# ESOL 0337 - High-Intermediate Grammar (ACGM/Faculty Defined)

- 1. Use verb tenses and voice with proficiency.
- 2. Use appropriate word choice, word form, and word order with proficiency.

## ESOL 0338 - High-Intermediate Writing (ACGM/Faculty Defined)

- 1. Demonstrate ability to use the writing process by generating ideas, drafting, revising, and editing. ESOL High-Intermediate Writing.
- 2. Write coherent and cohesive sentences in a variety of common patterns. ESOL High Intermediate Writing.
- 3. Recognize and use proper English mechanics. ESOL High-Intermediate Writing.

#### ESOL 0339 - High-Intermediate Conversation (ACGM/Faculty Defined)

- 1. Demonstrate understanding of authentic oral texts (e.g., lectures, news cast s, pod casts) that contain sophisticated vocabulary and structures by successfully completing comprehension tasks, such as answering questions, note-taking, outlining, paraphrasing, summarizing, or evaluating the content, etc. [comprehension tasks such as identifying main, supporting ideas, and implied meaning are subsumed.]
- 2. Speak with fluency, using complex and accurate language, clear pronunciation and prosodic elements (e.g., intonation, rhythm, word and sentence stress).
- 3. Participate in discussions in formal and informal settings using active listening skills and making appropriate and extended comments.
- 4. Assess own language production and use appropriate self-monitoring strategies such as rephrasing, re-directing, asking for clarification, and circumlocution.

## ESOL 0340 - Advanced Grammar (ACGM/Faculty Defined)

- 1. Use simple, compound, and complex sentences structures including phrases and clauses with proficiency.
- 2. Use parts of speech (nouns, pronouns, verbs, adjectives, adverbs, prepositions, interjections, conjunctions) and determiners (quantifiers, articles, demonstratives, possessives) appropriately and with proficiency.

## ESOL 0341 - Advanced Writing (ACGM/Faculty Defined)

- 1. Write a clear, well-organized, multi-paragraph essay using a logical sequence in a prescribed rhetorical mode. ESOL Advanced Writing.
- 2. Demonstrate functional vocabulary knowledge in a variety of contexts at a level appropriate for college level courses. ESOL Advanced Writing.
- 3. Write coherent and cohesive sentences in a variety of common patterns. ESOL Advanced Writing.
- 4. Demonstrate proficiency in basic skills related to research-based academic writing, such as paraphrasing, summarizing, quoting, and citing sources according to prescribed style guidelines. ESOL Advanced Writing.

#### ESOL 0342 - Advanced Conversation (ACGM/Faculty Defined)

- 1. Plan and deliver formal oral presentations using appropriate vocabulary and syntax, recognizable organization, clear pronunciation, non-verbal cues, and appropriate volume and intonation, and respond appropriately to questions.
- 2. Demonstrate the ability to use a range of formal and informal language appropriate to context.
- 3. Analyze and evaluate oral expression by listening critically for elements that reflect an awareness of situation, audience, purpose, and diverse points of view.
- 4. Demonstrate knowledge of a wide range of cultural conventions and references in oral and nonverbal communication.

#### ESOL 0343 - Preparation for College (ACGM/Faculty Defined)

- 1. Respond critically, orally and in writing, to various kinds of college level texts.
- 2. Understand and use academic vocabulary and linguistically complex structures across a variety of disciplines and genres.
- 3. Demonstrate knowledge of cultural and historical references to American society in written materials.

#### ESOL 0346 - High-Intermediate Reading (ACGM/Faculty Defined)

- 1. Comprehend and summarize texts, including the identification of main idea, supporting details, audience, and purpose of text.
- 2. Interpret and critically analyze author's bias, purpose, and perspective in academic materials.
- 3. Make inferences and draw conclusions from a variety of college level texts.
- 4. Respond critically, orally and in writing, to various kinds of college level texts.
- 5. Understand and use academic vocabulary and linguistically complex structures across a variety of disciplines and genres.
- 6. Demonstrate knowledge of cultural and historical references to American society in written materials.

## **GEOG**

## **GEOG 1303 – World Regional Geography (ACGM)**

- 1. Define and explain the geographic concept of "region."
- 2. Locate significant geographic features of regions of the world and describe their cultural, economic, political, and physical characteristics.
- 3. Demonstrate knowledge of each region's role in a globalizing world.
- 4. Apply geographic concepts to understanding current events, conflicts, and issues in a regional context.

## **GOVT**

# **GOVT 2304 – Introduction to Political Science (ACGM)**

- 1. Define and apply political terms and concepts.
- 2. Define political science and identify the subfields.
- 3. Compare and contrast different political systems and institutions.
- 4. Apply the methods used to study politics.
- 5. Critically interpret and analyze contemporary political issues and problems.

# **GOVT 2305 – Federal Government (ACGM)**

- 1. Explain the origin and development of constitutional democracy in the United States.
- 2. Demonstrate knowledge of the federal system.
- 3. Describe separation of powers and checks and balances in both theory and practice.
- 4. Demonstrate knowledge of the legislative, executive, and judicial branches of the federal government.
- 5. Evaluate the role of public opinion, interest groups, and political parties in the political system.
- 6. Analyze the election process.

- 7. Describe the rights and responsibilities of citizens.
- 8. Analyze issues and policies in U.S. politics.

## **GOVT 2306 – Texas Government (ACGM)**

- 1. Explain the origin and development of the Texas constitution.
- 2. Describe state and local political systems and their relationship with the federal government.
- 3. Describe separation of powers and checks and balances in both theory and practice in Texas.
- 4. Demonstrate knowledge of the legislative, executive, and judicial branches of Texas government.
- 5. Evaluate the role of public opinion, interest groups, and political parties in Texas.
- 6. Analyze the state and local election process.
- 7. Identify the rights and responsibilities of citizens.
- 8. Analyze issues, policies and political culture of Texas.

## **HART**

## **HART 1300 – HVAC Duct Fabrication (WECM)**

- 1. Identify common tools and materials used in the fabrication and installation of duct work.
- 2. Demonstrate layout and fabrication of duct work.

#### HART 1301 - Basic Electricity for HVAC (WECM)

- 1. Demonstrate knowledge of basic principles of electricity, electrical current, circuitry, and air conditioning devices.
- 2. Apply Ohm's law to electrical calculations.
- 3. Perform electrical continuity, voltage, and current tests with appropriate meters.
- 4. Demonstrate electrical safety.

# **HART 1303 – Air Conditioning Control Principles (WECM)**

- 1. Test, repair, and/or replace HVAC-related electrical and control components, wiring and equipment.
- 2. Read, draw, and interpret high and low voltage control circuits.

#### **HART 1307 – Refrigeration Principles (WECM)**

- 1. Identify refrigeration components.
- 2. Explain operation of the basic refrigeration cycle and heat transfer.
- 3. Demonstrate proper application and/or use of tools, test equipment, and safety procedures.

# HART 1310 - HVAC Shop Practices and Tools (WECM)

- 1. Demonstrate use of hand tools, power tools, and instruments.
- 2. Construct flares, swages, and bends using tubing tools.
- 3. Use a torch for brazing and soldering.
- 4. Identify industry safety, and environmental regulations.
- 5. Perform safety procedures.

#### **HART 1341 – Residential Air Conditioning (WECM)**

- 1. Identify various types of system applications.
- 2. Perform charging, recovery, and evacuation procedures of an installed system.
- 3. Perform component and part diagnostics and replacement.
- 4. Perform system maintenance.

## HART 1345 - Gas and Electric Heating (WECM)

- 1. Identify different types of gas furnaces.
- 2. Identify and describe component operation of gas furnaces.
- 3. Service and troubleshoot gas furnaces.
- 4. Perform safety inspections on gas and electric heating systems.
- 5. Identify unsafe operation of gas furnaces.
- 6. Identify and discuss component operation of electric heating systems.
- 7. Service and troubleshoot electric heating systems.

# **HART 1356 – EPA Recovery Certification Preparation (WECM)**

- 1. Define refrigerant recovery, recycle, and reclaim terms.
- 2. Explain refrigerant recovery, recycle, and reclaim procedures.
- 3. Analyze refrigerant recovery, recycle, and reclaim operations.
- 4. Identify Type I, Type II, and Type III appliances.
- 5. Examine and utilize Section 608 of the Clean Air Act of 1990 Refrigerant, Recovery, Recycle, and Reclaim.

## HART 1391 – Special Topics in Heating, Air Conditioning, and Refrigeration (WECM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

# HART 1394 – Special Topics in Heating, Air Conditioning, and Refrigeration Mechanic and Repair (WECM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

## HART 2301 – Air Conditioning and Refrigeration Codes (WECM)

 Demonstrate the ability to locate and identify information in code books and reference materials applicable to installation procedures governed by Texas Department of Licensing and Regulation (TDLR).

#### HART 2331 – Advanced Electricity for HVAC (WECM)

- 1. Apply the principles and theory of power distribution.
- 2. Describe the theory, operation, and protection of electric motors.
- 3. Identify the application of solid-state devices.
- 4. Troubleshoot electric motors and controls.

#### **HART 2336 – Air Conditioning Troubleshooting (WECM)**

- 1. Test and diagnose components, systems, and accessories.
- 2. Complete applicable documentation.

## HART 2338 – Air Conditioning Installation and Startup (WECM)

- 1. Install air conditioning equipment and evaluate system performance.
- 2. Demonstrate disposal and recycling of materials, including refrigerants and mercury.
- 3. Demonstrate bending and cutting technique for system piping.
- 4. Install equipment and ductwork according to industry standards to maximize efficiency.

## **HART 2341 – Commercial Air Conditioning (WECM)**

- 1. Apply and describe the sequence of operation for commercial air conditioning systems and their accessories.
- 2. Identify components relative to commercial air conditioning.
- 3. Explain energy efficient and renewable energy technologies.

# **HART 2342 – Commercial Refrigeration (WECM)**

- 1. Explain and apply medium and low temperature systems operation.
- 2. Explain and apply ice machine and packaged refrigeration system operation.
- 3. Explain application and conversion procedures of refrigerants related to specific systems.

# HART 2345 – Residential Air Conditioning Systems Design (WECM)

- 1. Calculate heat loss and heat gain.
- 2. Size heating and cooling equipment to the structure.
- 3. Read and interpret detailed HVAC design plans.
- 4. Perform a load calculation using industry standards.
- 5. Design a complete air distribution system including ventilatins requirements and indoor air quality.

#### HART 2349 - Heat Pumps (WECM)

- 1. Explain a reverse cycle system.
- 2. List the mechanical and electrical components for the heat pump operation.
- 3. Explain the operation of heat pump modes including cooling, heating, defrost, emergency heat, and auxiliary heat mode.
- 4. Identify and explain different methods of accomplishing defrost.
- 5. Charge a system correctly in the heating and cooling mode.
- 6. Troubleshoot electrical and mechanical components.
- 7. Perform tests for adequate air flow.
- 8. Determine balance point and co-efficiency of performance (C.O.P.).
- 9. Define attributes of geothermal heat pump systems.

# HART 2388 – Internship – Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Students will demonstrate theory, concepts, and skills involving materials, tools, and equipment

- installation. (Faculty Defined)
- 4. Students will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills. (Faculty Defined)
- 5. Students will demonstrate written and verbal communication skills using the terminology of the occupation and the business/industry. (Faculty Defined)

# HIST

#### HIST 1301 – United States History I (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary sources.
- 3. Analyze the effects of historical, social, political, economic, cultural, and global forces on this period of United States history.

#### HIST 1302 – United States History II (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary sources.
- 3. Analyze the effects of historical, social, political, economic, cultural, and global forces on this period of United States history.

## HIST 2301 – Texas History (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary sources.
- 3. Analyze the effects of historical, social, political, economic, cultural, and global forces on Texas history.

#### HIST 2311 – Western Civilization I (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary sources.
- 3. Analyze the effects of historical, social, political, economic, and cultural forces on this period of western history.

#### HIST 2312 – Western Civilization II (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary sources.
- 3. Analyze the effects of historical, social, political, economic, and cultural forces on this period of western history.

## HIST 2321 – World Civilizations I (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary sources.
- 3. Analyze the effects of historical, social, political, economic, cultural, and global forces on this period of world history.

## HIST 2322 - World Civilizations II (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary sources.
- 3. Analyze the effects of historical, social, political, economic, cultural, and global forces on this

period of world history.

#### HIST 2327 – Mexican-American History I (to the United States-Mexico War Era) (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary sources.
- 3. Describe the transformation of indigenous societies from 1400-1700.
- 4. Explain the causes and effects of European conquest and colonization on the Americas.
- 5. Evaluate the relative impact of mestizaje, slavery, global economics, and frontier settlement on the creation of Mexican identity.
- 6. Connect independence movements, imperial conflicts, class formation, and regional resistance to the making on independent Mexico.
- 7. Discuss the transformation of communities in the borderlands as a result of Manifest Destiny and the United States-Mexico War
- 8. Compare and contrast the borderland regions of California, New Mexico and Texas from 1800-1850.

## HIST 2328 – Mexican-American History II (from the United States-Mexico War Era) (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary evidence.
- 3. Differentiate between the promises and realities of the Treaty of Guadalupe Hidalgo.
- 4. Describe how race, gender, and class shaped material conditions and inter-ethnic dynamics for Mexican Americans in the United States.
- 5. Discuss the transnational political and economic ties between the United States and Mexico.
- 6. Assess the impact of the 1910 Mexican Revolution on the United States and Mexico.
- 7. Articulate the place of the Mexican American struggle for civil rights within the context of the broader Civil Rights Movement.
- 8. Evaluate periods of significant change in Mexican migration patterns in the United States.
- 9. Explain the history of self-identification in Mexican American communities in the Unites States.

## HIST 2381 - African American History I (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary sources.
- 3. Analyze the effects of historical, social, political, economic, cultural, and global forces on this period of African American history.

#### HIST 2382 - African American History II (ACGM)

- 1. Create an argument through the use of historical evidence.
- 2. Analyze and interpret primary and secondary sources.
- 3. Analyze the effects of historical, social, political, economic, cultural, and global forces on this period of African American history.

## HITT

## HITT 1301 – Health Data Content and Structure (WECM)

1. Analyze health record content.

- 2. Describe health information management department function and purpose.
- 3. Differentiate the various types of health care facilities and their records.
- 4. Identify the various licensing and regulatory agencies in the healthcare industry.

## HITT 1305 – Medical Terminology I (WECM)

- 1. Identify, pronounce, and spell medical terms.
- 2. Use terms in context.
- 3. Utilize prefixes, suffixes, root words, and plurals to construct medical terms.
- 4. Analyze medical terms.
- 5. Translate abbreviations.
- 6. Interpret symbols.

#### HITT 1353 - Legal and Ethical Aspects of Health Information (WECM)

- Apply local, state, and federal standards and regulations for the control and use of health information.
- 2. Demonstrate appropriate health information disclosure practices.
- 3. Identify and discuss ethical issues in health care.

## **HPRS**

# HPRS 1101 - Introduction to Health Professions (WECM)

- 1. Identify the roles of various health care professionals.
- 2. Outline state and national credentialing and licensing requirements.
- 3. Describe legal and ethical issues affecting the practice of health care professionals.
- 4. Give examples of professionalism.
- 5. Define the rights and responsibilities of health care professionals.

#### **HPRS 1106 - Essentials of Medical Terminology (WECM)**

- 1. Define, pronounce, and spell medical terms with the use of medical references as resource tools.
- 2. Utilize terms in context.
- 3. Analyze medical terms.
- 4. Examine word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols.

#### HPRS 1204 - Basic Health Profession Skills (WECM)

- 1. Comply with national, state, and local regulatory agencies.
- 2. Perform client monitoring skills.
- 3. Document health care.

#### **HPRS 2302 – Medical Terminology (WECM)**

- 1. Define, pronounce, and spell medical terms with a use of medical references as resource tools.
- 2. Demonstrate effective communication of medical terms in all levels of health care.
- 3. Utilize medical terms in context of Allied Healthcare fields.
- 4. Analyze word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations, and symbols.
- 5. Apply critical thinking skills when communicating medical terminology of human anatomy and physiology, disease disorders, and procedures.

## **HRPO**

#### HRPO 1311 – Human Relations (WECM)

- 1. Evaluate human relations including diversity, attitudes, self-esteem, and interpersonal skills to promote career success.
- 2. Identify the causes and effects of stress in the workplace.
- 3. Identify individual and group communication and decision-making skills.
- 4. Analyze how theories of motivation and human behavior impact strategies of change management.

#### HRPO 2301 – Human Resources Management (WECM)

- 1. Describe and explain the development of human resources management.
- 2. Evaluate current methods of job analysis, recruitment, selection, training/development, performance management, promotion, and separation.
- 3. Describe management's ethical, social, and legal responsibilities.
- 4. Explain methods of compensation and benefits planning.
- 5. Describe the role of strategic human resource planning.

## **HUMA**

## **HUMA 1305 - Introduction to Mexican American Studies (ACGM)**

- 1. Analyze the developmental history, culture, and struggles for equality of Mexican Americans/Chicanos/as.
- 2. Articulate an informed personal response and critically analyze works by Mexican Americans/Chicanos/as in the arts and humanities.
- 3. Describe the impact of discrimination on the everyday life of Mexican Americans/Chicanos/as in the context of social, political, and economic circumstances.
- 4. Analyze minority group interactions in the United States focusing on immigration and migration patterns, assimilation processes, and adjustments to American life.
- 5. Formulate an understanding of the shifting definitions of Mexican American cultural identities.

#### **HUMA 1311 - Mexican American Fine Arts Appreciation (ACGM)**

- 1. Employ formal elements and principles to critically analyze various works of the visual and performing arts.
- 2. Articulate the creative process of artistic works as expressions of Mexican American/Chicano/a experiences and cultural values.
- 3. Formulate an understanding of how Mexican American/Chicano/a arts reflect shifting cultural identities.
- 4. Describe the relationship of Mexican American/Chicano/a arts to everyday life.

## **HYDR**

## **HYDR 1345 - Hydraulics and Pneumatics (WECM)**

- 1. Demonstrate the operation of basic hydraulic and pneumatic systems including associated instruments.
- 2. Interpret schematics.
- 3. Troubleshoot systems.

4. Design a schematic drawing of a working system.

## **IMED**

## IMED 1416 – Web Design I (WECM/Faculty Defined)

- 1. Identify how the Internet functions with specific attention to the file transfer.
- 2. Apply design techniques in the creation and optimization of graphics and other embedded elements.
- 3. Demonstrate the use World Wide Web Consortium (W3C) formatting and layout standards.
- 4. Design, create, test, and maintain a web site.

#### IMED 2409 - Internet Commerce (WECM)

- 1. Perform audience analysis.
- 2. Identify marketing objectives.
- 3. Evaluate strategies for secure data transfer.
- 4. Design a web project to interact with a database.

## IMED 2415 – Web Design II (WECM/Faculty Defined)

- 1. Demonstrate the use of World Wide Web Consortium (W3C) standards for style, accessibility, layout, and formatting.
- 2. Develop web pages with dynamic customization capabilities.
- 3. Develop web sites designed for usability and cultural diversity.
- 4. Use design strategies for search engine optimization.

#### INFW

## **INEW 2434 – Advanced Web Programming (WECM)**

- 1. Design, code, and implement a dynamic web application.
- 2. Develop connectivity between data store and website.

# **INMT**

# INMT 1305 - Introduction to Industrial Maintenance (WECM)

- 1. Identify various types of fasteners common to industrial maintenance.
- 2. Utilize various hand and power tools.
- 3. Utilize precision measuring instruments.
- 4. Demonstrate proper lock-out/tag-out procedures.

#### INMT 2301 - Machinery Installation (WECM)

- 1. Perform field layouts for locating machinery.
- 2. Install machinery which includes leveling and securing.
- 3. Explain the applications of the various types of shaft couplings.
- 4. Align shafts of rotating equipment using various methods.

#### INMT 2345 - Industrial Troubleshooting (WECM)

1. Demonstrate various troubleshooting techniques.

2. Troubleshoot hydraulic, pneumatic, electrical mechanical drive systems using schematics and diagrams.

## **INRW**

#### INRW 0022 - College Integrated Reading and Writing Prep (ACGM)

- 1. Locate explicit textual information, draw complex inferences, and describe, analyze, and evaluate the information within and across multiple texts of varying length.
- 2. Comprehend and use vocabulary effectively in oral communication, reading, and writing.
- 3. Identify and analyze the audience, purpose, and message across a variety of texts.
- 4. Describe and apply insights gained from reading and writing a variety of texts.
- 5. Compose a variety of texts that demonstrate reading comprehension, clear focus, logical development of ideas, and use of appropriate language that advance the writer's purpose.
- 6. Determine and use effective approaches and rhetorical strategies for given reading and writing situations.
- 7. Generate ideas and gather information relevant to the topic and purpose, incorporating the ideas and words of other writers in student writing using established strategies.
- 8. Evaluate relevance and quality of ideas and information in recognizing, formulating, and developing a claim.
- 9. Develop and use effective reading and revision strategies to strengthen the writer's ability to compose college-level writing assignments.
- 10. Recognize and apply the conventions of standard English in reading and writing

## INRW 0023 – Essential Reading and Writing Strategies (ACGM)

- 1. Locate explicit textual information, draw complex inferences, and describe, analyze, and evaluate the information within and across multiple texts of varying lengths.
- 2. Comprehend and use vocabulary effectively in oral communication, reading, and writing.
- 3. Identify and analyze the audience, purpose, and message across a variety of texts.
- 4. Describe and apply insights gained from reading and writing a variety of texts.
- 5. Compose a variety of texts that demonstrate reading comprehension, clear focus, logical development of ideas, and use of appropriate language that advance the writer's purpose.
- 6. Determine and use effective approaches and rhetorical strategies for given reading and writing situations.
- 7. Generate ideas and gather information relevant to the topic and purpose, incorporating the ideas and words of other writers in student writing using established strategies.
- 8. Evaluate relevance and quality of ideas and information in recognizing, formulating, and developing a claim.
- 9. Develop and use effective reading and revision strategies to strengthen the writer's ability to compose college-level writing assignments.
- 10. Recognize and apply the conventions of standard English in reading and writing.

#### INRW 0421 – Introduction to Integrated Reading and Writing (ACGM)

- 1. Locate explicit textual information, draw complex inferences, and describe, analyze, and evaluate the information within and across multiple texts of varying lengths.
- 2. Comprehend and use vocabulary effectively in oral communication, reading, and writing.
- 3. Identify and analyze the audience, purpose, and message across a variety of texts.

- 4. Describe and apply insights gained from reading and writing a variety of texts.
- 5. Compose a variety of texts that demonstrate reading comprehension, clear focus, logical development of ideas, and use of appropriate language that advance the writer's purpose.
- 6. Determine and use effective approaches and rhetorical strategies for given reading and writing situations.
- 7. Generate ideas and gather information relevant to the topic and purpose, incorporating the ideas and words of other writers in student writing using established strategies.
- 8. Evaluate relevance and quality of ideas and information in recognizing, formulating, and developing a claim.
- 9. Develop and use effective reading and revision strategies to strengthen the writer's ability to compose college-level writing assignments.
- 10. Recognize and apply the conventions of standard English in reading and writing.

#### **INRW 0422 – Integrated Reading and Writing (ACGM)**

- 1. Locate explicit textual information, draw complex inferences, and describe, analyze, and evaluate the information within and across multiple texts of varying lengths.
- 2. Comprehend and use vocabulary effectively in oral communication, reading, and writing.
- 3. Identify and analyze the audience, purpose, and message across a variety of texts.
- 4. Describe and apply insights gained from reading and writing a variety of texts.
- 5. Compose a variety of texts that demonstrate reading comprehension, clear focus, logical development of ideas, and use of appropriate language that advance the writer's purpose.
- 6. Determine and use effective approaches and rhetorical strategies for given reading and writing situations.
- 7. Generate ideas and gather information relevant to the topic and purpose, incorporating the ideas and words of other writers in student writing using established strategies.
- 8. Evaluate relevance and quality of ideas and information in recognizing, formulating, and developing a claim.
- 9. Develop and use effective reading and revision strategies to strengthen the writer's ability to compose college-level writing assignments.
- 10. Recognize and apply the conventions of standard English in reading and writing.

## INTC

#### INTC 1341 - Principles of Automatic Control (WECM)

- 1. Describe the impact of process variables on automatic control.
- 2. Draw loop, block and wiring diagrams.
- 3. Configure associated equipment.

# **ITDF**

#### ITDF 2425 - Digital Forensics Tools (WECM)

- 1. Demonstrate data collection from digital devices using multiple forensic-based tools.
- 2. Demonstrate methods of detecting digital information concealed or protected by steganography, encryption, and other methods.
- 3. Utilize "hashing" and other digital means to identify files and verify the accuracy of digital copies of

original evidence.

4. Present a report of forensic analysis and findings.

## **ITNW**

## ITNW 2405 - Network Administration (WECM/Faculty Defined)

- 1. Describe the components of a local area network and their relationship.
- 2. Create and administer user accounts and groups.
- 3. Plan and set up network file systems.
- 4. Create effective file system security.
- 5. Implement and administer network printing.

# ITNW 2412 - Routers (WECM)

- 1. Install, configure, and manage switches, routers, and subnets.
- 2. Create and apply access control lists in TCP/IP and multi-protocol internetworks.
- 3. Configure variable-length subnet masking and intermediate routing protocols.

#### ITNW 2413 - Networking Hardware (WECM)

- 1. Build network cables.
- 2. Identify and implement connectivity devices.
- 3. Select appropriate network power management devices.
- 4. Determine the necessary computer hardware requirements for workstations and servers.

# ITNW 2459 – Web Server Support and Maintenance (WECM)

- 1. Administer web server systems.
- 2. Select hardware platforms.
- 3. Select, install, and configure network operating systems.
- 4. Demonstrate web server maintenance.

## **ITSC**

#### ITSC 1325 – Personal Computer Hardware (WECM)

- 1. Assemble/setup and upgrade personal computer systems.
- 2. Diagnose and isolate faulty components.
- 3. Optimize system performance.
- 4. Install/connect peripherals.

# ITSC 1415 – IT Project Management (WECM)

- 1. Use project management tools to plan and manage a project.
- 2. Organize and evaluate project phases.
- 3. Produce documents applicable to the project.
- 4. Determine project tasks.
- 5. Demonstrate teamwork.

# ITSC 1416 - Linux Installation and Configuration (WECM)

1. Install, administer, and manage a Linux system.

- 2. Demonstrate proficiency with Linux utilities, commands, and applications.
- 3. Identify and resolve security-based issues.
- 4. Integrate a Linux system into an existing network.

## **ITSE**

## ITSE 1350 - System Analysis and Design (WECM)

- 1. Use system design tools.
- 2. Identify phases of the system design life cycle.
- 3. Develop a prototype.
- 4. Compare and contrast project management tools.
- 5. Develop documentation for the system life cycle.

## ITSE 1411 - Beginning Web Programming (WECM)

- 1. Demonstrate the use of markup and scripting languages.
- 2. Create interactive web pages.

## **ITSE 2310 - iOS Application Programming**

- 1. Complete the procedures to become a registered Apple iOS developer.
- 2. Design interfaces for iOS applications.
- 3. Produce concept documentation.
- 4. Create iOS applications in native Software Development Kit (SDK).
- 5. Deploy applications for various iOS devices.

## ITSE 2409 – Database Programming (WECM)

- 1. Develop database applications using a structured query language.
- 2. Create queries and reports from database tables.
- 3. Implement data integrity.
- 4. Optimize query performance.
- 5. Create and maintain indexes.
- 6. Create appropriate documentation.

## **ITSW**

#### ITSW 1307 – Introduction to Database (WECM)

- 1. Identify and differentiate the application of relational and non-relational databases
- 2. Identify database terminology and concepts.
- 3. Plan, define, and design a database.
- 4. Design and generate tables, forms, and reports.
- 5. Design and process queries.

#### ITSW 1310 – Introduction to Presentation Graphic Software (WECM)

- 1. Identify presentation media terminology and concepts.
- 2. Create presentations using text, visual and/or sound elements.
- 3. Use effective compositions and style.
- 4. Prepare presentations for distribution on computers or other media.

5. Modify sequence and slide master.

#### ITSW 2334 – Advanced Spreadsheets (WECM)

- Create and design macros;
- 2. Use data analysis features.
- 3. Develop solutions using linked worksheets.

# ITSW 2364 - Practicum (or Field Experience) - Data Processing and Data Processing Technology/Technician (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

# ITSW 2365 – Practicum (or Field Experience) – Data Processing and Data Processing Technology/Technician. (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills.
- 3. Demonstrate appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

# **ITSY**

#### ITSY 1300 - Fundamentals of Information Security (WECM)

- 1. Outline best practices for the information security goals of confidentiality, integrity and availability.
- 2. Explain ethical practices.
- 3. Define vocabulary/terminology related to information security.

## ITSY 1442 - Information Technology Security (WECM)

- 1. Apply National Institute of Standards and Technology (NIST) guidelines and other best practices.
- 2. Develop backup/recovery procedures to provide for data security.
- 3. Use desktop /device operating system features to implement security.
- 4. Identify computer and network threats and vulnerabilities and methods to prevent their effects.
- 5. Use tools to enhance network security.
- 6. Use encryption techniques to protect network local and distributed systems data.

## ITSY 2300 - Operating System Security (WECM)

- 1. Identify network security risks, security design, and monitoring solutions.
- 2. Identify sources of computer threats, evaluate potential practices, tools, and technologies to protect individual network systems.
- 3. Establish and sustain an operating system security plan utilizing systems and application security tools.

4. Implement procedures to secure and monitor audit logs and set system administrator alerts.

#### ITSY 2317 - Wireless Security Development (WECM)

- 1. Develop information security policies, standards, and guidelines.
- 2. Configure DMZ, antivirus, VPN, wireless communications, and remote access.
- 3. Design, install, configure, monitor, maintain, and troubleshoot wireless solutions.
- 4. Identify Best Practices and appropriate defenses including firewalls, encryption, physical security, intrusion detection, and biometrics.
- 5. Demonstrate proper implementation and evaluation of wireless security using authentication and encryption protocols.

# **LGLA**

#### LGLA 1301 – Legal Research and Writing (WECM)

- 1. Locate primary and secondary legal authority.
- 2. Implement research strategies using available research tools.
- 3. Draft legal documents.
- 4. Analyze the ethical considerations of the paralegal relating to legal research and writing.

## LGLA 1307 – Introduction to Law and the Legal Professions (WECM)

- 1. Use legal terminology.
- 2. Explain fundamental legal concepts categorizing substantive areas of law and the federal and state judicial systems.
- 3. Identify the ethical obligations of the legal professional in various practice areas with particular emphasis on the paralegal's role in the legal profession.

# **LGLA 1345 – Civil Litigation (WECM)**

- 1. Use terminology relating to civil litigation.
- 2. Analyze sources relating to civil litigation and applicable court rules.
- 3. Draft documents used in civil litigation.
- 4. Analyze the ethical considerations of the paralegal in relating to civil litigation.

## LGLA 1351 - Contracts (WECM)

- 1. Use terminology relating to contract law.
- 2. Analyze sources relating to contract law.
- 3. Draft documents used in contract law
- 4. Analyze the ethical considerations of the paralegal relating to contract law.

#### LGLA 1353 – Wills, Trusts and Probate Administration (WECM)

- 1. Use terminology relating to wills, trusts, and probate administration.
- 2. Analyze sources relating to wills, trusts, and probate administration.
- 3. Draft documents commonly used in wills, trusts, and probate administration.
- 4. Analyze the ethical considerations of the paralegal's role in wills, trusts, and probate administration.

## LGLA 1355 - Family Law (WECM)

1. Use terminology relating to family law.

- 2. Analyze sources relating to family law.
- 3. Draft documents used in family law.
- 4. Analyze the ethical considerations of the paralegal in family law.

# LGLA 1391 - Special Topics in Legal Assistant/Paralegal (WECM/Faculty Defined)

 Learning outcomes/objectives are determined by local occupational need and business and industry trends.

## LGLA 2303 – Torts and Personal Injury Law (WECM)

- 1. Use terminology relating to tort and personal injury law.
- 2. Analyze sources relating to tort and personal injury law.
- 3. Draft documents used in tort and personal injury law.
- 4. Analyze the ethical considerations of the paralegal's role in tort and personal injury law.

#### LGLA 2307 – Law Office Management (WECM)

- Analyze the fundamental principles of management, administration and substantive systems of the law office.
- 2. Implement use of technology in the management and administration of the law office.
- 3. Analyze the ethical considerations of the paralegal in the law office.

#### LGLA 2309 – Real Property (WECM)

- 1. Use terminology relating to real property law.
- 2. Analyze sources relating to real property law.
- 3. Draft documents used in real property transactions.
- 4. Analyze the ethical considerations of the paralegal regarding real property law.

#### LGLA 2311 – Business Organizations (WECM)

- 1. Use terminology relating to business organizations.
- 2. Analyze sources of law relating to business organizations.
- 3. Draft documents required for the formation, operation, and termination of business entities.
- 4. Ethical considerations of the Paralegal relating to business entities.

#### LGLA 2313 – Criminal Law and Procedure (WECM)

- 1. Use terminology relating to criminal law and procedure.
- 2. Analyze cases relating to criminal law and procedure.
- 3. Draft documents used in criminal law and procedure.
- 4. Analyze the ethical considerations of the paralegal relating to criminal law and procedure.

### **LGLA 2333 - Advanced Legal Document Preparation (WECM)**

- 1. Use terminology related to legal document preparation.
- 2. Draft transaction and litigation documents based on hypothetical situations.
- 3. Distinguish among the various transaction and litigation documents.
- 4. Analyze the ethical considerations of the paralegal relating to legal document preparation.

### LGLA 2380 - Cooperative Education - Legal Assistant/Paralegal (WECM/Faculty Defined)

1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic,

- environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills.
- 3. Demonstrate appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

#### **MAIR**

#### MAIR 1349 – Refrigerators, Freezers, Window Air Conditioners (WECM)

- 1. Describe and apply refrigeration theory and refrigeration cycle.
- 2. Troubleshoot, diagnose and repair sealed systems.
- 3. Use schematics.
- 4. Identify the components of air conditioning and refrigeration appliances and the test instruments and tools needed.
- 5. Cut, swag, and flare tubing.
- 6. Identify and troubleshoot electrical control systems.
- 7. Describe the sequence of operation of defrost systems.
- 8. Describe and demonstrate evacuation and charging/recharging of air conditioning and refrigeration appliances.

# **MATH**

#### MATH 0020 - Math Fundamentals (ACGM)

- 1. Define, represent, and perform operations on real and complex numbers.
- 2. Recognize, understand, and analyze features of a function.
- 3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial and rational expressions.
- 4. Identify and solve absolute value, polynomial and rational equations.
- 5. Identify and solve absolute value and linear inequalities.
- 6. Model, interpret and justify mathematical ideas and concepts using multiple representations.
- 7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines.

#### MATH 0023 – Essential Math (ACGM)

- 1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
- 2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.
- 3. Apply graphing techniques.
- 4. Evaluate all roots of higher degree polynomial and rational functions.
- 5. Recognize, solve and apply systems of linear equations using matrices.

#### MATH 0320 – STAR Foundations of Math (ACGM/Faculty Defined)

- 1. Apply the language and notation of sets.
- 2. Determine the validity of an argument or statement and provide mathematical evidence.
- 3. Solve problems in mathematics of finance.
- 4. Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.
- 5. Interpret and analyze various representations of data.
- Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.

## MATH 0321 - Introductory Algebra (ACGM)

- 1. Define, represent and perform operations on real and complex numbers.
- 2. Recognize, understand, and analyze features of a function.
- 3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial and rational expressions.
- 4. Identify and solve absolute value, polynomial and rational equations.
- 5. Identify and solve absolute value and linear inequalities.
- 6. Model, interpret and justify mathematical ideas and concepts using multiple representations.
- 7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines.

#### MATH 0322 - Intermediate Algebra (ACGM)

- 1. Define, represent, and perform operations on real and complex numbers.
- 2. Recognize, understand, and analyze features of a function.
- 3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions.
- 4. Identify and solve absolute value, polynomial, radical, and rational equations.
- 5. Identify and solve absolute value and linear inequalities.
- 6. Model, interpret and justify mathematical ideas and concepts using multiple representations.
- 7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines.

#### MATH 1314 – College Algebra (ACGM)

- 1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
- 2. Recognize and apply polynomial, rational, radical, exponential and logarithmic functions and solve related equations.
- 3. Apply graphing techniques.
- 4. Evaluate all roots of higher degree polynomial and rational functions.
- 5. Recognize, solve and apply systems of linear equations using matrices.

#### MATH 1324 - Mathematics for Business & Social Sciences (ACGM)

- 1. Apply elementary functions, including linear, quadratic, polynomial, rational, logarithmic, and exponential functions to solving real-world problems.
- 2. Solve mathematics of finance problems, including the computation of interest, annuities, and amortization of loans.
- 3. Apply basic matrix operations, including linear programming methods, to solve application problems.
- 4. Demonstrate fundamental probability techniques and application of those techniques, including expected value, to solve problems.
- 5. Apply matrix skills and probability analyses to model applications to solve real-world problems.

# MATH 1325 - Calculus for Business & Social Sciences (ACGM)

- 1. Apply calculus to solve business, economics, and social sciences problems.
- 2. Apply appropriate differentiation techniques to obtain derivatives of various functions, including logarithmic and exponential functions.
- 3. Solve application problems involving implicit differentiation and related rates.
- 4. Solve optimization problems with emphasis on business and social sciences applications.
- 5. Determine appropriate technique(s) of integration.
- 6. Integrate functions using the method of integration by parts or substitution, as appropriate.
- 7. Solve business, economics, and social sciences applications problems using integration techniques.

# MATH 1332 - Contemporary Mathematics (Quantitative Reasoning) (ACGM)

- 1. Apply the language and notation of sets.
- 2. Determine the validity of an argument or statement and provide mathematical evidence.
- 3. Solve problems in mathematics of finance.
- 4. Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.
- 5. Interpret and analyze various representations of data.
- 6. Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.

#### MATH 1342 – Elementary Statistical Methods (ACGM)

- 1. Explain the use of data collection and statistics as tools to reach reasonable conclusions.
- 2. Recognize, examine and interpret the basic principles of describing and presenting data.
- 3. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
- 4. Explain the role of probability in statistics.
- 5. Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.
- 6. Describe and compute confidence intervals.
- 7. Solve linear regression and correlation problems.
- 8. Perform hypothesis testing using statistical methods.

#### MATH 1350 – Mathematics for Teachers I (Fundamental of Mathematics I) (ACGM)

1. Explain and model the arithmetic operations for whole numbers and integers.

- 2. Explain and model computations with fractions, decimals, ratios, and percentages.
- 3. Describe and demonstrate how factors, multiples, and prime numbers are used to solve problems.
- 4. Apply problem solving skills to numerical applications.
- 5. Represent and describe relationships among sets using the appropriate mathematical terminology and notation.
- 6. Compare and contrast structures of numeration systems.

#### MATH 1351 – Mathematics for Teachers II (Fundamental of Mathematics II) (ACGM)

- 1. Apply fundamental terms of geometry such as points, lines, and planes to describe two and three dimensional figures.
- 2. Make and test conjectures about figures and geometric relationships.
- 3. Use a variety of methods to identify and justify congruency and similarity of geometric objects.
- 4. Perform geometric transformations.
- 5. Demonstrate fundamental probability techniques and apply those techniques to solve problems.
- 6. Explain the use of data collection and statistics as tools to reach reasonable conclusions.
- 7. Recognize, examine, and utilize the basic principles of describing and presenting data.
- 8. Perform measurement processes and explain the concept of a unit of measurement.
- 9. Develop and use formulas for the perimeter, area, and volume for a variety of figures.

#### MATH 2305 – Discrete Mathematics (ACGM)

- 1. Construct mathematical arguments using logical connectives and quantifiers.
- 2. Verify the correctness of an argument using propositional and predicate logic and truth tables.
- 3. Demonstrate the ability to solve problems using counting techniques and combinatorics in the context of discrete probability.
- 4. Solve problems involving recurrence relations and generating functions.
- 5. Use graphs and trees as tools to visualize and simplify situations.
- 6. Perform operations on discrete structures such as sets, functions, relations, and sequences.
- 7. Construct proofs using direct proof, proof by contraposition, proof by cases, and mathematical induction.
- 8. Apply algorithms and use definitions to solve problems to prove statements in elementary number theory.

#### MATH 2412 - Pre-Calculus Math (ACGM)

- 1. Demonstrate and apply knowledge of properties of functions.
- 2. Recognize and apply algebraic and transcendental functions and solve related equations.
- 3. Apply graphing techniques to algebraic and transcendental functions.
- 4. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
- 5. Prove trigonometric identities.
- 6. Solve right and oblique triangles.

#### MATH 2413 - Calculus I (ACGM)

1. Develop solutions for tangent and area problems using the concepts of limits, derivatives, and

- integrals.
- 2. Draw graphs of algebraic and transcendental functions considering limits, continuity, and differentiability at a point.
- 3. Determine whether a function is continuous and/or differentiable at a point using limits.
- 4. Use differentiation rules to differentiate algebraic and transcendental functions.
- 5. Identify appropriate calculus concepts and techniques to provide mathematical models of real-world situations and determine solutions to applied problems.
- 6. Evaluate definite integrals using the Fundamental Theorem of Calculus.
- 7. Articulate the relationship between derivatives and integrals using the Fundamental Theorem of Calculus.

#### MATH 2414 - Calculus II (ACGM)

- 1. Use the concepts of definite integrals to solve problems involving area, volume, work, and other physical applications.
- 2. Use substitution, integration by parts, trigonometric substitution, partial fractions, and tables of anti-derivatives to evaluate definite and indefinite integrals.
- 3. Define an improper integral.
- 4. Apply the concepts of limits, convergence, and divergence to evaluate some classes of improper integrals.
- 5. Determine convergence or divergence of sequences and series.
- 6. Use Taylor and MacLaurin series to represent functions.
- 7. Use Taylor or MacLaurin series to integrate functions not integrable by conventional methods.
- 8. Use the concept of polar coordinates to find areas, lengths of curves, and representations of conic sections.

#### MATH 2415 – Calculus III (ACGM)

- 1. Perform calculus operations on vector-valued functions, including derivatives, integrals, curvature, displacement, velocity, acceleration, and torsion.
- 2. Perform calculus operations on functions of several variables, including partial derivatives, directional derivatives, and multiple integrals.
- 3. Find extrema and tangent planes.
- 4. Solve problems using the Fundamental Theorem of Line Integrals, Green's Theorem, the Divergence Theorem, and Stokes' Theorem.
- 5. Apply the computational and conceptual principles of calculus to the solutions of real-world problems.

#### MATH 2418 – Linear Algebra (ACGM)

- 1. Be able to solve systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion.
- 2. Be able to carry out matrix operations, including inverses and determinants.
- 3. Demonstrate understanding of the concepts of vector space and subspace.
- 4. Demonstrate understanding of linear independence, span, and basis.
- 5. Be able to determine eigenvalues and eigenvectors and solve problems involving eigenvalues.
- 6. Apply principles of matrix algebra to linear transformations.
- 7. Demonstrate application of inner products and associated norms.

## MATH 2420 – Differential Equations (ACGM)

- 1. Identify homogeneous equations, homogeneous equations with constant coefficients, and exact and linear differential equations.
- 2. Solve ordinary differential equations and systems of equations using:
  - a. Direct integration
  - b. Separation of variables
  - c. Reduction of order
  - d. Methods of undetermined coefficients and variation of parameters
  - e. Series solutions
  - f. Operator methods for finding particular solutions
  - g. Laplace transform methods
- 3. Determine particular solutions to differential equations with given boundary conditions or initial conditions.
- 4. Analyze real-world problems in fields such as Biology, Chemistry, Economics, Engineering, and Physics, including problems related to population dynamics, mixtures, growth and decay, heating and cooling, electronic circuits, and Newtonian mechanics.

# **MDCA**

# MDCA 1309 – Anatomy and Physiology for Medical Assistants (WECM)

- 1. Identify and correlate cells, tissues, organs, and systems of the human body.
- 2. Differentiate normal from abnormal structure and function.
- 3. Differentiate all body systems, their organs, and relevant pathophysiology.

# MDCA 1343 - Medical Insurance (WECM)

- 1. Code procedures and bill for services using both electronic and manual methods.
- 2. Compare and contrast insurance plans.
- 3. Define common terms used to file third party reimbursement forms.

# **MLAB**

# MLAB 1201 – Introduction to Clinical Laboratory Science (WECM)

- 1. Perform laboratory math.
- 2. Identify laboratory equipment.
- 3. Describe quality control, safety, accreditation, certification, professionalism, and ethics.

#### MLAB 1227 – Coagulation (WECM)

- 1. Apply principles of safety, quality assurance and quality control in coagulation.
- 2. Evaluate specimen acceptability.
- 3. Compare and contrast coagulation processes under normal and abnormal human conditions.
- 4. Perform basic laboratory coagulation analysis.
- 5. Evaluate laboratory test results and correlate with patient condition(s).

### MLAB 1231 – Parasitology/Mycology (WECM)

- 1. Apply principles of safety, quality assurance, and quality control.
- 2. Evaluate specimen acceptability.
- 3. Describe basic morphology and physiology of parasites and fungi.

- 4. Classify parasites and fungi.
- 5. Perform appropriate laboratory techniques used in the processing of specimens and identification of parasites and fungi.
- 6. Evaluate and correlate test results with patient condition(s).

#### MLAB 1260 - Clinical - Clinical/Medical Laboratory Technician (WECM/Faculty Defined)

- 5. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 6. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 7. Accurately perform laboratory clerical work, including data entry and patient reports.
- 8. Identifies patient specimen and test request by using two identifiers.
- 9. Operates automated instrument by performing quality control, maintenance, calibrations, and troubleshooting.
- 6. Handles expected workload for entry level technician.

#### MLAB 1263 - Clinical - Clinical/Medical Laboratory Technician (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Identifies specimens unacceptable for testing.
- 4. Recognizes panic values by taking appropriate actions.
- 5. Recognizes emergency lab requests by taking appropriate actions.
- 6. Performs and interpret quality control procedures as established by the laboratory.
- 7. Handles expected workload for entry level technician.

# MLAB 1311 - Urinalysis and Body Fluids (WECM)

- 1. Apply principles of safety, quality assurance and quality control.
- 2. Evaluate specimen acceptability.
- 3. Explain principles of each test included in a routine urinalysis.
- 4. Describe the composition, formation and function of selected body fluids.
- 5. Explain the anatomy and functions of the renal system.
- 6. Evaluate and correlate laboratory results with patient condition(s).

### MLAB 1335 – Immunology/Serology (WECM)

- 1. Apply principles of safety, quality assurance and quality control in Immunology/Serology.
- 2. Evaluate specimen acceptability.
- 3. Describe the principles involved in the immune response.
- 4. Identify the structure, function, and characteristics of immunoglobulins.
- 5. Explain the principles of and perform serological tests.

6. Evaluate and correlate test results with associated diseases or conditions.

#### MLAB 1415 – Hematology (WECM)

- 1. Apply principles of safety, quality assurance and quality control in Hematology.
- 2. Evaluate specimen acceptability.
- 3. Compare and contrast hematology values under normal and abnormal conditions.
- 4. Perform and explain principles and procedures of tests to include sources of error and clinical significance of results.
- 5. Evaluate normal and abnormal cell morphology with associated diseases.

### MLAB 2132 – Seminar in Medical Laboratory Technology (WECM)

- 1. Correlate the patient aspects of disease states.
- 2. Analyze critical data.
- 3. Explain the integration between the various laboratory disciplines.

## MLAB 2260 - Clinical - Clinical/Medical Laboratory Technician (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Defends decisions related to laboratory work in a manner consistent with his or her level of education and ability. (Faculty Defined)
- 4. Demonstrate confidence to perform the procedures in a reasonable period of time. (Faculty Defined)
- 5. Performs and interpret quality control procedures as established by the laboratory. (Faculty Defined)
- 6. Handles expected workload for entry level technician.

#### MLAB 2263 - Clinical - Clinical/Medical Laboratory Technician (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- Understand the importance of punctuality and attendance at each day of clinical as
  demonstrated by a good attendance record and promptly notifying the MLT faculty and, if
  applicable, the clinical facility of any absences or tardiness. (Faculty Defined)
- 2. Demonstrate understanding of the many needs/requirements of the clinical laboratory through awareness of the departmental workloads, maintaining accurate records, restocking supplies as necessary and cleaning up work area at the completion of clinical activities. (Faculty Defined)
- 3. Performs and interpret quality control procedures as established by the laboratory. (Faculty Defined)

4. Handles expected workload for entry level technician.

#### MLAB 2401 – Clinical Chemistry (WECM)

- 1. Apply principles of safety, quality assurance and quality control in Clinical Chemistry.
- 2. Evaluate specimen acceptability for chemical analysis.
- 3. Compare and contrast human body chemistry levels under normal and abnormal conditions.
- 4. Explain, perform and evaluate clinical chemistry procedures and correlate test results with patient conditions.

#### MLAB 2431 – Immunohematology (WECM)

- 1. Apply principles of safety, quality assurance and quality control in Immunohematology.
- 2. Evaluate specimen acceptability.
- 3. Describe blood group genetics, characteristics of the blood group systems, and the principles of immunology as they relate to immunohematology.
- 4. List the requirements for the donation of blood.
- 5. Describe the preparation, storage, and use of blood components.
- 6. Evaluate laboratory test results.
- 7. Select additional procedures to be performed.
- 8. Correlate test results with patient conditions.
- 9. Describe the principles of and perform routine blood bank tests.

#### MLAB 2534 – Clinical Microbiology (WECM)

- 1. Apply principles of safety, quality assurance and quality control in Clinical Microbiology.
- 2. Evaluate specimen acceptability.
- 3. Describe morphology and physiology of microbes.
- 4. Identify and classify microorganisms.
- 5. Demonstrate sterile technique.
- 6. Perform and interpret antimicrobial susceptibility testing.
- 7. Select additional procedures based on preliminary results.
- 8. Correlate test results with patient condition(s).

# **MRKG**

#### MRKG 1301 – Customer Relationship Management (WECM)

1. Examine internal and external customer relationship management (CRM) strategies.

# MRKG 1311 – Principles of Marketing (WECM)

- 1. Identify the marketing mix components in relation to market segmentation.
- 2. Explain the environmental factors which influence consumer and organizational decision-making processes.
- 3. Outline a marketing plan.

### **MUAP**

# MUAP 1200 – Applied Music I (ACGM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and

industry trends. Check syllabus for updates on student learning outcomes.

#### MUAP 1211 – Applied Guitar I (ACGM/Faculty Defined)

2. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

#### MUAP 1212 – Applied Guitar II (ACGM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

# MUAP 2211 - Applied Guitar III (ACGM/Faculty Defined)

- 1. Perform solo guitar works, which demonstrate a high level of technical AND expressive mastery with repertoire appropriate to the major.
- Be acquainted with stylistic expressive differences in repertoire representative of the Renaissance, Baroque, Classical, Romantic, and Modern eras and to perform such selections successfully.
- 3. Demonstrate a mastery of the process of preparing music for performance so that they understand and utilize the training elements conducive to success in musical performance and instruction.
- 4. Demonstrate an ability to express verbally all of the above elements in pedagogic terms.

#### MUAP 2212 – Applied Guitar IV (ACGM/ Faculty Defined)

- 1. Perform solo guitar works, which demonstrate a high level of technical AND expressive mastery with repertoire appropriate to the major.
- 2. Be acquainted with stylistic expressive differences in repertoire representative of the Renaissance, Baroque, Classical, Romantic, and Modern eras and to perform such selections successfully.
- 3. Demonstrate a mastery of the process of preparing music for performance so that they understand and utilize the training elements conducive to success in musical performance and instruction.
- 4. Demonstrate an ability to express verbally all of the above elements in pedagogic terms.

# **MUEN**

#### MUEN 1120 - Music Ensemble I (ACGM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

# MUEN 2120 – Music Ensemble II (ACGM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

#### MUEN 1131 - Classical Guitar Ensemble (ACGM/Faculty Defined)

2. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

#### MUEN 1151 – Chorale Ensemble (ACGM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

# **MUSI**

#### MUSI 1116 – Sight Singing & Ear Training I (ACGM)

- 1. Apply a method of sight singing to diatonic melodies in treble and bass clef, and oral demonstration of simple rhythms.
- 2. Classify elements of music, such as scales, intervals and chords.
- 3. Transcribe aural rhythms and diatonic melodies.
- 4. Transcribe and analyze aural basic harmonic progressions.
- 5. Read and reproduce rhythms in various simple meters.

#### MUSI 1117 – Sight Singing & Ear Training II (ACGM)

- 1. Apply a method of sight singing to diatonic melodies in various clefs, and oral demonstration of simple and compound rhythms.
- 2. Classify elements of music, such as scales, intervals and chords.
- 3. Transcribe more complex aural rhythms and diatonic melodies.
- 4. Transcribe and analyze diatonic harmonic progressions.
- 5. Read and reproduce rhythms in various simple and compound meters.

## MUSI 1181 - Piano Class I (ACGM)

- 1. Produce five finger patterns in major and minor keys.
- 2. Play major and minor scales in selected keys.
- 3. Construct and play chords of different qualities.
- 4. Harmonize a melody.
- 5. Perform selected compositions.

#### MUSI 1182 – Piano Class II (ACGM)

- 1. Play additional major and minor scales.
- 2. Introduce select chord progressions and concepts of voice leading.
- 3. Continued harmonization of melodies.
- 4. Perform selected compositions.

#### MUSI 1192 – Guitar Class (ACGM)

- 1. Show proper left and right hand technique.
- 2. Demonstrate an understanding of basic music reading in first position.
- 3. Perform basic harmonic chord progressions.

#### MUSI 1303 – Fundamentals of Music (ACGM)

- 1. Construct all major and minor scales and key signatures.
- 2. Construct simple and compound intervals, triads and seventh chords of any quality.
- 3. Identify and perform basic rhythmic and pitch patterns common in tonal music, and properly notate basic rhythms in simple or compound meters.
- 4. Identify fundamental musical elements aurally and/or on the keyboard.
- 5. Use appropriate musical vocabulary to describe theoretical concepts.

# MUSI 1304 – Foundations of Music (ACGM/Faculty Defined)

- 1. Students will demonstrate knowledge of Texas Essential Knowledge and Skills (TEKS) requirements for the elementary education classroom.
- 2. Students will learn the fundamental elements of music including rhythmic and melodic notation, basic music history, and performance skills.
- 3. Students will demonstrate music literacy by singing or playing musical instruments in class, as well

- as composing and arranging elementary-level musical works.
- 4. Students will demonstrate ability to integrate music into their curricula in various disciplines, including, but not limited to Mathematics, Science, Reading, Geography, History, Theatre and Dance.

#### MUSI 1306 – Music Appreciation (ACGM)

- 1. Identify musical works and elements in a variety of styles.
- 2. Analyze the elements and structures of music using appropriate terminology.
- 3. Critically evaluate the influence of social, political, technological, and/or cultural ideas on music.
- 4. Articulate the significance of music as an art form within historical, cultural and social contexts.

#### **MUSI 1307 – Music Literature (ACGM)**

- 1. Identify the major periods of music history, general style characteristics and genres of each period, and major composers of each period and representative works.
- 2. Articulate the relationship between historical developments and events with musical styles and aesthetics.
- 3. Critically evaluate musical works using specific terminology and listening skills.

# MUSI 1310 - American Music (ACGM)

- 1. Identify the elements, styles, and musicians representative of music within the chosen style(s).
- 2. Analyze the elements and structures of music using appropriate terminology.
- 3. Critically evaluate the influence of social, political, technological, and/or cultural ideas on the chosen musical style(s).
- 4. Articulate an informed personal reflection of the chosen musical style(s).

#### MUSI 1311 - Music Theory I (ACGM)

- 1. Construct and identify major scale and all forms of the minor scale.
- 2. Construct and identify triads and seventh chords in all inversions.
- 3. Analyze triads in harmonic context utilizing standard roman-numeral symbols.
- 4. Compose music in standard four-part chorale style.
- 5. Identify small musical forms.
- 6. Demonstrate musical concepts covered in class, including scales, triads, and basic harmonic progression on the keyboard.
- 7. Demonstrate an understanding of rhythmic meter and note duration through score analysis and composition.

## MUSI 1312 - Music Theory II (ACGM)

- 1. Construct and identify all triads and seventh chords in root position and inversions.
- 2. Properly utilize and identify all non-chord tones.
- 3. Analyze harmonic progressions utilizing standard roman-numeral symbols.
- 4. Compose original harmonic progressions that properly utilize functional harmony.
- 5. Demonstrate on the keyboard musical concepts covered in class, including triads in inversions and progressions with non-chord tones.
- 6. Demonstrate an understanding of rhythmic meter and note duration through score analysis and composition.

### MUSI 2116 - Sight Singing & Ear Training III (ACGM)

1. Apply a method of sight singing to more difficult tonal melodies, oral demonstration of complex

- rhythms.
- 2. Classify more difficult elements of music, including extended-tertian chords, compound intervals, and non-diatonic scales.
- 3. Transcribe more complex rhythms and diatonic and non-diatonic melodies.
- 4. Transcribe and analyze diatonic and chromatic harmonies.
- 5. Read and reproduce rhythms in various meters, including syncopation and irregular beat divisions.

## MUSI 2117 – Sight Singing & Ear Training IV (ACGM)

- 1. Apply a method of sight singing to more difficult diatonic and non-diatonic melodies, including modes and non-tonal scales.
- 2. Transcribe more complex rhythms, including contemporary materials.
- 3. Transcribe increasingly more chromatic melodies.
- 4. Transcribe and analyze diatonic and chromatic harmonies.
- 5. Read and reproduce rhythms in various meters, including asymmetrical meters, syncopation, and irregular beat divisions.

#### MUSI 2311 - Music Theory III (ACGM)

- 1. Construct and identify extended-tertian and chromatic harmonies.
- 2. Analyze musical compositions, which include various forms of tonal modulation utilizing standard roman-numeral symbols.
- 3. Demonstrate proper voice-leading practices through composition in appropriate styles.
- 4. Demonstrate concepts covered in class on the keyboard, including progressions that utilize modulation.
- 5. Demonstrate an understanding of rhythmic meter and note duration through score analysis and composition.

## MUSI 2312 - Music Theory IV (ACGM)

- 1. Construct and identify advanced chromatic harmonies.
- 2. Analyze musical compositions that utilize advanced chromatic harmonies and foreign-key modulation techniques.
- 3. Analyze musical compositions that utilize a variety of post-tonal practices.
- 4. Compose music utilizing appropriate post-tonal practices.
- 5. Demonstrate musical concepts covered in class on the keyboard.
- 6. Demonstrate an understanding of rhythmic meter and note duration through score analysis and composition.

# **NURA**

# NURA 1301 – Nurse Aid for Healthcare (WECM)

- 1. Discuss basic care of residents in a long-term care facility.
- 2. Communicate and interact effectively with residents and their families based on sensitivity to their psychosocial needs.
- 3. Discuss the rights of the residents.
- 4. Provide safety and preventative measures in the care of residents.
- 5. Demonstrate skills in observing and reporting.
- 6. Assist residents in obtaining and maintaining maximum functional independence.
- 7. Function effectively as a member of the healthcare team.

#### NURA 1160 - Clinical Nursing Assistant/Aide and Patient Care Assistant/Aide (WECM)

- 1. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry;
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

# ORIN

#### ORIN 0101 - Freshman Seminar Course (ACGM/Faculty Defined)

- 1. Build resiliency through pathways
- 2. Demonstrate financial literacy
- 3. Discover and utilize Student Services
- 4. Access campus resources
- 5. Identify and employ activities that improve learning skills
- 6. Develop strategies for personal well-being
- 7. Apply time-management strategies
- 8. Explain and produce creative and critical thinking.

# **PFPB**

### PFPB 1306 - Basic Blueprint Reading for Plumbers (WECM)

1. Interpret and sketch isometric drawings of drain, waste, vent, hot and cold water, and gas systems.

# PFPB 1321 - Plumbing Maintenance and Repair (WECM)

- 1. Identify and repair various types of DWV and water supply systems.
- 2. Apply general principles of public relations.

#### PFPB 2308 - Piping Standards and Materials (WECM)

- 1. Identify metallic and non-metallic pipe and tubing; interpret pipe specifications.
- 2. Describe various types of valves and fittings.
- 3. Explain valve applications.

# PFPB 2309 - Residential Construction Plumbing I (WECM)

- 1. Rough-in drain, waste, and vent pipes.
- 2. Install domestic water lines.
- 3. Install gas lines.
- 4. Set control valves.

#### PHED

### PHED 1116 – Jogging (ACGM/Faculty Defined)

- 1. Identify the intensity of exercise by calculating the target hearth rate formula.
- 2. Demonstrate proper biomechanics, warm-up and cool down to prevent and eliminate potential

injury.

- 3. Compare (BMI) Body Mass Index from pre to post exercise and predict its lifelong importance.
- 4. Judge proper hydration by examination of urine and skin pinch test.
- 5. Develop a lifetime participation in health and fitness.
- 6. Explain the physical, emotional, and social benefits of a regular exercise regimen.
- 7. Demonstrate ability to design a personal wellness program incorporating proper diet, exercise.

# PHED 1164 – Introduction to Physical Fitness & Wellness (ACGM)

- 1. Describe how the components of physical fitness impact health and wellness.
- 2. Explain the influence of personal behaviors and personal responsibilities on the development, treatment, and prevention of hypokinetic diseases, infectious diseases, stress, and addiction.
- 3. Analyze the relationship between physical activity, inactivity, and nutrition on weight and body composition.
- 4. Plan, implement, and evaluate a personal fitness program.
- 5. Develop an appreciation and positive attitude for a healthy lifestyle and the effects of global trends on physical activity.

#### PHED 1301 – Foundations of Kinesiology (ACGM)

- 1. Distinguish between and identify terminology and research within the sub-disciplines in the field of Kinesiology and their application to diverse careers.
- 2. Summarize the historical and philosophical approaches to physical activity, physical education, exercise science and sport.
- 3. Identify the characteristics of a physically educated person and the importance of assessment and advocacy in physical education, exercise science, and sport.
- 4. Discuss how the changing nature of education and technological advances may influence physical education, exercise science, and sport in the future.
- 5. Identify major professional organizations, foundations, and associations supporting physical activity at local, state, national and international levels as well as data tools and resources.

# PHED 1306 - First Aid (ACGM)

- 1. Explain the workings of the systems in the human body particularly those systems, which are likely affected in emergency care.
- 2. Recognize and meet the needs of emergency situations including (but not limited to) first aid care, emergency assistance, life support skills, EMS protocols, CPR, and AED.
- 3. Justify layperson and professional roles and responsibilities in emergency situations including but not limited to legal ramifications, barriers to action, requirements for action, and psychological responses.
- 4. Explain and demonstrate skills for treating victims including (but not limited to) musculoskeletal injuries, bleeding, choking, and environmental emergencies.
- 5. Explain and demonstrate skills for respiratory distress including (but not limited to) CPR, rescue breathing, obstructed airway, and usage of an AED devices.
- 6. Promote safety and preventative educational methods that reduce the risk of injury, accidents, and life-style related diseases.

#### PHED 1331 – Physical Education for Elementary Education Majors (ACGM/Faculty Defined)

- 1. Distinguish the relationship between physical activity and the development of muscular strength, endurance, skeletal growth and body composition.
- 2. Justify the need for a quality physical education program in elementary schools based on the health benefits it can offer children.
- 3. Utilizing TEKS objectives and recognize the distinctive contributions of physical education, when constructing the unit plan.
- 4. Apply and interpret research to develop appropriate unit plan accommodations for special needs population.
- 5. Construct a unit plan with emphasis in physical activity, fitness and skills with proper scope and sequence.
- 6. Interpret the supervisory responsibilities to ensure safety, with emphasis on prevention to avoid negligence.

#### PHED 1338 - Concepts of Physical Fitness (ACGM)

- 1. Describe the elements of health-related physical fitness, performance related physical fitness, inactivity, and hypokinetic diseases on health and wellness.
- 2. Distinguish the influence of personal behavior and responsibility on the development, treatment, and prevention of infectious diseases, stress, and addictions.
- 3. Compare and contrast the relationships among physical activity, nutrition, and body composition.
- 4. Participate in physical fitness activities that will aid in assessing personal health related fitness.
- 5. Design, implement, and evaluate fitness programs to promote societal lifetime physical fitness.

#### PHYS

### PHYS 1101 – College Physics I – Lab (ACGM)

- 1. Demonstrate techniques to set up and perform experiments, collect data from those experiments, and formulate conclusions from an experiment.
- 2. Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports.
- 3. Determine the components of linear motion (displacement, velocity, and acceleration), and especially motion under conditions of constant acceleration.
- 4. Apply Newton's laws to physical problems including gravity.
- 5. Solve problems using principles of energy.
- 6. Describe the components of a wave and relate those components to mechanical vibrations, sound, and decibel level.
- 7. Use principles of impulse and linear momentum to solve problems.
- 8. Solve problems in rotational kinematics and dynamics, including the determination of the location of the center of mass and center of rotation for rigid bodies in motion.
- 9. Solve problems involving rotational and linear motion.
- 10. Demonstrate an understanding of equilibrium, including the different types of equilibrium.
- 11. Discuss simple harmonic motion and its application to quantitative problems or qualitative questions.

- 12. Solve problems using the principles of heat and thermodynamics.
- 13. Solve basic fluid mechanics problems.

# PHYS 1102 – College Physics II – Lab (ACGM)

- 1. Develop techniques to set up and perform experiments, collect data from those experiments, and formulate conclusions from an experiment.
- 2. Demonstrate the collections, analysis, and reporting of data using the scientific method.
- 3. Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports.
- 4. Solve problems involving the inter-relationship of fundamental charged particles, and electrical forces, fields, and currents.
- 5. Apply Kirchhoff's Rules to analysis of circuits with potential sources, capacitance, inductance, and resistance, including parallel and series capacitance and resistance.
- 6. Solve problems in the electrostatic interaction of point charges through the application of Coulomb's Law.
- 7. Solve problems involving the effects of magnetic fields on moving charges or currents, and the relationship of magnetic fields to the currents which produce them.
- 8. Use Faraday's and Lenz's laws to determine electromotive forces and solve problems involving electromagnetic induction.
- 9. Solve problems applying the principles of reflection, refraction, diffraction, interference, and superposition of waves.
- 10. Solve practical problems involving optics, lenses, mirrors, and optical instruments.

# PHYS 1115 – Physical Science I Laboratory Century Energy Science (ACGM/Faculty Defined)

- 1. Prepare laboratory reports that clearly communicate experimental information in a logical and scientific manner.
- 2. Evaluate the accuracy of physical measurements and the potential sources of error in the measurements.
- 3. Conduct basic laboratory experiments involving classical mechanics
- 4. Conduct basic laboratory experiments involving electricity and magnetism
- 5. Analyze and solve problems relating to heat, thermodynamics, electricity and magnetism
- 6. Analyze and answer questions related to the structure and motions of the solar system, galaxy and universe

#### PHYS 1301 – College Physics I (ACGM)

- 1. Determine the components of linear motion (displacement, velocity, and acceleration), and especially motion under conditions of constant acceleration.
- 2. Apply Newton's laws to physical problems including gravity.
- 3. Solve problems using principles of energy.
- 4. Use principles of impulse and linear momentum to solve problems.
- 5. Solve problems in rotational kinematics and dynamics, including the determination of the location of the center of mass and center of rotation for rigid bodies in motion.
- 6. Solve problems involving rotational and linear motion.
- 7. Describe the components of a wave and relate those components to mechanical vibrations, sound, and decibel level.

- 8. Demonstrate an understanding of equilibrium, including the different types of equilibrium.
- 9. Discuss simple harmonic motion and its application to quantitative problems or qualitative questions.
- 10. Solve problems using the principles of heat and thermodynamics.
- 11. Solve basic fluid mechanics problems.

### PHYS 1302 - College Physics II (ACGM)

- 1. Solve problems involving the inter-relationship of fundamental charged particles, and electrical forces, fields, and currents.
- 2. Apply Kirchhoff's Rules to analysis of circuits with potential sources, capacitance, inductance, and resistance, including parallel and series capacitance and resistance.
- 3. Solve problems in the electrostatic interaction of point charges through the application of Coulomb's Law.
- 4. Solve problems involving the effects of magnetic fields on moving charges or currents, and the relationship of magnetic fields to the currents which produce them.
- 5. Use Faraday's and Lenz's laws to determine electromotive forces and solve problems involving electromagnetic induction.
- 6. Articulate the principles of reflection, refraction, diffraction, interference, and superposition of waves.
- 7. Describe the characteristics of light and the electromagnetic spectrum.

# PHYS 1305 Elementary Physics I (ACGM/Faculty Defined)

- 1. Explain at least two physical laws and/or physics principles covered.
- 2. Apply concepts involving physics principles to solve problems.
- 3. Use basic equations to solve simple wave and sound problems.

#### PHYS 1315 – Physical Science | Science (ACGM/Faculty Defined)

- 1. Discuss the nature of science, the scientific method, and the historical development of some of the laws of physics
- 2. Explain how science and technology influenced social changes
- 3. Apply the most basic concepts of physics such as Newton's Laws of motion, momentum, energy and the properties of waves, including light and sound.
- 4. Analyze and solve problems relating to heat, thermodynamics, electricity and magnetism
- 5. Explain the origin, structure and motions of the solar system, galaxy and universe.

### PHYS 1317 – Physical Science II (ACGM/Faculty Defined)

- 1. Relate information obtained in the course to current stories in the media about geological and meteorological phenomena.
- 2. Describe the role the scientific method has played in arriving at our current theories about Earth Science and the age of Earth.
- 3. Describe atomic structure and the properties of atoms, molecules and matter during physical and chemical interactions.
- 4. Describe the role of moisture in the atmosphere, including evaporation, condensation, cloud formation, and precipitation.

### PHYS 1401 College Physics I (ACGM)

#### Lecture

- 1. Solve problems involving the inter-relationship of fundamental charged particles, and electrical forces, fields, and currents.
- 2. Apply Kirchhoff's Rules to analysis of circuits with potential sources, capacitance, inductance, and resistance, including parallel and series capacitance and resistance.
- 3. Solve problems in the electrostatic interaction of point charges through the application of Coulomb's Law.
- 4. Solve problems involving the effects of magnetic fields on moving charges or currents, and the relationship of magnetic fields to the currents that produce them.
- 5. Use Faraday's and Lenz's laws to determine electromotive forces and solve problems involving electromagnetic induction.
- 6. Articulate the principles of reflection, refraction, diffraction, interference, and superposition of waves.
- 7. Describe the characteristics of light and the electromagnetic spectrum.

#### Lab

- 1. Develop techniques to set up and perform experiments, collect data from those experiments, and formulate conclusions from an experiment.
- 2. Demonstrate the collections, analysis, and reporting of data using the scientific method.
- 3. Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports.
- 4. Solve problems involving the inter-relationship of fundamental charged particles, and electrical forces, fields, and currents.
- 5. Apply Kirchhoff's Rules to analysis of circuits with potential sources, capacitance, inductance, and resistance, including parallel and series capacitance and resistance.
- 6. Solve problems in the electrostatic interaction of point charges through the application of Coulomb's Law.
- 7. Solve problems involving the effects of magnetic fields on moving charges or currents, and the relationship of magnetic fields to the currents that produce them.
- 8. Use Faraday's and Lenz's laws to determine electromotive forces and solve problems involving electromagnetic induction.
- 9. Solve problems applying the principles of reflection, refraction, diffraction, interference, and superposition of waves.
- 10. Solve practical problems involving optics, lenses, mirrors, and optical instruments.

#### PHYS 1402 College Physics II (ACGM)

#### Lecture

- 1. Solve problems involving the inter-relationship of fundamental charged particles, and electrical forces, fields, and currents.
- 2. Apply Kirchhoff's Rules to analysis of circuits with potential sources, capacitance, inductance, and resistance, including parallel and series capacitance and resistance.
- 3. Solve problems in the electrostatic interaction of point charges through the application of Coulomb's Law.
- 4. Solve problems involving the effects of magnetic fields on moving charges or currents, and the relationship of magnetic fields to the currents that produce them.
- 5. Use Faraday's and Lenz's laws to determine electromotive forces and solve problems involving electromagnetic induction.
- 6. Articulate the principles of reflection, refraction, diffraction, interference, and superposition of waves.
- 7. Describe the characteristics of light and the electromagnetic spectrum

#### Lab

- 1. Develop techniques to set up and perform experiments, collect data from those experiments, and formulate conclusions from an experiment.
- 2. Demonstrate the collections, analysis, and reporting of data using the scientific method.
- 3. Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports.
- 4. Solve problems involving the inter-relationship of fundamental charged particles, and electrical forces, fields, and currents.
- 5. Apply Kirchhoff's Rules to analysis of circuits with potential sources, capacitance, inductance, and resistance, including parallel and series capacitance and resistance.
- 6. Solve problems in the electrostatic interaction of point charges through the application of Coulomb's Law.
- 7. Solve problems involving the effects of magnetic fields on moving charges or currents, and the relationship of magnetic fields to the currents that produce them.
- 8. Use Faraday's and Lenz's laws to determine electromotive forces and solve problems involving electromagnetic induction.
- 9. Solve problems applying the principles of reflection, refraction, diffraction, interference, and superposition of waves.
- 10. Solve practical problems involving optics, lenses, mirrors, and optical instruments.

### PHYS 2125 – University Physics Laboratory I (ACGM)

- 1. Prepare laboratory reports that clearly communicate experimental information in a logical and scientific manner.
- 2. Conduct basic laboratory experiments involving classical mechanics.
- 3. Relate physical observations and measurements involving classical mechanics to theoretical principles.
- 4. Evaluate the accuracy of physical measurements and the potential sources of error in the measurements.
- 5. Design fundamental experiments involving principles of classical mechanics.
- 6. Identify appropriate sources of information for conducting laboratory experiments involving classical mechanics.

#### PHYS 2126 - University Physics Laboratory II (ACGM)

- 1. Prepare laboratory reports that clearly communicate experimental information in a logical and scientific manner.
- 2. Conduct basic laboratory experiments involving electricity and magnetism.
- 3. Relate physical observations and measurements involving electricity and magnetism to theoretical principles.
- 4. Evaluate the accuracy of physical measurements and the potential sources of error in the measurements.
- 5. Design fundamental experiments involving principles of electricity and magnetism.
- 6. Identify appropriate sources of information for conducting laboratory experiments involving electricity and magnetism.

#### PHYS 2289 Academic Cooperative (ACGM/Faculty Defined)

- 1. Design and execute independent research using appropriate methodologies. (Faculty Defined)
- 2. Communicate results in a scientific manner. (Faculty Defined)

#### PHYS 2325 – University Physics I (ACGM)

- 1. Determine the components of linear motion (displacement, velocity, and acceleration), and especially motion under conditions of constant acceleration.
- 2. Solve problems involving forces and work.
- 3. Apply Newton's laws to physical problems.
- 4. Identify the different types of energy.
- 5. Solve problems using principles of conservation of energy.
- 6. Define the principles of impulse, momentum, and collisions.
- 7. Use principles of impulse and momentum to solve problems.
- 8. Determine the location of the center of mass and center of rotation for rigid bodies in motion.
- 9. Discuss rotational kinematics and dynamics and the relationship between linear and rotational motion.
- 10. Solve problems involving rotational and linear motion.
- 11. Define equilibrium, including the different types of equilibrium.
- 12. Discuss simple harmonic motion and its application to real-world problems.
- 13. Solve problems involving the First and Second Laws of Thermodynamics.

### PHYS 2326 – University Physics II (ACGM)

- Articulate the fundamental concepts of electricity and electromagnetism, including electrostatic
  potential energy, electrostatic potential, potential difference, magnetic field, induction, and
  Maxwell's Laws.
- 2. State the general nature of electrical forces and electrical charges, and their relationship to electrical current.
- 3. Solve problems involving the inter-relationship of electrical charges, electrical forces, and electrical fields.
- 4. Apply Kirchhoff's Laws to analysis of circuits with potential sources, capacitance, and resistance, including parallel and series capacitance and resistance.
- 5. Calculate the force on a charged particle between the plates of a parallel-plate capacitor.
- 6. Apply Ohm's law to the solution of problems.
- 7. Describe the effects of static charge on nearby materials in terms of Coulomb's Law.
- 8. Use Faraday's and Lenz's laws to find the electromotive forces.

- 9. Describe the components of a wave and relate those components to mechanical vibrations, sound, and decibel level.
- 10. Articulate the principles of reflection, refraction, diffraction, interference and superposition of waves.
- 11. Solve real-world problems involving optics, lenses, and mirrors.

### PHYS 2425 University Physics I (ACGM)

#### Lecture

- 1. Determine the components of linear motion (displacement, velocity, and acceleration), and especially motion under conditions of constant acceleration.
- 2. Solve problems involving forces and work.
- 3. Apply Newton's laws to physical problems.
- 4. Identify the different types of energy.
- 5. Solve problems using principles of conservation of energy.
- 6. Define the principles of impulse, momentum, and collisions.
- 7. Use principles of impulse and momentum to solve problems.
- 8. Determine the location of the center of mass and center of rotation for rigid bodies in motion.
- 9. Discuss rotational kinematics and dynamics and the relationship between linear and rotational motion.
- 10. Solve problems involving rotational and linear motion.
- 11. Define equilibrium, including the different types of equilibrium.
- 12. Discuss simple harmonic motion and its application to real-world problems.
- 13. Solve problems involving the First and Second Laws of Thermodynamics.

#### Lab

- 1. Prepare laboratory reports that clearly communicate experimental information in a logical and scientific manner.
- 2. Conduct basic laboratory experiments involving classical mechanics.
- 3. Relate physical observations and measurements involving classical mechanics to theoretical principles.
- 4. Evaluate the accuracy of physical measurements and the potential sources of error in the measurements.
- 5. Design fundamental experiments involving principles of classical mechanics.
- 6. Identify appropriate sources of information for conducting laboratory experiments involving classical mechanics

# PHYS 2426 University Physics II (ACGM)

#### Lecture

- Articulate the fundamental concepts of electricity and electromagnetism, including electrostatic
  potential energy, electrostatic potential, potential difference, magnetic field, induction, and
  Maxwell's Laws.
- 2. State the general nature of electrical forces and electrical charges, and their relationship to electrical current.
- 3. Solve problems involving the inter-relationship of electrical charges, electrical forces, and electrical fields.
- 4. Apply Kirchhoff's Laws to analysis of circuits with potential sources, capacitance, and resistance, including parallel and series capacitance and resistance.
- 5. Calculate the force on a charged particle between the plates of a parallel-plate capacitor.
- 6. Apply Ohm's law to the solution of problems.

- 7. Describe the effects of static charge on nearby materials in terms of Coulomb's Law.
- 8. Use Faraday's and Lenz's laws to find the electromotive forces.
- 9. Describe the components of a wave and relate those components to mechanical vibrations, sound, and decibel level.
- 10. Articulate the principles of reflection, refraction, diffraction, interference and superposition of waves.
- 11. Solve real-world problems involving optics, lenses, and mirrors *Lab*
- 1. Prepare laboratory reports that clearly communicate experimental information in a logical and scientific manner.
- 2. Conduct basic laboratory experiments involving electricity and magnetism.
- 3. Relate physical observations and measurements involving electricity and magnetism to theoretical principles.
- 4. Evaluate the accuracy of physical measurements and the potential sources of error in the measurements.
- 5. Design fundamental experiments involving principles of electricity and magnetism.
- 6. Identify appropriate sources of information for conducting laboratory experiments involving electricity and magnetism.

### **PLAB**

# PLAB 1166 – Practicum (or Field Experience) – Phlebotomy/Phlebotomist (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Demonstrates proper organization of supplies and equipment for collection procedures.
- 4. Demonstrates proper procedures for patient identification using two identifiers: must verify name and patient number by checking ID band and other form(s) of ID.
- 5. Performs all blood collection procedures by using correct techniques with 80% accuracy.
- 6. Demonstrates proper sample labeling procedures with correct and appropriate information.

#### PLAB 1323 – Phlebotomy (WECM)

- 1. Demonstrate infection control and safety practices.
- 2. Describe quality assurance as it relates to specimen collection.
- 3. Explain the role of specimen collection in the overall patient care system.
- 4. Identify collection equipment, various types of additives used, special precautions necessary, and substances that can interfere in clinical analysis of blood constituents.
- 5. Demonstrate venipuncture and capillary puncture techniques on adults, children, and infants.
- 6. Explain requisitioning, transport and processing.

# **POFI**

#### POFI 1349 - Spreadsheets (WECM)

- 1. Identify spreadsheet terminology and concepts.
- 2. Calculate data using formulas and functions.
- 3. Create and modify workbooks.
- 4. Insert graphics.
- 5. Generate charts and reports.
- 6. Create and use special functions.

#### POFI 2301 – Word Processing (WECM)

1. Apply basic and advanced formatting skills and special functions to produce documents.

## POFI 2431 – Desktop Publishing (WECM)

- 1. Define desktop publishing terminology.
- 2. Manipulate text and graphics to create a balanced and focused layout.
- 3. Create fliers, brochures, and multiple page documents.

#### **POFM**

# POFM 1300 - Basic Medical Coding (WECM)

- 1. Abstract information from health records for appropriate code validation.
- 2. Code procedures and diagnoses.
- 3. Apply decision-making skills to ensure proper sequencing.

## POFM 1317 – Medical Administrative Support (WECM)

- 1. Schedule patient appointments.
- 2. Create, document, and maintain patient medical records.
- 3. Correlate coding, billing, collecting, and filing procedures.
- 4. Utilize interpersonal communication skills, and apply governmental health care guidelines.

### POFM 2310 – Intermediate Medical Coding (WECM)

- 1. Analyze case studies.
- 2. Apply codes to Evaluation and Management (E/M) and Medical/Surgical cases.
- 3. Identify the major components of managed health care and third-party reimbursement issues.

# POFM 2380 – Cooperative Education – Medical Administrative/Executive Assistant and Medical Secretary (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

# **POFT**

## POFT 1319 – Records and Information Management I (WECM)

- 1. Identify the stages in the life cycle of a record.
- 2. File and retrieve records using filing systems.
- 3. Differentiate between manual and electronic filing.

#### POFT 1325 - Business Math Using Technology (WECM)

1. Solve business math application problems using technology.

#### POFT 1329 – Beginning Keyboarding (WECM)

- 1. Demonstrate keyboarding techniques.
- 2. Apply proofreading and editing skills
- 3. Create basic business documents.

# POFT 2380 – Cooperative Education – Administrative Assistant and Secretarial Science (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Develop processes for office procedures. (Faculty Defined)
- 4. Identify the causes and effects of stress in the workplace. (Faculty Defined)
- 5. Apply basic and advanced formatting skills and special functions to produce documents. (Faculty Defined)
- 6. Apply writing applications in business correspondence. (Faculty Defined)

### **PSYC**

### PSYC 1300 - Learning Framework (ACGM /Faculty Defined)

- Describe the research and theory in the psychology of learning, cognition, and motivation.
- 2. Identify learning styles and analyze various factors that impact learning.
- 3. Describe different perspectives of learning and adapt to different learning environments.
- 4. Demonstrate integration of basic study skills, critical thinking skills, and communication skills.
- 5. Identify and use college resources.

# PSYC 2301 – General Psychology (ACGM)

- 1. Identify various research methods and their characteristics used in the scientific study of psychology.
- 2. Describe the historical influences and early schools of thought that shaped the field of psychology.
- 3. Describe some of the prominent perspectives and approaches used in the study of psychology.
- 4. Use terminology unique to the study of psychology.
- 5. Describe accepted approaches and standards in psychological assessment and evaluation.
- 6. Identify factors in physiological and psychological processes involved in human behavior.

#### PSYC 2306 – Human Sexuality (ACGM)

- 1. Identify common myths of human sexual functioning.
- 2. Identify human sexual behaviors and sexual responses.
- 3. Explain the relationship between sexuality and developmental changes throughout the lifespan.
- 4. Describe the causes, symptoms, and treatments for sexually transmitted infections and the behaviors that increase and decrease the risk of contracting an STI.
- 5. Describe the principles of effective communication and the specific barriers to effective communication about sex and sexuality.
- 6. Use an academic sexual vocabulary.
- 7. Discuss cultural differences in sexual attitudes and behaviors.
- 8. Identify the occurrence and causes of sexual variations.
- 9. Identify contraceptive methods and how these methods prevent conception.

#### PSYC 2308 – Child Psychology (ACGM)

- 1. Describe how human beings change physically, cognitively, socially and emotionally from conception through childhood.
- 2. Identify fundamental concepts and theories, both recent and historical, within the field of child psychology.
- 3. Evaluate research issues and methodologies used to investigate developmental phenomena.
- 4. Describe the process of development and the multiple sources of influence on a developing child.

# PSYC 2314 - Lifespan Growth and Development (ACGM)

- 1. Describe the stages of the developing person at different periods of the life span from birth to death.
- 2. Discuss the social, political, economic, and cultural forces that affect the development process of the individual.
- 3. Identify factors of responsible personal behavior with regard to issues such as sexual activity, substance abuse, marriage and parenting.
- 4. Explain the biosocial, cognitive and psychological influences throughout the lifespan as an ongoing set of processes, involving both continuity and change.
- 5. Describe the different developmental perspectives of the major theories of development (i.e. cognitive, learning, humanistic and psychodynamic).
- 6. Identify examples of some of the cultural and ethnic differences that influence development throughout the lifespan.
- 7. Discuss the various causes or reasons for disturbances in the developmental process.

# PSYC 2316 – Psychology of Personality (ACGM/ Faculty Defined)

- 1. Describe and distinguish among the major theoretical approaches to understanding personality both historical and contemporary.
- 2. Define personality and discuss applications of the various personality theories.
- 3. Demonstrate and appreciate the value of a scientific psychological understanding of personality to society.
- 4. Students will demonstrate cultural self-awareness, intercultural competency, civic knowledge, and the ability to engage effectively in regional, national and global communities.

### PSYC 2317 – Statistical Methods in Psychology (ACGM)

- 1. Compute and interpret empirical and theoretical probabilities.
- 2. Define and explain the characteristics of data based on their reliability, validity, and scales of measurement.

- 3. Interpret visual representations of data, such as graphs and tables.
- 4. Compute and interpret descriptive statistics, such as mean, median, and mode; standard deviation and range; and transformed scores.
- 5. Compute and interpret inferential statistics and tests, such as z test, t test, ANOVA, and Chi-Square.
- 6. Calculate, evaluate, and interpret simple linear correlation/regression.
- 7. Construct and interpret confidence intervals.
- 8. Examine, analyze, and compare various sampling distributions.
- 9. Formulate, perform, and interpret hypotheses tests.
- 10. Identify the appropriate statistical analyses for given research problems, questions, hypotheses, and data sets.
- 11. Apply statistical knowledge to the interpretation of psychological research.
- 12. Explain features and purpose of statistical software packages.

# PSYC 2319 – Social Psychology (ACGM)

- 1. Define social psychology and related terminology.
- 2. Discuss the relationship between the person and the situation and its influence on attitudes, prejudice, aggression, prosocial behavior, and interpersonal relationships.
- 3. Describe the dynamics of group behavior in areas of social influence, such as altruism, conformity, obedience, deindividuation, leadership, intergroup relations, and conflict and cooperation.
- 4. Identify and evaluate the current and historical research, and research methods of social psychology, including ethical considerations.
- 5. Apply social psychological principles to real-world issues.

## PSYC 2320 – Abnormal Psychology (ACGM)

- 1. Discuss the historical antecedents to modern understandings of abnormal behavior.
- 2. Identify and describe the major classes and characteristics of psychological disorders as presented in the Diagnostic and Statistical Manual (DSM).
- 3. Describe the factors and theoretical perspectives related to the development and maintenance of different types of abnormal behavior.
- 4. List the primary treatments for psychological disorders and discuss their effectiveness.
- 5. Discuss the current research and methodological issues in the study of abnormal behavior.
- 6. Discuss the legal and ethical issues associated with the treatment of and research related to abnormal behavior.
- 7. Develop an understanding of how social and cultural factors impact the expression of psychological disorders.
- 8. Examine the impact of biological factors on the development of psychological disorders.

#### PSYC 2330 – Biological Psychology (ACGM)

- 1. Define and explain the biological foundations of behavior, including theories, history, and research methods.
- 2. Describe the evolution and development of the nervous system neuroanatomy, neurophysiology, neurotransmission, and neuroendocrinology.
- 3. Identify the structures and function that underlie sensation, perception, and motor control.
- 4. Identify and discuss the regulation of behavior, including motivation and emotion, sexual behavior, and biological rhythms.

- 5. Articulate the biological components of learning, memory, and language.
- 6. Describe the biological underpinnings of age-related changes in cognition and socioemotional functioning over the lifespan.
- 7. Examine how biological processes impact health and well-being.

### **RADR**

# RADR 1166 – Practicum (or Field Experience) – Radiologic Technology/Science – Radiographer (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Radiologic Technology students will be able to identify anatomy demonstrated on radiographic images of the Chest and the Upper Extremities. (Faculty Defined)
- 4. Radiologic Technology students will be able to perform procedures of the Chest and Upper Extremities and demonstrate knowledge for the protocol for the procedures. (Faculty Defined)
- 5. Radiologic Technology students will be able to manipulate general radiographic equipment. (Faculty Defined)
- 6. Radiologic Technology will be able to utilize basic care procedures and demonstrate proper patient transportation. (*Faculty Defined*)
- 7. Radiologic Technology students will be able describe and use the basic criteria for radiation protection for self and patient. (*Faculty Defined*)
- 8. Radiologic Technology students will be able to analyze and critique radiographic images of the Chest and Upper Extremities and if necessary, make adjustments to produce a satisfactory radiographic image. (*Faculty Defined*)

# RADR 1167 – Practicum (or Field Experience) – Radiologic Technology/Science – Radiographer (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Radiologic Technology students will be able to identify anatomy demonstrated on radiographic images of the Lower Extremities and Abdomen. (Faculty Defined)
- 4. Radiologic Technology students will be able to perform procedures of the Lower Extremities and Abdomen and demonstrate knowledge for the protocol for the procedures. (Faculty Defined)
- 5. Radiologic Technology students will be able to describe and use the basic criteria for radiation protection for self and patient. (Faculty Defined)

 Radiologic Technology students will be able to analyze and critique radiographic images of the Lower Extremities and Abdomen and if necessary make adjustments to produce a satisfactory radiographic image. (Faculty Defined)

#### RADR 1213 – Principles of Radiographic Imaging I (WECM/Faculty Defined)

- 1. Apply the basic principles of radiographic image acquisition to image quality.
- 2. Analyze the effects of exposure variables upon each image quality.
- 3. To provide the student with basic factors of density and contrast. (Faculty Defined)
- 4. To demonstrate techniques necessary to produce good diagnostic radiographs. (Faculty Defined)
- 5. To introduce the x-ray tube and its functions. (Faculty Defined)
- 6. To discuss principles of x-ray generation. (Faculty Defined)
- 7. To compare film compositions and speeds and to include the basic process of the formation of the latent image. (Faculty Defined)
- 8. To introduce the basic radiographic factors. (Faculty Defined)
- 9. Differentiate between cassette-based systems and cassette-less systems, direct and indirect image capture in digital radiography. (Faculty Defined)
- 10. Formulate radiographic techniques and exposure differences for various digital and film screen imaging systems and compare the relationship to patient dose. (Faculty Defined)
- 11. Demonstrate the formulations of radiographic exposure factors, and make appropriate changes. (Faculty Defined)
- 12. Explain what a PACS (picture archiving and communication system) is and how it is used. (Faculty Defined)
- 13. Describe the data flow for a digital imaging and communications in medicine (DICOM) image from an imaging modality to a PACS. (Faculty Defined)
- 14. Analyze images for optimum quality and list those factors, which affect that quality. (Faculty Defined)
- 15. Discuss how each prime factor will affect the radiographic. (Faculty Defined)
- 16. List and discuss the different types of x-ray equipment. (Faculty Defined)
- 17. Describe the parts and function of the X-ray tube. (Faculty Defined)
- 18. Describe how x-ray are produced. (Faculty Defined)

# RADR 1267 – Practicum (or Field Experience) – Radiologic Technology/Science – Radiographer (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Radiologic Technology students will be able to identify anatomy demonstrated on radiographic images of the Cervical Spine and Head. (*Faculty Defined*)
- 4. Radiologic Technology students will be able to perform procedures of the Cervical Spine and Head and demonstrate knowledge for the protocol for the procedures. (*Faculty Defined*)
- 5. Radiologic Technology students will be able describe and use the basic criteria for radiation protection for self and patient. (*Faculty Defined*)

6. Radiologic Technology students will be able to analyze and critique radiographic images of the Cervical Spine and Head and if necessary, make adjustments to produce a satisfactory radiographic image. (Faculty Defined)

#### RADR 1309 – Introduction to Radiography and Patient Care (WECM)

- 1. Define basic medical terms.
- 2. Identify ethical and legal standards.
- 3. Explain basic radiation protection practices.
- 4. Assess patient condition.
- 5. Describe infection control procedures.
- 6. Recognize and respond to emergency situations.
- 7. Identify relevant pharmaceuticals and their applications.
- 8. Describe basic medical equipment operations.

# RADR 1411 – Basic Radiographic Procedures (WECM)

- 1. Define radiographic positioning terms.
- 2. Manipulate equipment.
- 3. Perform basic level procedures in positioning.
- 4. Align anatomic structures and equipment.
- 5. Evaluate images.

# RADR 2166 – Practicum (or Field Experience) – Radiologic Technology/Science – Radiographer (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Radiologic Technology students will be able to identify anatomy demonstrated on radiographic images of the Lumbar Spine Pelvis and Hip. (Faculty Defined)
- 4. Radiologic Technology students will be able to perform procedures of the Lumbar Spine Pelvis and Hip demonstrate knowledge for the protocol for the procedures. (Faculty Defined)
- 5. Radiologic Technology students will be able describe and use the basic criteria for radiation protection for self and patient. (Faculty Defined)
- 6. Radiologic Technology students will be able to analyze and critique radiographic images of the Lumbar spine, Pelvis and Hip and if necessary, make adjustments to produce a satisfactory radiographic image. (Faculty Defined)

# RADR 2167 – Practicum (or Field Experience) – Radiologic Technology/Science – Radiographer (WECM/Faculty Defined)

1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.

- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Radiologic Technology students will be able to demonstrate proficiency and accuracy in performing procedures in a surgical setting. (Faculty Defined)
- 4. Radiologic Technology students will be able to perform procedures using a portable x-ray unit. (Faculty Defined)
- 5. Radiologic Technology students will be able describe and use the basic criteria for radiation protection for self and patient. (Faculty Defined)
- 6. The Radiologic Technology student will critique and analyze the images produced and if necessary, make the proper adjustments to produce a satisfactory radiographic image. (Faculty Defined)

## RADR 2233 – Advanced Medical Imaging (WECM/Faculty Defined)

- 1. Describe the various specialized imaging modalities.
- 2. Differentiate between images produced by different modalities and identify the anatomy demonstrated.
- 3. Explain the use of computers in medical imaging. (Faculty Defined)

# RADR 2266 – Practicum (or Field Experience) – Radiologic Technology/Science – Radiographer (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Radiologic Technology students will be able to identify anatomy demonstrated on radiographic images of the Gastrointestinal tract and Urological studies. (*Faculty Defined*)
- 4. Radiologic Technology students will be able to perform procedures of the Gastrointestinal tract and Urological studies and demonstrate knowledge for the protocol for the procedures. (*Faculty Defined*)
- 5. Radiologic Technology students will be able describe and use the basic criteria for radiation protection for self and patient. (*Faculty Defined*)
- 6. Radiologic Technology students will be able to analyze and critique radiographic images of the Gastrointestinal tract and Urological tract and if necessary, make adjustment to produce a satisfactory radiographic image. (Faculty Defined)

#### RADR 2305 - Principles of Radiographic Imaging II (WECM)

- 1. Analyze image quality.
- 2. Utilize procedures for minimizing patient exposure.
- 3. Adapt technical variables to changing conditions.

#### RADR 2309 – Radiographic Imaging Equipment (WECM)

- 1. Differentiate between conventional and digital equipment.
- 2. Explain the physics of x-ray production.
- 3. Describe x-ray circuits.
- 4. Relate conventional and digital equipment components to the imaging process.

### RADR 2313 – Radiation Biology and Protection (WECM)

- 1. Describe the biophysical mechanisms of radiation damage on humans.
- 2. Indicate typical dose ranges for routine radiographic procedures.
- 3. Describe basic methods and instruments for radiation monitoring, detection, and measurement.
- 4. Implement radiation protection practices.

## RADR 2331 - Advanced Radiographic Procedures (WECM/Faculty Defined)

- 1. Perform advanced level procedures in positioning.
- 2. Master the manipulation of equipment.
- 3. Align anatomic structures and equipment.
- 4. Evaluate images. (Faculty Defined)

#### RADR 2335 - Radiologic Technology Seminar (WECM/Faculty Defined)

- Demonstrate entry level proficiency in knowledge, skills, and attitudes necessary for professional employment.
- 2. Articulate the need for lifelong learning.
- 3. Synthesize professional knowledge, skills and attitudes.

# RADR 2367 – Practicum (or Field Experience) – Radiologic Technology/Science – Radiographer (WECM/Faculty Defined)

Special Modality Rotation (MRI, CT, Interventional radiology, Nuclear Medicine, Radiation therapy, Ultrasound, Mammography)

- 1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Radiologic Technology students will be able to demonstrate proper procurement of specific patient history. (*Faculty Defined*)
- 4. Radiologic Technology students will be able to demonstrate appropriate patient care and safety. (Faculty Defined)
- 5. Radiologic Technology students will be able prepare the patient for a standard procedure for the selected modality. (*Faculty Defined*)
- 6. Radiologic Technology student will be able to demonstrate proper equipment room setup for a standard procedure in the selected modality. (Faculty Defined)

# **RBPT**

# RBPT 1300 – Fundamentals of Residential Building Sciences (WECM)

- 1. Discuss the whole house approach to home construction using basic strategies to build energy-efficient, safe, and healthy homes with a variety of materials.
- 2. Explain the movement in different climates of heat, moisture, and air through the building enclosure.

3. Identify methods homeowners and building professionals use to contribute to the construction of resource-efficient, safe, healthy, and comfortable homes while minimizing the impact on the environment.

# **RBTC**

#### RBTC 1343 - Robotics (WECM)

- 1. Identify and discuss safety, installation, and maintenance concepts.
- 2. Describe the various power sources used in robotics.
- 3. Identify the types of robot interface systems.
- 4. Explain and demonstrate programming methods and control devices.
- 5. Demonstrate the types and uses of end effectors.

#### RBTC 1347 – Electro-Mechanical Devices (WECM)

- 1. Install wiring for electro-mechanical applications.
- 2. Analyze transformer applications.
- 3. Troubleshoot related electrical components found in automated systems.

#### RBTC 2345 - Robot Application, Set-up, and Testing (WECM)

- 1. Design and implement a robotic system.
- 2. Troubleshoot and maintain the robotic cell to make it function in an automated environment.
- 3. Apply design techniques to maintain set cycle times on an automated system.

#### **RFAD**

#### READ 0020 - Reading Fundamentals (ACGM/Faculty Defined)

- 1. Locate explicit textual information, draw complex inferences, and describe, analyze, and evaluate the information within and across multiple texts of varying lengths.
- 2. Comprehend and use vocabulary effectively in oral communication, reading, and writing.
- 3. Describe, analyze, and evaluate information within and across a range of texts.
- 4. Identify and analyze the audience, purpose, and message across a variety of texts.
- 5. Describe and apply insights gained from reading a variety of texts.

#### READ 0323 - College Reading (ACGM/Faculty Defined)

- 1. Locate explicit textual information, draw complex inferences, and describe, analyze, and evaluate the information within and across multiple texts of varying lengths.
- 2. Comprehend and use vocabulary effectively in oral communication, reading, and writing.
- 3. Describe, analyze, and evaluate information within and across a range of texts.
- 4. Identify and analyze the audience, purpose, and message across a variety of texts.
- 5. Describe and apply insights gained from reading a variety of texts.

### **RNSG**

#### RNSG 1160 - Clinical - Registered Nursing/Registered Nurse (WECM/Faculty Defined)

 Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulation laws, and interactions within and among political, economic, environmental, social and legal systems associated with the occupation and the business

- industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and business/industry.

#### Provider of Patient-Centered Care

- 1. Identifies clinical reasoning and knowledge based on the associate degree-nursing program of study and evidence-based practice outcomes as a basis for decision making in nursing practice.
- 2. Identify the physical and mental health status, needs, and preferences of culturally, ethnically, and socially diverse patients and their families based upon interpretation of comprehensive health assessment findings compared with evidence-based health data derived from the associate degree-nursing program of study.
- 3. Identify assessment data to identify problems, formulate goals/outcomes, and develop plans of care for patients and their families using information from evidence-based practice in collaboration with patients, their families, and the interdisciplinary health care team.
- 4. Provide safe, compassionate, comprehensive nursing care to patients and their families through a broad array of health care services.
- 5. Implement the plan of care for patients and their families within legal, ethical, and regulatory parameters and in consideration of disease prevention, wellness, and promotion of health lifestyles.
- 6. Evaluate and report patient outcomes and responses to the rapeutic interventions in comparison to benchmarks from evidence-based practice, and plan follow-up nursing care.
- 7. Identify, implement, and evaluate teaching plans for patients and their families to address health promotion, maintenance, and restoration.
- 8. Demonstrate basic nursing skills to provide safe therapeutic nursing interventions to the individual patient and family.
- 9. Use effective communication skills to interact with individual patients and their families.

### Member of Profession

- 1. Function within the nurse's legal scope of practice and in accordance with the policies and procedures of the host facility.
- 2. Assume responsibility and accountability for the quality of nursing care provided to patients and their families.
- 3. Identify activities that promote the development and practice of professional nursing.
- 4. Demonstrate responsibility for continued competence in nursing practice, and develop insight through reflection, self-analysis, self-care, and lifelong learning.

#### Patient Safety Advocate

- 1. Demonstrate knowledge the Texas Nursing Practice Act and the Texas Board of Nursing Rules that emphasize safety, as well as all federal, state, and local government and accreditation organization safety requirements and standards.
- 2. Implement measures to promote quality and a safe environment for patients, self, and others.
- 3. Formulate goals and outcomes using evidence-based data to reduce patient risks.
- 4. Comply with mandatory reporting requirements of the Texas Nursing Practice Act.

#### Member of the Health Care Team

- 1. Identify how nurses coordinate, collaborate, and communicate with patients, their families, and the interdisciplinary health care team to plan, deliver, and evaluate patient-centered care.
- 2. Serve as a health care advocate in monitoring and promoting quality and access to health care for patients and their families.

- 3. Identify patients and their families that could benefit from referral resources that facilitate continuity of care; health promotion, maintenance and restoration, and ensure confidentiality.
- 4. Communicate and collaborate in a timely manner with members of the interdisciplinary health care team to promote and maintain optimal health status of patients and their families.
- 5. Communicate and manage information using technology to support decision making to improve patient care.

#### RNSG 1205 – Nursing Skills I (WECM/Faculty Defined)

- 1. Apply concepts and principles necessary for the performance of basic nursing skills for the adult patient.
- 2. Demonstrate competence/clinical reasoning in the performance of basic nursing procedures and practices.

### **Faculty Defined**

- 1. Using clinical reasoning and knowledge to identify physical variations in client needs, including teaching needs that affect the implementation of various nursing skills.
- 2. Describe the human, information, and material resources required, tools needed, methods used, and steps involved in the implementation of a variety of basic nursing skills.
- 3. In simulated situations, practice nursing skills used to provide client care for a culturally, ethically, and socially diverse patient population.
- 4. Describe the responsibility of the nurse in the implementation of nursing skills including providing safe, compassionate, comprehensive nursing care to patients and their families.
- 5. In simulated situations practice implementing nursing skills to provide quality care and a safe environment for patients, self and others.
- 6. Identify situations where the nurse will need to obtain instruction, supervision or training when implementing nursing skills and practice.
- 7. Practice coordinating, collaborating, and communicating with clients and their families and a simulated health care team performing a variety of basic nursing skills.
- 8. Using case studies and simulated laboratory experiences, practice functioning within the associate degree nurses scope of practice.
- 9. Identify the nurse's responsibility and accountability for providing quality health care to clients and their families while performing a variety of nursing skills.

## RNSG 1215 - Health Assessment (WECM/Faculty Defined)

- 1. Describe the components of a comprehensive nursing health assessment.
- 2. Demonstrate professional nursing roles in a systematic process of health assessment.

#### Faculty Defined

- 1. Describe the equipment needed, methods used and nursing legal standards to follow in order to accurately assess a patient's health and health needs.
- 2. Describe age-related, social, cultural, ethnic and situational variations in data that can be expected to be found when assessing the physical and mental status of a patient.
- 3. In simulated situations, using the first two steps in the nursing process as a clinical reasoning tool, practice focused and comprehensive health assessments and interpret the data collected as nursing diagnoses.
- 4. Describe the basic effective communication techniques used by the nurse; the legal, ethical, and regulatory parameters that govern the nurse when performing health assessments.

- 5. Identify state and national regulations, standards, principles and measures that promote a safe environment for performing health assessments that reduce risks for patients, self and other, and provide quality care for patients.
- 6. Identify situations where the nurse will need to obtain instruction, supervision or training when implementing nursing skills and practice.
- 7. Practice coordinating, collaborating, and communicating with clients and their families and a simulated health care team performing a variety of basic nursing skills.
- 8. Using simulated patient encounters, demonstrate accountability for own actions in the care of the patient by performing a safe, systematic, accurate comprehensive health assessment with documentation within legal parameters.
- 9. Identify the nurse's responsibility and accountability for providing quality health care to clients and their families while performing a comprehensive health assessment.

## RNSG 1301 - Pharmacology (WECM/Faculty Defined)

- 1. Identify the roles and responsibilities of the professional nurse in administering pharmacological agents.
- 2. Explain the safe utilization of medications.

### **Faculty Defined**

- 1. Explain clinical reasoning and knowledge and evidence-based practice outcomes as a basis for decision making in nursing practice.
- 2. Describe age-related, social, cultural, ethnic and situational variations in data that can be expected to be found when assessing the physical and mental status of a patient.
- 3. Explain assessment data to identify problems, formulate goals/outcomes, and develop plans of care for patients and their families using information from evidence-based practice in collaboration with patients, their families, and the interdisciplinary heath care team.
- 4. Describe the basic effective communication techniques used by the nurse; the legal, ethical, and regulatory parameters that govern the nurse when performing pharmacologic interventions and evaluations.
- 5. Explain how the nurse can implement measure to promote quality and a safe environment for clients, self and others, when providing pharmacologic management for a various common health care disorders
- 6. Examine how the nurse formulates goals and outcomes using evidence-based data to reduce safety risks for clients receiving pharmacologic management.
- 7. Explain how the nurse coordinates, collaborates and communicates with clients and their families, and the interdisciplinary team to plan, deliver, and evaluate patient-centered care in relation to pharmacologic management.
- 8. Explain how the nurse functions within the nurse's legal scope of practice an in accordance with the policies and procedures of the employing health care institution or practice setting.
- 9. Describe the nurse's responsibility and accountability for providing quality health care to clients and their families receiving pharmacological interventions.

## RNSG 1307 – Nursing Jurisprudence (WECM)

- 1. Describe the roles of the professional nurse in a variety of health care settings.
- 2. Identify standards of nursing practice.
- 3. Discuss issues concerning professional boundaries.
- 4. Discuss supervisor liability.
- 5. Describe the rights of the nurse in a peer review situation.

- 6. Relate the difference between minor and reportable incidents.
- 7. Discuss other legal and ethical parameters of professional nursing according to the Nursing Practice Act for the State of Texas.

### RNSG 1327 – Transition to Professional Nursing (WECM/Faculty Defined)

- 1. Differentiate between roles of the professional nurse as provider in patient-centered care, patient safety advocate, member of the health care team, and member of the profession and other licensed health care providers in a variety of health care settings.
- 2. Utilize critical thinking skills and a systematic problem solving process in planning comprehensive care for diverse patients and their families.
- 3. Demonstrate skills for safe basic professional nursing care.

### Faculty Defined

- 1. Apply clinical reasoning, knowledge, and evidence-based practice outcomes as a basis of decision making on methods to care for clients with various health care needs including Mental Health.
- 2. Examine how the nurse can provide safe, compassionate, comprehensive care using a broad array of health care services for clients and their families who are experiencing various health care disorders, including Mental Health.
- 3. Explain various ways the nurse coordinates the management of human, information, and material resources to provide quality health care to a group of clients and their families with various health care needs, including Mental Health.
- 4. Demonstrate assessment data to identify problems, formulate goals/outcomes, and develop a plan of care for the clients and their families experiencing various health care disorders, including Mental Health, using information from evidence-based practice in collaboration with clients, their families, and the interdisciplinary team.
- 5. Explain how the nurse can implement measures to promote quality and safe environment for clients, self, and others when caring for a group of clients and families with various health care needs, including Mental Health.
- 6. Examine how the nurse formulates goals and outcomes using evidence-based data to reduce safety risks for clients experiencing various health care disorders and needs, including Mental Health.
- 7. Explain how the nurse can be a health care advocate in monitoring and promoting quality and access to care for clients and their families experiencing various health care disorders, including Mental Health.
- 8. Examine how the nurse can refer clients and their families experiencing various health care needs, including Mental Health to resources that facilitate continuity of care, health promotion, maintenance and restoration; and ensure confidentiality.
- 9. Explain how the nurse coordinates, collaborates, and communicates with clients, their families, and the interdisciplinary health care team to plan, deliver, and evaluate patient-centered care for clients and their families experiencing various health care needs, including Mental Health.
- 10. Examine how the nurse functions within the nurse's legal scope of practice and in accordance with the policies and procedures of the employing health care institution or practice setting when caring for clients and families with various health care needs, including Mental Health.
- 11. Examine the nurse's responsibility and accountability for providing quality health care to clients and families experiencing various health care needs, including Mental Health.

### RNSG 1362 - Clinical - Registered Nursing/Registered Nurse (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulation laws, and interactions within and among political, economic, environmental, social and legal systems associated with the occupation and the business industry.
- Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and business/industry.

### Provider of Patient-Centered Care

- 1. Explains clinical reasoning and knowledge based on the associate degree nursing program of study and evidence-based practice outcomes as a basis for decision making in nursing practice.
- 2. Apply the physical and mental health status, needs, and preferences of culturally, ethnically, and socially diverse patients and their families based upon interpretation of comprehensive health assessment findings compared with evidence-based health data derived from the associate degree nursing program of study.
- 3. Apply assessment data to identify problems, formulate goals/outcomes, and develop plans of care for patients and their families using information from evidence-based practice in collaboration with patients, their families, and their interdisciplinary health care team.
- 4. Provide, safe, compassionate, comprehensive nursing care to patients and their families through a broad array of health care services.
- Develop and Implement the plan of care for patients and their families within legal, ethical, and regulatory parameters and in consideration of disease prevention, wellness, and promotion of health lifestyles.
- 6. Evaluate and report patient outcomes and responses to therapeutic interventions in comparison to benchmarks from evidence-based practice, and plan follow-up nursing care.
- 7. Identify, implement, and evaluate teaching plans for patients and their families to address health promotion, maintenance, and restoration.
- 8. Improve the performance of basic nursing skills along with performing additional skills to provide safe therapeutic nursing interventions to the individual patient and family
- 9. Use effective communication skills to interact with individual patients and their families.

#### Member of Profession

- 1. Function within the nurse's legal scope of practice and in accordance with the policies and procedures of the host facility.
- 2. Assume responsibility and accountability for the quality of nursing care provided to patients and their families.
- 3. Participate in activities that promote the development and practice of professional nursing.
- 4. Demonstrate responsibility for continued competence in nursing practice, and develop insight through reflection, self-analysis, self-care, and lifelong learning.

#### Patient Safety Advocate

- 1. Demonstrate knowledge of the Texas Nursing Practice Act and the Texas Board of Nursing Rules that emphasize safety, as well as all federal, state, and local government and accreditation organization safety requirements and standards.
- 2. Implement measures to promote quality and a safe environment for patients, self, and others.
- 3. Formulate goals and outcomes using evidence-based data to reduce patient risks.
- 4. Comply with mandatory reporting requirements of the Texas Nursing Practice Act.

### Member of the Health Care Team

1. Collaborate, and communicate with patients, their families, and the interdisciplinary health care team to plan, deliver, and evaluate patient-centered care.

- 2. Serve as a health care advocate in monitoring and promoting quality and access to health care for patients and their families.
- 3. Refer patients and their families to resources that facilitate continuity of care; health promotion, maintenance, and restoration; and ensure confidentiality.
- 4. Communicate and collaborate in a timely manner with members of the interdisciplinary health care team to promote and maintain optimal health status of patients and their families. Communicate and manage information using technology to support decision making to improve patient care.

### RNSG 1413 – Foundations for Nursing Practice (WECM/Faculty Defined)

- 1. Describe the roles of the nurse in the delivery of health care.
- 2. Use basic nursing skills.
- 3. Apply basic systematic problem-solving skills using critical thinking for clinical decision-making. *Faculty Defined*
- 1. Apply basic systematic problem-solving skills using critical thinking for clinical decision-making.
- 2. Using clinical reasoning, knowledge, and evidence based practice to identify physical variations in client needs, including teaching needs that affect the implementation of various nursing skills.
- 3. Describe the human, information, and material resources required, tools needed, methods used, and steps involved in implementation of a variety of basic nursing skills for the foundation of nursing practice.
- 4. Describe nursing skills used to provide clients and their families patient-centered care for a culturally, ethnically, and socially diverse patient population.
- 5. Describe the responsibilities of the nurse in the implementation of nursing skills including providing safe, compassionate, comprehensive nursing care to clients and their families.
- 6. Describe how the nurse can implement measures to promote quality and a safe environment for clients, self and others when caring for a group of clients and their families with basic health care needs.
- 7. Recognize situations where the nurse will need to obtain instruction, supervision, or training when implementing skills and practice to reduce safety risks for patients and their families.
- 8. Describe how the nurse coordinating, collaborating, and communicating with clients and their families and a simulated health care team while performing a variety of basic nursing skills.
- 9. Identify how the nurse can be a health care advocate in monitoring and promoting quality and access to care for clients and their families with basic health care disorders.
- 10. Identify how the nurse coordinates, collaborates and communicates with clients and their families, and the interdisciplinary health care team to plan, deliver and evaluate patient- centered care for clients and their families experiencing basic health care needs.
- 11. Discuss the nurse's legal scope of practice and ethical parameters of professional nursing practice including the Nursing Practice Act.
- 12. Discuss the nurse's responsibility and accountability for providing quality health care to clients and their families with basic health care needs.

#### RNSG 1441 – Common Concepts of Adult Health (WECM/Faculty Defined)

- 1. Explain the roles of the professional nurse in caring for adult patients and families.
- 2. Utilize critical thinking skills and a systematic problem-solving process in providing care for adult patients and families with common health needs.

#### Faculty Defined

- 1. Discuss evidenced-based practice outcomes as a basis of decision making on methods to care for clients with various common health disorders.
- 2. Explain how the nurse can provide safe, compassionate, comprehensive nursing care using a broad array of health care services for clients and their families who are experiencing common health care disorders.
- 3. Explain various ways the nurse coordinates the management of human, information, and material resources to provide quality health care to a group of clients and their families with basic health care needs.
- 4. Identify a systematic nursing process using clinical reasoning tools to construct and evaluate an individualized plan of care that includes safe, therapeutic, culturally sensitive, compassionate, evidence-based and educational nursing interventions based on interpretation assessed needs and other pertinent data for the client and family during the with various common health care disorders.
- 5. Explain how the nurse can implement measures to promote quality and a safe environment for clients, self, and others, when caring for a group of clients and families with common health care disorders.
- 6. Examine how the nurse formulates goals and outcomes using evidence-based data to reduce safety risks for clients experiencing common health care disorders.
- 7. Explain how the nurse can be a health care advocate in monitoring and promoting quality and access to care for clients and their families experiencing common health care disorders.
- 8. Explain how the nurse can refer clients and their families experiencing common health care needs to resources that facilitate continuity of care, health promotion, maintenance and restoration; and ensure confidentiality.
- 9. Explain how the nurse coordinates, collaborates, and communicates with clients and their families, and the interdisciplinary team to plan, deliver, and evaluate patient-centered care for clients and their families experiencing common health care disorders.
- 10. Describe how the nurse functions within the nurse's legal scope of practice and in accordance with the policies and procedures of the employing health care institution or practice setting when caring for clients and families with common health care needs.
- 11. Describe the nurse's responsibility and accountability for providing quality health care to clients and families experiencing common health care needs.

#### RNSG 2121 - Professional Nursing: Leadership and Management (WECM/Faculty Defined)

- 1. Analyze the roles of the professional nurse within a health care delivery system.
- 2. Apply principles leadership and management utilizing a systematic problem-solving process and critical thinking skills to plan care for patients and their families.
- 3. Examine the factors impacting nursing and healthcare.

### **Faculty Defined**

- 1. Analyze competencies required to provide care to various groups of clients (I.e. neonatal, pediatric, obstetric, psychiatric, aE6:E9nd medical-surgical.
- 2. Analyze the role of the nurse in formal and informal teaching of a group of clients and various health care team members with an emphasis on the evaluation step of the nursing process.
- 3. Apply principles and concepts of leadership and management to caring for a group of clients and their families, including delegating and supervising other nursing team members.

- 4. Evaluate the effectiveness of therapeutic communication techniques, such as assertiveness, conflict resolution and conveying caring, used with individuals and with groups in the workplace in various roles, especially leadership and/or management roles
- 5. Apply state and national regulations, standards, principles and measures that promote a safe environment, reduce risks and provide quality care for various groups of clients (i.e. self, others, neonatal, pediatric, obstetric, psychiatric, and medical-surgical clients).
- 6. Analyze concepts of leadership and management as they relate to communication with and evaluating staff, coordinating care for a group of clients through delegation and organization and time management.
- 7. Compare and contrast the role of the nurse in various approaches to the delivery and coordination of health care.
- 8. Analyze the responsibility of the nurse to coordinate the care of a group of clients and achieve continuity of care by participating in team care conferences.
- 9. Analyze the various concepts related to employment and the steps in the employment process.
- 10. Analyze the current issues and trends in nursing practice and in health care in general that affect the student nurse in his/her transition to graduate nurse, including employer expectations.
- 11. Apply legal standards and ethical principles that govern leading a nursing team in the provision of care to a group of clients, and evaluate one's own accountability to those standards.
- 12. Develop a plan for continuing education and involvement in professional organizations that will guide the student in maintaining personal professional competency and growth and in contributing to the advancement of nursing after graduation.

### RNSG 2201 – Care of Children and Families (WECM/Faculty Defined)

- 1. Explain the roles of the professional nurse in caring for children and families.
- 2. Utilize critical thinking skills and a systematic problem-solving process for providing care for the child and the family.

#### Faculty Defined

- Incorporate clinical reasoning, knowledge, and evidence-based practice outcomes as a basis of decision making on methods to care for Pediatric clients with various health care disorders/needs.
- 2. Apply how the nurse can provide safe, compassionate, comprehensive care using a broad array of health care services for Pediatric clients and their families who are experiencing various health care disorders.
- 3. Apply various ways the nurse coordinates the management of human, information, and material resources to provide quality health care to Pediatric clients and their families with basic health care needs.
- 4. Demonstrate a systematic nursing process using clinical reasoning tools to construct and evaluate an individualized plan of care that includes safe, therapeutic, culturally sensitive, compassionate, evidence-based and educational nursing interventions based on interpretation assessed needs and other pertinent data for clients and their families with various pediatric health disorders.
- 5. Demonstrate how the nurse can implement measures to promote quality and safe environment for Pediatric clients, self, and others when caring for a group of clients and families with various health care needs.
- 6. Demonstrate how the nurse formulates goals and outcomes using evidence-based data to reduce safety risks for Pediatric clients experiencing various health care disorders and needs.

- 7. Demonstrate how the nurse can be a health care advocate in monitoring and promoting quality and access to care for Pediatric clients and their families experiencing various health care disorders.
- 8. Demonstrate how the nurse can refer Pediatric clients and their families experiencing various health care needs to resources that facilitate continuity of care, health promotion, maintenance and restoration; and ensure confidentiality.
- 9. Demonstrate how the nurse coordinates, collaborates, and communicates with Pediatric clients, their families, and the interdisciplinary health care team to plan, deliver, and evaluate patient-centered care for clients and their families experiencing various health care needs.
- 10. Examine how the nurse functions within the nurse's legal scope of practice and in accordance with the policies and procedures of the employing health care institution or practice setting when caring for Pediatric clients and families with various health care needs.
- 11. Demonstrate the nurse's responsibility and accountability for providing quality health care to Pediatric clients and families experiencing various health care needs.

## RNSG 2208 – Maternal/Newborn Nursing and Women's Health (WECM/Faculty Defined)

- 1. Identify common needs and high-risk changes, which may be experienced by women and the childbearing family.
- 2. Utilize critical thinking and systematic problem-solving for the family during the perinatal period, as well as caring for patients with women's health issues.

### Faculty Defined

- 1. Examine how developmental, physiological, social, cultural and psychological factors affect the needs of clients and their families, including the newborn, during reproductive, perimenopausal or menopausal years.
- 2. Compare and contrast etiologies, risk factors, clinical manifestations, diagnostic tools and medical and nursing management of various common health care disorders found among newborns and women during reproductive, perimenopausal or menopausal years.
- 3. Apply various ways the nurse coordinates the management of human, information, and material resources to provide quality health care to Pediatric clients and their families with basic health care needs.
- 4. Apply a systematic nursing process using clinical reasoning tools to construct and evaluate an individualized plan of care that includes safe, therapeutic, culturally sensitive, compassionate, evidence-based and educational nursing interventions based on interpretation assessed needs and other pertinent data for the client and family during the reproductive, perimenopausal or menopausal years with various common physiological and psychosocial health care problems.
- 5. Demonstrate how the nurse can implement measures to promote quality and safe environment for clients, self, and others when caring for a group of clients and families with various reproductive health care needs.
- 6. Demonstrate how the nurse formulates goals and outcomes using evidence-based data to reduce safety risks for clients and their families experiencing common reproductive health care disorders.
- 7. Demonstrate how the nurse can be a health care advocate in monitoring and promoting quality and access to care for reproductive, perimenopausal or menopausal clients and their families experiencing various health care disorders.
- 8. Demonstrate how the nurse can refer clients and their families with reproductive, perimenopausal or menopausal health care needs to resources that facilitate continuity of care, health promotion, maintenance and restoration; and ensure confidentiality.

- 9. Demonstrate how the nurse communicates with and collaborates with to coordinate all aspects of care for the client and their families during the reproductive, perimenopausal or menopausal years.
- 10. Examine how the nurse functions within the nurse's legal scope of practice and in accordance with the policies and procedures of the employing health care institution or practice setting when caring for reproductive, perimenopausal or menopausal clients and families with various health care needs.
- 11. Demonstrate the nurse's responsibility and accountability for providing quality health care to reproductive, perimenopausal or menopausal clients and families with various health care needs.

### RNSG 2213 – Mental Health Nursing (WECM/Faculty Defined)

- 1. Explain the roles of the professional nurse in caring for patients and families experiencing mental health problems.
- 2. Use therapeutic communication.
- 3. Utilizes critical thinking skills and a systematic problem-solving process for providing care to patients and families experiencing mental health problems.

### **Faculty Defined**

- 1. Explain the use of scientific principles from biological, psychological and social sciences and caring concepts in providing individualized care for clients and families with mental health care needs.
- 2. Explain how the nurse can provide safe, compassionate, comprehensive nursing care using a broad array of health care services for clients and their families who are experiencing common health care disorders.
- 3. Describe the use of therapeutic communication modes and techniques to interacting effectively with the family with mental health care needs.
- 4. Describe a systematic nursing process using a clinical reasoning tool to construct and evaluate an individualized plan of care that includes safe, therapeutic, culturally sensitive, compassionate, evidence-based and educational nursing interventions based on interpretation of assessed needs and other pertinent data for clients and their families with various mental health care needs across the lifespan.
- 5. Explain state and national regulations, standards, principles and measures that promote a safe environment and reduce risks for clients, self and others and provide quality care for clients and families with mental health care needs.
- 6. Explain how the nurse formulates goals and outcomes using evidence-based data to reduce safety risks for mental health clients and their families experiencing common health care disorders.
- 7. Explain others who the nurse communicates with and collaborates with to coordinate all aspects of care for the silent and their families with various mental health care needs.
- 8. Explain issues related to proving and monitoring quality care for the client and their families with mental health care needs in which the nurse serves as a health care advocate.
- Summarize appropriate institutional and/or community resources to assist the client and their families with mental health care needs that facilitate continuity of care, health promotion, maintenance, and restoration.
- 10. Describe legal, regulatory, and ethical standards and principles used to guide the nurse in decision making and demonstrating accountability for his/her own actions to provide safe and skillful nursing care for clients and families with various mental illness health needs.

11. Describe historical, present and future issues and trends that affect mental health nursing care.

### RNSG 2260 - Clinical - Registered Nursing/Registered Nurse (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulation laws, and interactions within and among political, economic, environmental, social and legal systems associated with the occupation and the business industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and business/industry.

#### Provider of Patient-Centered Care

- 1. Explains clinical reasoning and knowledge based on the associate degree nursing program of study and evidence-based practice outcomes as a basis for decision making in nursing practice.
- 2. Apply the physical and mental health status, needs, and preferences of culturally, ethnically, and socially diverse patients and their families based upon interpretation of comprehensive health assessment findings compared with evidence-based health data derived from the associate degree nursing program of study.
- 3. Apply assessment data to identify problems, formulate goals/outcomes, and develop plans of care for patients and their families using information from evidence-based practice in collaboration with patients, their families, and their interdisciplinary health care team.
- 4. Provide, safe, compassionate, comprehensive nursing care to patients and their families through a broad array of health care services.
- 5. Develop and Implement the plan of care for patients and their families within legal, ethical, and regulatory parameters and in consideration of disease prevention, wellness, and promotion of health lifestyles.
- 6. Evaluate and report patient outcomes and responses to the rapeutic interventions in comparison to benchmarks from evidence-based practice, and plan follow-up nursing care.
- 7. Identify, implement, and evaluate teaching plans for patients and their families to address health promotion, maintenance, and restoration.
- 8. Improve the performance of basic nursing skills along with performing additional skills to provide safe therapeutic nursing interventions to the individual patient and family
- 9. Use effective communication skills to interact with individual patients and their families.

### Member of Profession

- 1. Function within the nurse's legal scope of practice and in accordance with the policies and procedures of the host facility.
- 2. Assume responsibility and accountability for the quality of nursing care provided to patients and their families.
- 3. Participate in activities that promote the development and practice of professional nursing.
- 4. Demonstrate responsibility for continued competence in nursing practice, and develop insight through reflection, self-analysis, self-care, and lifelong learning.

# Patient Safety Advocate

- Demonstrate knowledge of the Texas Nursing Practice Act and the Texas Board of Nursing Rules
  that emphasize safety, as well as all federal, state, and local government and accreditation
  organization safety requirements and standards.
- 2. Implement measures to promote quality and a safe environment for patients, self, and others.
- 3. Formulate goals and outcomes using evidence-based data to reduce patient risks.
- 4. Comply with mandatory reporting requirements of the Texas Nursing Practice Act.

#### Member of the Health Care Team

- 1. Collaborate, and communicate with patients, their families, and the interdisciplinary health care team to plan, deliver, and evaluate patient-centered care.
- 2. Serve as a health care advocate in monitoring and promoting quality and access to health care for patients and their families.
- 3. Refer patients and their families to resources that facilitate continuity of care; health promotion, maintenance, and restoration; and ensure confidentiality.
- 4. Communicate and collaborate in a timely manner with members of the interdisciplinary health care team to promote and maintain optimal health status of patients and their families. Communicate and manage information using technology to support decision making to improve patient care.

### RNSG 2263 - Clinical - Registered Nursing/Registered Nurse (WECM/Faculty Defined)

#### Member of the Profession

- 1. Function within the nurse's legal scope of practice and in accordance with the policies and procedures of the employing health care institution or practice setting.
- 2. Assume responsibility and accountability for the quality of nursing care provided to patients and their families.
- 3. Participate in activities that promote the development and practice of professional nursing.
- 4. Demonstrate responsibility for continued competence in nursing practice, and develop insight through reflection, self-analysis, self-care, and lifelong learning.

#### Provider of Patient-Centered Care

- 1. Use clinical reasoning and knowledge based on the associate degree nursing program of study and evidence-based practice outcomes as a basis for decision making in nursing practice.
- 2. Determine the physical and mental health status, needs, and preferences of culturally, ethnically, and socially diverse patients and their families based upon interpretation of comprehensive health assessment findings compared with evidence-based health data derived from the associate degree nursing program of study.
- 3. Analyze assessment data to identify problems, formulate goals/ outcomes, and develop plans of care for patients and their families using information from evidence-based practice in collaboration with patients, their families, and the interdisciplinary health care team.
- 4. Provide safe, compassionate, comprehensive nursing care to patients and their families through a broad array of health care services.
- 5. Implement the plan of care for patients and their families within legal, ethical, and regulatory parameters and in consideration of disease prevention, wellness, and promotion of healthy lifestyles.
- 6. Evaluate and report patient outcomes and responses to therapeutic interventions in comparison to benchmarks from evidence-based practice, and plan follow-up nursing care.
- 7. Develop, implement, and evaluate teaching plans for patients and their families to address health promotion, maintenance, and restoration.
- 8. Coordinate human, information, and materiel resources in providing care for patients and their families.

#### Patient Safety Advocate

- 1. Demonstrate knowledge of the Texas Nursing Practice Act and the Texas Board of Nursing Rules that emphasize safety, as well as all federal, state, and local government and accreditation organization safety requirements and standards.
- 2. Implement measures to promote quality and a safe environment for patients, self, and others.

- 3. Formulate goals and outcomes using evidence-based data to reduce patient risks.
- 4. Obtain instruction, supervision, or training as needed when implementing nursing procedures or practices.
- 5. Comply with mandatory reporting requirements of the Texas Nursing Practice Act.
- 6. Accept and make assignments and delegate tasks that take into consideration patient safety and organizational policy.

## Member of the Health Care Team

- 1. Coordinate, collaborate, and communicate with patients, their families, and the interdisciplinary health care team to plan, deliver, and evaluate patient-centered care.
- 2. Serve as a health care advocate in monitoring and promoting quality and access to health care for patients and their families.
- 3. Refer patients and their families to resources that facilitate continuity of care; health promotion, maintenance and restoration, and ensure confidentiality.
- 4. Communicate and collaborate in a timely manner with members of the interdisciplinary health care team to promote and maintain optimal health status of patients and their families.
- 5. Communicate and manage information using technology to support decision making to improve patient care.
- 6. Assign and/ or delegate nursing care to other members of the health care team based upon an analysis of patient or unit need.
- 7. Supervise nursing care provided by others for whom the nurse is responsible by using evidence-based nursing practice.

## RNSG 2307 - Adaptation to Role of Professional Nurse (WECM)

- 1. Analyze self-practice in relation to the roles of the professional nurse.
- 2. Use critical thinking and a systematic problem-solving process for providing comprehensive care.
- 3. Examine factors impacting nursing and healthcare.
- 4. Analyze behaviors and attitudes of the nurse that facilitate adaptation to a changing environment.

## RNSG 2361 – Clinical Nursing: Preceptor Tool (WECM/Faculty Defined)

### Member of the Profession

- 1. Function within the nurse's legal scope of practice and in accordance with the policies and procedures of the employing health care institution or practice setting.
- 2. Assume responsibility and accountability for the quality of nursing care provided to patients and their families.
- 3. Participate in activities that promote the development and practice of professional nursing.
- 4. Demonstrate responsibility for continued competence in nursing practice, and develop insight through reflection, self-analysis, self-care, and lifelong learning.

# <u>Provider of Patient-Centered Care</u>

- 1. Use clinical reasoning and knowledge based on the associate degree nursing program of study and evidence-based practice outcomes as a basis for decision making in nursing.
- Determine the physical and mental health status, needs, and preferences of culturally, ethnically, and socially diverse patients and their families based upon interpretation of comprehensive health assessment findings compared with evidence-based data derived from the associate degree nursing program of study.

- 3. Analyze assessment data to identify problems, formulate goals/outcomes and develop plans of care for patient and their families using information from evidence-based practice in collaboration with patients, their families, and the interdisciplinary health care team.
- 4. Provide safe, compassionate, comprehensive care to patients and their families through a broad array of health care services.
- 5. Implement the plan of care for patients and their families within legal, ethical, and regulatory parameters and in consideration of disease prevention, wellness, and promotion of healthy lifestyles.
- 6. Evaluate and report patient outcomes and responses to therapeutic interventions in comparison to benchmarks from evidence-based practice, and plan follow-up nursing care.
- 7. Develop, implement, and evaluate teaching plans for patients and their families to address health promotion, maintenance, and restoration.
- 8. Coordinate human, information, and material resources in providing care for patients and their families.

### Patient Safety Advocate

- 1. Demonstrate knowledge of the Texas Nursing Practice Act and the Texas Board of Nursing Rules that emphasize safety, as well as all federal, state, and local government and accreditation organization safety requirements and standards.
- 2. Implement measures to promote quality and a safe environment for patients, self, and others.
- 3. Formulate goals and outcomes using evidence-based data to reduce patient risks.
- 4. Obtain instruction, supervision, or training as needed when implementing nursing procedures of practices.
- 5. Comply with mandatory reporting requirements of the Texas Nursing Practice Act.
- 6. Accept and make arrangements and delegate tasks that take into consideration patient safety and organizational policy.

#### Member of the Health Care Team

- 1. Coordinate, collaborate, and communicate with patients, their families, and the interdisciplinary health care team to plan, deliver, and evaluate patient-centered care.
- 2. Serve as a health care advocate in monitoring and promoting quality and access to health care for patients and their families.
- 3. Refer patients and their families to resources that facilitate continuity of care; health promotion, maintenance, and restoration; and ensure confidentiality.
- 4. Communicate and collaborate in a timely manner with members of the interdisciplinary health care team to promote and maintain optimal health status of patients and their families.
- 5. Communicate and manage information using technology to support decision making to improve patient care.
- 6. Assign and/or delegate nursing care to other members to support decision making to improve patient care.

### RNSG 2362 – Clinical (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulation laws, and interactions within and among political, economic, environmental, social and legal systems associated with the occupation and the business industry.
- Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and business/industry.

### <u>Provider of Patient-Centered Care</u>

- Incorporates clinical reasoning and knowledge based on the associate degree nursing program
  of study and evidence-based practice outcomes as a basis for decision making in nursing
  practice.
- 2. Apply the physical and mental health status, needs, and preferences of culturally, ethnically, and socially diverse patients and their families based upon interpretation of comprehensive health assessment findings compared with evidence-based health data derived from the associate degree nursing program of study.
- 3. Analyze assessment data to identify problems, formulate goals/outcomes, and develop plans of care for patients and their families using information from evidence-based practice in collaboration with patients, their families, and their interdisciplinary health care team.
- 4. Provide safe, compassionate, comprehensive nursing care to patients and their families through a broad array of health care services.
- 5. Develop and Implement the plan of care for patients and their families within legal, ethical, and regulatory parameters and in consideration of disease prevention, wellness, and promotion of health lifestyles.
- 6. Evaluate and report patient outcomes and responses to therapeutic interventions in comparison to benchmarks from evidence-based practice, and plan follow-up nursing care.
- 7. Develop, implement, and evaluate teaching plans for patients and their families to address health promotion, maintenance, and restoration.
- 8. Improve the performance of basic nursing skills along with performing additional skills to provide safe therapeutic nursing interventions to the individual patient and family
- 9. Use effective communication skills to interact with individual patients and their families.

### Member of Profession

- 1. Function within the nurse's legal scope of practice and in accordance with the policies and procedures of the host facility.
- 2. Assume responsibility and accountability for the quality of nursing care provided to patients and their families.
- 3. Participate in activities that promote the development and practice of professional nursing.
- 4. Demonstrate responsibility for continued competence in nursing practice, and develop insight through reflection, self-analysis, self-care, and lifelong learning.

#### Patient Safety Advocate

- 1. Demonstrate knowledge of the Texas Nursing Practice Act and the Texas Board of Nursing Rules that emphasize safety, as well as all federal, state, and local government and accreditation organization safety requirements and standards.
- 2. Implement and evaluate measures to promote quality and a safe environment for patients, self, and others.
- 3. Formulate goals and outcomes using evidence-based data to reduce patient risks.
- 4. Comply with mandatory reporting requirements of the Texas Nursing Practice Act

#### Member of the Health Care Team

- 1. Coordinate, collaborate, and communicate with patients, their families, and the interdisciplinary health care team to plan, deliver, and evaluate patient-centered care.
- 2. Serve as a health care advocate in monitoring and promoting quality and access to health care for patients and their families.
- 3. Refer patients and their families to resources that facilitate continuity of care, health promotion, maintenance and restoration, and ensure confidentiality.

- 4. Communicate and collaborate in a timely manner with members of the interdisciplinary health care team to promote and maintain optimal health status of patients and their families.
- 5. Communicate and manage information using technology to support decision making to improve patient care.

### RNSG 2363 - Clinical (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulation laws, and interactions within and among political, economic, environmental, social and legal systems associated with the occupation and the business industry.
- Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and business/industry.

## Provider of Patient-Centered Care

- 1. Analyze clinical reasoning and knowledge based on the associate degree-nursing program of study and evidence-based outcomes as a basis for decision making in nursing practice.
- 2. Analyze the physical and mental health status, needs, and preferences of culturally, ethnically, and socially diverse patients and their families based upon interpretation of comprehensive health-assessment findings compare with evidence-based practice in collaboration with patients, their families, and the interdisciplinary health care team.
- 3. Analyze assessment data to identify problems, formulate goals/outcomes, and develop plans of care for patients and their families using information from evidence-based practice in collaboration with patients, their families, and the interdisciplinary health care team.
- 4. Provide, safe, compassionate, comprehensive nursing care to patients and their families through a broad array of health care services.
- 5. Develop and Implement the plan of care for patients and their families within legal, ethical, and regulatory parameters and in consideration of disease prevention, wellness, and promotion of healthy lifestyles.
- 6. Evaluate and report patient outcomes and responses to therapeutic interventions in comparison to benchmarks from evidence-based practice, and plan follow-up nursing care.
- 7. Develop, implement, and evaluate teaching plans for patients and their families to address health promotion, maintenance, and restoration.
- 8. Perform nursing skills with competence and confidence to provide safe therapeutic nursing intervention to all clients and their families.
- 9. Use effective communication skills to interact with individual patients and their families.
- 10. Coordinate human, information, and material resources in providing care for patients and their families.

#### Member of Profession

- 1. Function within the nurse's legal scope of practice and in accordance with the policies and procedures of the host facility.
- 2. Assume responsibility and accountability for the quality of nursing care provided to patients and their families.
- 3. Participate in activities that promote the development and practice of professional nursing.
- 4. Demonstrate responsibility for continued competence in nursing practice, and develop insight through reflection, self-analysis, self-care, and lifelong learning.

#### Patient Safety Advocate

- 1. Demonstrate knowledge of the Texas Nursing Practice Act and the Texas Board of Nursing Rules that emphasize safety, as well as all federal, state, and local government and accreditation organizations safety requirements and standards.
- 2. Develop, Implement, and evaluate measures to promote quality and a safe environment for patients, self, and others.
- 3. Formulate goals and outcomes using evidence-based data to reduce patient risks.
- 4. Comply with mandatory reporting requirements of the Texas Nursing Practice Act
- 5. Accept and make assignments and delegate tasks that take into consideration patient safety and organizational policy.

### Member of the Health Care Team

- 1. Coordinate, collaborate, and communicate with patients, their families, and the interdisciplinary health care team to plan, deliver, and evaluate patient-centered care.
- 2. Serve as a health care advocate in monitoring and promoting quality and access to health care for patients and their families.
- 3. Refer patients and their families to resources that facilitate continuity of care, health promotion, maintenance, and restoration; and ensure confidentiality.
- 4. Communicate and collaborate in a timely manner with members of the interdisciplinary health care team to promote and maintain optimal health status of patients and their families.
- 5. Communicate and manage information using technology to support decision making to improve patient care.
- 6. Assign and/or delegate nursing care to other members of the health care team based upon an analysis of patient or unit need.
- 7. Supervise nursing care provided by others for whom the nurse is responsible by using evidence-based nursing practice.

## RNSG 2432 - Enhanced Concepts (WECM/Faculty Defined)

- 1. Utilize critical thinking and a systematic problem-solving process in meeting the health care needs of adult patient/families with multiple body system problems.
- 2. Evaluate care provided in intermediate and acute care settings.

#### Faculty Defined

- 1. Analyze clinical reasoning and knowledge, and evidence-based practice outcomes as a basis of decision making on methods to care for clients with various complex health care disorders.
- 2. Analyze how the nurse can provide safe, compassionate, comprehensive care using a broad array of health care services for clients and their families who are experiencing complex health care disorders.
- 3. Analyze various ways the nurse coordinates the management of human, information, and material resources to provide quality health care to a group of clients and their families with complex health care needs.
- 4. Analyze a systematic nursing process using clinical reasoning tools to construct and evaluate an individualized plan of care that includes safe, therapeutic, culturally sensitive, compassionate, evidence-based and educational nursing interventions based on interpretation assessed needs and other pertinent data for the clients and their families experiencing various complex health care disorders.
- 5. Illustrate how the nurse can implement measures to promote quality and safe environment for clients, self, and others when caring for a group of clients and families with complex health care needs.

- 6. Illustrate how the nurse formulates goals and outcomes using evidence-based data to reduce safety risks for clients experiencing various complex health care disorders and needs.
- 7. Illustrate how the nurse can be a health care advocate in monitoring and promoting quality and access to care for clients and their families experiencing complex health care disorders.
- 8. Demonstrate how the nurse can refer clients and their families experiencing complex health care needs to resources that facilitate continuity of care, health promotion, maintenance and restoration; and ensure confidentiality.
- 9. Analyze how the nurse coordinates, collaborates, and communicates with clients, their families, and the interdisciplinary health care team to plan, deliver, and evaluate patient-centered care for clients and their families experiencing complex health care needs.
- 10. Analyze how the nurse functions within the nurse's legal scope of practice and in accordance with the policies and procedures of the employing health care institution or practice setting when caring for clients and families with complex health care needs.
- 11. Apply the nurse's responsibility and accountability for providing quality health care to clients and families experiencing complex health care needs.

# **RSPT**

## RSPT 1160 – Clinical – Respiratory Care Therapy/Therapist (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving specialized materials, equipment, procedures, regulations, laws and interactions within and among political, economic, environment, and legal systems associated with the particular occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry.
- 3. Demonstrate his/her clinical proficiency in basic skills, professionalism and ability to effectively interact with various individuals in the clinical setting.
- 4. Adequately demonstrate patient assessment skills through inspection, palpation, percussion and auscultation and correlate the results to the patient's pathophysiology.

## RSPT 1161 – Clinical – Respiratory Care Therapy/Therapist (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving specialized materials, equipment, procedures, regulations, laws and interactions within and among political, economic, environment, and legal systems associated with the particular occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry.
- 3. Demonstrate his/her clinical proficiency in basic skills, professionalism and ability to effectively interact with various individuals in the clinical setting.
- 4. Adequately demonstrate patient assessment skills through inspection, palpation, percussion and auscultation and correlate the results to the patient's pathophysiology.

#### RSPT 1240 – Advanced Cardiopulmonary Anatomy and Physiology (WECM/Faculty Defined)

- 1. Explain advanced concepts of cardiopulmonary anatomy and physiology.
- 2. Describe the neurological control of breathing.
- 3. Differentiate ventilation/perfusion concepts to include acid-base balance with classification.
- 4. Summarize principles of gas transport.
- 5. Explain and describe the physical properties of the lung and airway as it relates to pulmonary disease. (Faculty Defined)

- 6. Explain and describe the anatomy and physiology of the renal system and its effect on the cardiopulmonary system. (Faculty Defined)
- 7. Explain and describe the electrophysiology of the cardiac muscle and the hemodynamic of measurement. (Faculty Defined)

### RSPT 1260 – Clinical – Respiratory Care Therapy/Therapist (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving specialized materials, equipment, procedures, regulations, laws and interactions within and among political, economic, environment, and legal systems associated with the particular occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry.
- 3. Demonstrate his/her clinical proficiency with intermediate skills, professionalism and ability to effectively interact with various individuals in the clinical setting. (Faculty Defined)
- 4. Adequately demonstrate patient assessment skills through inspection, palpation, percussion and auscultation and correlate the results to the patient's pathophysiology. (Faculty Defined)
- 5. Correlate assessment data and patients pathophysiology to implement and evaluate a safe and appropriate treatment plan. (Faculty Defined)

## RSPT 1262 - Clinical – Respiratory Care Therapy/Therapist (WECM/Faculty Defined)

Manual Ventilation via ETT applies to endotracheal and tracheostomy tubes

Lists INDICATIONS as per Clinical Practice Guideline (CPG)

Lists CONTRAINDICATIONS as per CPG

Lists HAZARDS / COMPLICATIONS as per CPG

### **ASSESSMENT OF OUTCOME**

- 1. Proper technique applying the device
- 2. Patient response to or compliance with procedure.
- 3. Objectively measured improvement in ventilation and breath sounds.

#### RSPT 1310 – Respiratory Care Procedures I (WECM)

- 1. Utilize data related to patient assessment
- 2. Utilize respiratory care equipment.
- 3. Perform therapeutic procedures including oxygen therapy, humidity and aerosol therapy, lung expansion therapy, bronchial hygiene therapy, and pulse oximetry.
- 4. Recommend modification of therapy.
- 5. Maintain patient records.

#### RSPT 1311 – Respiratory Care Procedures II (WECM)

- 1. Set up equipment.
- 2. Describe concepts of mechanical ventilation
- 3. Perform artificial airway insertion, airway management, manual resuscitation, suctioning, arterial sampling techniques, and blood gas analysis and interpretation
- 4. Troubleshoot equipment.
- 5. Maintain patient records.
- 6. Communicate relevant information to members of the health care team.

#### RSPT 1325 – Respiratory Care Sciences (WECM/Faculty Defined)

1. Apply concepts of mathematics, chemistry, and physics as related to respiratory care.

2. Solve and demonstrate respiratory mathematical concepts. (Faculty Defined)

### RSPT 2135 – Pediatric Advanced Life Support (WECM)

- 1. Describe the principles, techniques, and complications of vascular access, fluid therapy, airway management, ventilation, and supplemental oxygen.
- 2. Interpret cardiac dysrhythmias.
- 3. Analyze trauma situations.
- 4. Explain therapeutic intervention.

## RSPT 2139 – Advanced Cardiac Life Support (WECM)

- 1. Describe the principles, techniques, and complications of intravenous and electrical therapy, airway control, ventilation, and supplemental oxygen.
- 2. Analyze cardiac dysrhythmias.
- 3. Integrate basic life support with advanced cardiovascular life support interventions.
- 4. Summarize airway management principles.

## RSPT 2217 – Respiratory Care Pharmacology – Intermediate (WECM)

- 1. Explain the mode of action, clinical indications, dosages, hazards, and side effects of pulmonary and cardiovascular drugs.
- 2. Calculate drug dosages.
- 3. Select drugs for optimal therapeutic benefits.

### RSPT 2219 – Mechanical Ventilation for the Neonatal/Pediatric Patient (WECM)

- 1. Explain procedures for initiating mechanical ventilation.
- 2. Describe ventilator management strategies.
- 3. Evaluate weaning criteria and determine weaning methods.
- 4. Identify indications, complications, and physiological effects of ventilator support.

### RSPT 2230 – Respiratory Care Examination Preparation (WECM)

1. Recall apply, and analyze concepts and theories in respiratory therapy.

#### RSPT 2231 – Simulations in Respiratory Care (WECM)

1. Utilize clinical simulations to enhance information gathering and decision making skills.

### RSPT 2258 – Respiratory Care Patient Assessment (WECM/Faculty Defined)

- 1. Interpret patient history and physical exam.
- 2. Evaluate lab studies, x-ray, pulmonary function, arterial blood gases, and invasive and noninvasive hemodynamics.
- 3. Recognize abnormal conditions based upon lab and other exams. (Faculty Defined)
- 4. Describe and analyze PFT's , radiographic images, hemodynamic to make and develop a plan. (Faculty Defined)
- 5. Use analytical and critical thinking skills to select appropriate patient care information and make appropriate decision regarding patient care. (*Faculty Defined*)

#### RSPT 2310 – Cardiopulmonary Disease (WECM)

- 1. Analyze the etiology, pathophysiology, clinical manifestations, and management of cardiopulmonary disorders.
- 2. Compare cardiopulmonary disorders.

### RSPT 2314 – Mechanical Ventilation (WECM)

- 1. Describe procedures for mechanical ventilation as related to spontaneous and artificial ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics.
- 2. Explain indications, complications, and physiologic effects/principles of mechanical ventilation.
- 3. Apply initiation, management, and weaning of ventilatory support.

### RSPT 2325 – Cardiopulmonary Diagnostics (WECM)

- 1. Describe the methods, standards, and purpose of performing pulmonary function testing including use of equipment.
- 2. Identify common cardiac dysrhythmias.
- 3. Interpret patient data including physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessment of the pulmonary patient.
- 4. Apply data to evaluate cardiopulmonary disorders.

## RSPT 2355 - Critical Care Monitoring (WECM)

- 1. Describe the principles/techniques involved in critical care monitoring.
- 2. Interpret patient data.
- 3. Apply data to evaluate cardiopulmonary disorders.

### RSPT 2362 - Clinical - Respiratory Care Therapy/Therapist (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving specialized materials, equipment, procedures, regulations, laws and interactions within and among political, economic, environment, and legal systems associated with the particular occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry.
- 3. Demonstrate his/her clinical proficiency with advance skills, professionalism and ability to effectively interact with various individuals in the clinical setting. (Faculty Defined)
- 4. Adequately demonstrate patient assessment skills through inspection, palpation, percussion and auscultation and correlate the results to the patient's pathophysiology. (Faculty Defined)
- 5. Correlate assessment data and patients pathophysiology to implement and evaluate a safe and appropriate treatment plan. (Faculty Defined)
- 6. Compare and contrast the different modes of mechanical ventilation and demonstrate proficiency in ventilating lung models in the laboratory setting. (Faculty Defined)

#### RSPT 2363 – Clinical – Respiratory Care Therapy/Therapist (WECM/Faculty Defined)

- 1. Apply the theory, concepts, and skills involving specialized materials, equipment, procedures, regulations, laws and interactions within and among political, economic, environment, and legal systems associated with the particular occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry.
- 3. Demonstrate his/her clinical proficiency with advance skills, professionalism and ability to effectively interact with various individuals in the clinical setting. (*Faculty Defined*)
- 4. Adequately demonstrate patient assessment skills through inspection, palpation, percussion and auscultation and correlate the results to the patient's pathophysiology. (*Faculty Defined*)
- 5. Correlate assessment data and patients pathophysiology to implement and evaluate a safe and appropriate treatment plan. (*Faculty Defined*)
- 6. Compare and contrast the different modes of mechanical ventilation and demonstrate proficiency in ventilating lung models in the laboratory setting. (*Faculty Defined*)

#### COMPETENCY: Patient Assessment

- 1. Lists INDICATIONS as per Clinical Practice Guideline (CPG)
- 2. Lists CONTRAINDICATIONS as per CPG
- 3. Lists HAZARDS / COMPLICATIONS as per CPG

#### **ASSESSMENT OF NEED**

- 1. FIO2 may be analyzed to check an existing oxygen analyzer with a ventilator circuit
- 2. FIO2 is appropriate for continuous and prolonged monitoring during mechanical support of ventilation, oxygen hoods or tents etc.
- 3. FIO2 may be spot checked during continuous oxygen delivery through air-entrainment systems (e.g., aerosol masks, hoods, tents, t-tubes)

### Clinical 1260

- 1. Low-Flow Oxygen Therapy NASAL CANNULA, simple mask
- 2. Lists INDICATIONS as per Clinical Practice Guideline (CPG (REVERSE SIDE)
- 3. Lists CONTRAINDICATIONS as per CPG (REVERSE SIDE)
- 4. Lists PRECAUTIONS/COMPLICATIONS as per CPG (REVERSE SIDE)

#### **ASSESSMENT OF NEED**

1. Need is determined by measurement of inadequate oxygen tensions and/or saturations, by invasive or noninvasive methods, and/or presence of clinical indicators as previously described.

### RSPT 2453 – Neonatal/Pediatric Cardiopulmonary Care (WECM)

- 1. Describe fetal development and transition to extrauterine life.
- 2. Assess maternal and fetal history.
- 3. Modify therapy to neonatal/pediatric patients.
- 4. Describe the etiology, pathophysiology, clinical manifestations and management of neonatal/pediatric disorders.
- 5. Analyze, interpret and apply patient data in selective patient care settings.

## **SGNL**

#### SGNL 1301 Beginning American Sign Language I (ACGM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

### SGNL 1302 Beginning American Sign Language II (ACGM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

## SOCI

### **SOCI 1301 – Introduction to Sociology (ACGM)**

- 1. Compare and contrast the basic theoretical perspectives of sociology.
- 2. Identify the various methodological approaches to the collection and analysis of data in sociology.
- 3. Describe key concepts in sociology.
- 4. Describe the empirical findings of various subfields of sociology.
- 5. Explain the complex links between individual experiences and broader institutional forces.

#### SOCI 1306 – Social Problems (ACGM)

- 1. Describe how the sociological imagination can be used to explain the emergence and implications of contemporary social problems.
- 2. Explain the nature of social problems from at least one sociological perspective, e.g., critical, functional, interpretive, etc.
- 3. Identify multidimensional aspects of social problems including the global, political, economic, and cultural dimensions of social problems.
- 4. Discuss how solutions to social problems are often contentious due to diverse values in society.
- 5. Describe how the proposed solutions to a social problem, including social policies, may bring rise to other social problems.

### SOCI 2301 – Marriage & the Family (ACGM)

- 1. Demonstrate understanding of the family and marriage as social institutions through theoretical perspectives.
- 2. Examine the diversity and complexity of contemporary families.
- 3. Explore changing cultural attitudes about marriage and alternatives to marriage.
- 4. Critically evaluate such issues as sexuality, partner choice, resolving marital issues, having and raising children, and combining work with family.
- 5. Demonstrate understanding of the relationship between theories and research methods used in the scientific study of marriage and family.
- 6. Describe some of the historical changes and current trends regarding the structural nature of the American family including the role of gender in relationships.
- 7. Identify causes and consequences of relevant problems within contemporary families.

### **SOCI 2319 – Minority Studies (ACGM)**

- 1. Explain how the concept of social inequality pertains to minority group status defined in terms of identities that may include social class, race/ethnicity, gender, sexual orientation, age, disability, or religion.
- 2. Differentiate between important concepts and theories of prejudice and discrimination including the effects of prejudice and discrimination on the everyday lives of minority group members in the context of social institutions.
- 3. Analyze the history of culture, experiences of inequality, and current life opportunities of various minority groups in the United States with contrasting reference to other countries.
- 4. Analyze minority group interactions in the United States focusing on immigration and migration patterns, assimilation processes, and adjustments to American life.

#### SOCI 2326 Social Psychology (ACGM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

### **SOCI 2336 Criminology (ACGM)**

- 1. Define key concepts associated with criminology.
- 2. Identify major criminological theories.
- 3. Describe the major categories of crime.
- 4. Explain the various methodological approaches used to research crime and criminal behavior.
- 5. Describe the components and explain the dynamics of the criminal justice system.

## **SOCW**

#### **SOCW 2361 – Introduction to Social Work (ACGM)**

- 1. Discuss the historical development of social work in the United States.
- 2. Distinguish the profession of social work from other helping professions.
- 3. Identify core values of social work as stated in the National Association of Social Worker (NASW) Code of Ethics.
- 4. Identify the primary roles and functions of social workers (advocate, broker, facilitator, etc.)
- 5. Identify practice settings where social workers function and articulate how these settings influence the roles of social workers.
- 6. Describe the Generalist Intervention Model.
- 7. Describe how the Texas State Board of Social Worker Examiners Code of Conduct guides social work practice.
- 8. Describe how the NASW Code of Ethics guides social work practice.
- 9. Describe social work's goal of advancing human rights and justice.
- 10. Describe social work's obligation to serve diverse populations.
- 11. Articulate the importance of self-care to prevent burnout, compassion fatigue, and secondary trauma.

## SOCW 2362 - Social Welfare: Legislation, Programs, and Services (ACGM)

- 1. Describe characteristics of legislation.
- 2. Differentiate between legislation and policy.
- 3. Explain how legislation influences service delivery and identify current proposed or recently passed state or federal legislation that will influence services.
- 4. Trace the history of major pieces of social welfare legislation, including the political, economic, environmental, and social conditions affecting vulnerable populations that prompted the legislation's development.
- 5. Describe how political ideology and social constructions of vulnerable populations influences the development of social welfare legislation.
- 6. Describe how political ideology and social constructions of vulnerable populations influence societal responses.
- 7. Compare and contrast the residual, versus institutional, view of social welfare.
- 8. Articulate how social workers can actively and ethically engage in the political process to address social justice issues.

## **SOCW 2389 – Academic Cooperative (ACGM)**

- 1. Articulate elements of the social agency's structure.
- 2. Summarize the agency's delivery of services.
- 3. Describe the delivery of services in relation to the agency's mission statement.
- 4. Explain how the agency meets the needs of the populations served.
- 5. Describe how the agency's services support the mission of social work, including diversity, justice, and equity.
- 6. Evaluate the learning experience in the context of professional goals.
- 7. Evaluate the learning experience in the context of personal goals.
- 8. Describe how a social worker enhances/could enhance service delivery within the organization.
- 9. Identify personal and social work values and reflect on value conflicts in the practice setting.

## **SPAN**

### SPAN 1411 – Beginning Spanish I (ACGM)

- 1. Engage in conversations using level-appropriate grammatical structures including narrating events that take place in the present and producing questions and responses on a variety of topics dealing with everyday life.
- 2. Demonstrate understating of level-appropriate spoken Spanish.
- 3. Write simple sentences and organize them into short paragraphs.
- 4. Read and comprehend level-appropriate texts.
- 5. Identify and discuss traditions, customs and values of the Hispanic world.
- 6. Compare and contrast the traditions, customs and values of the Hispanic world with characteristics of their own culture.

### SPAN 1412 – Beginning Spanish I (ACGM)

- 1. Engage in conversations using level-appropriate grammatical structures including narrating events that take place in the past.
- 2. Demonstrate understanding of level-appropriate spoken Spanish produced by Spanish speakers of diverse origins.
- 3. Write simple to moderately complex sentences using level-appropriate grammatical structures and organize them into cohesive paragraphs.
- 4. Read and comprehend level-appropriate authentic texts.
- 5. Identify and discuss traditions, customs and values of the Hispanic world.
- 6. Compare and contrast the traditions, customs and values of the Hispanic word with characteristics of their own culture

#### SPAN 2311 – Intermediate Spanish I (ACGM)

- 1. Demonstrate comprehension of authentic spoken discourse produced by Spanish speakers of diverse origins.
- 2. Produce oral Spanish comprehensible to native speakers using complex grammatical structures to narrate, describe and elicit information.
- 3. Demonstrate increasing comprehension of authentic written texts in a variety of genres.
- 4. Write descriptions and narratives at a low intermediate level using complex grammatical structures.
- 5. Formulate cohesive paragraphs and short/simple essays.
- 6. Describe cultural practices and products of the Spanish-speaking world drawing on authentic materials including literature and the visual arts.

## SPAN 2312 – Intermediate Spanish II (ACGM)

- 1. Summarize authentic spoken discourse produced by Spanish speakers of diverse origins.
- 2. Produce Spanish comprehensible to native speakers using complex grammatical structures to communicate analytical and interpretive information in both impromptu and prepared speech.
- 3. Demonstrate increasing comprehension of authentic written texts in a variety of genres.
- 4. Write evaluations and critiques at a high intermediate level using complex grammatical structures.
- 5. Formulate cohesive paragraphs and essays.
- 6. Interpret cultural practices and products of the Spanish-speaking world drawing on authentic materials including literature and the visual arts.

### SPAN 2313 - Spanish for Native/Heritage Speakers I (ACGM)

- 1. Write dialogues, descriptions and narratives demonstrating:
  - Correct orthography, and punctuation
  - Cohesion between sentences
  - Appropriate register.
- 2. Demonstrate an expanded vocabulary.
- 3. Apply strategies for linking ideas in complex sentences.
- 4. Identify similarities and differences among distinct varieties of Spanish.
- 5. Give oral presentations in a formal register appropriate for professional and academic settings.
- 6. Describe cultural practices and products of the Spanish-speaking world drawing on authentic materials including literature and the visual arts.

## SPAN 2315 - Spanish for Native/Heritage Speakers II (ACGM)

- 1. Write evaluations, explanations and other types of academic writing demonstrating development of rhetorical skills.
- 2. Demonstrate an expanded vocabulary in discourse.
- 3. Apply strategies for linking ideas in complex sentences.
- 4. Identify similarities and differences among distinct varieties of Spanish.
- 5. Give oral presentations in a formal register appropriate for professional and academic settings.
- 6. Interpret cultural practices and products of the Spanish-speaking world drawing on authentic materials including literature and the visual arts.

# **SPCH**

### SPCH 1311 – Introduction to Speech Communication (ACGM)

- 1. Apply the principles of human communication including perception, verbal communication, nonverbal communication, listening, and audience analysis.
- 2. Demonstrate how to establish and maintain relationships through the use of interpersonal communication.
- 3. Apply small group communication skills including problem solving, group roles, leadership styles, and cohesiveness.
- 4. Develop, research, organize, and deliver formal public speeches.
- 5. Recognize how to communicate within diverse environments.

#### SPCH 1315 – Public Speaking (ACGM)

- 1. Demonstrate an understanding of the foundational models of communication.
- 2. Apply elements of audience analysis.
- 3. Demonstrate ethical speaking and listening skills by analyzing presentations for evidence and logic.
- 4. Research, develop and deliver extemporaneous speeches with effective verbal and nonverbal techniques.
- 5. Demonstrate effective usage of technology when researching and/or presenting speeches.
- 6. Identify how culture, ethnicity and gender influence communication.

7. Develop proficiency in presenting a variety of speeches as an individual or group (e.g. narrative, informative or persuasive).

## SPCH 1318 – Interpersonal Communication (ACGM)

- 1. Exhibit understanding of interpersonal theories and principles.
- 2. Demonstrate ability to analyze and critique verbal and nonverbal interactions in mediated and face-to-face contexts.
- 3. Identify perceptual processes as they relate to self and others.
- 4. Demonstrate critical thinking ability by effectively researching, evaluating, and applying communication theories in oral and/or written assignments.
- 5. Demonstrate understanding of the relevance of cross-cultural, co-cultural, gender and age influences on human communication.
- 6. Demonstrate ability to identify, evaluate, and apply conflict styles and conflict management techniques in dyads and/or groups.
- 7. Identify types of and barriers to effective listening.

# SPCH 1321 - Business & Professional Communication (ACGM)

- 1. Demonstrate communication competence and critical thinking through an understanding of the foundational communication models.
- 2. Demonstrate essential public speaking skills in professional presentations.
- 3. Demonstrate written and oral competencies as it relates to employment (including job searches, interviews, interpersonal interaction, conflict management, leadership and performance appraisals.)
- 4. Apply essential dyadic and small group processes as they relate to the workplace.
- 5. Utilize various technologies as they relate to competent communication.
- 6. Demonstrate effective cross-cultural communication.

#### SPCH 2333- Discussion & Small Group (ACGM/Faculty Defined)

- 1. Demonstrate an understanding of the characteristics that make up small group communication.
- 2. Develop critical thinking in first-hand experience working in small group.
- 3. Identify different methods of conflict management within a group.
- 4. Apply the concepts that make up a supportive group (e.g. interdependence, cohesion, groupthink, etc.)
- 5. Demonstrate an understanding of the different types of group roles and effective leadership.
- 6. Effectively participate in a group project to develop and improve your small group communication skills.
- 7. Apply the process of decision-making and problem-solving.

#### SPCH 2335 - Argumentation & Debate (ACGM/Faculty Defined)

1. Learning outcomes/objectives are determined by local occupational need and business and industry trends. Check syllabus for updates on student learning outcomes.

# **SRVY**

### SRVY 2348 – Plane Surveying (WECM)

- 1. Use surveying terminology.
- 2. Display a familiarity with history of land ownership in Texas.
- 3. Use surveying equipment and field books.
- 4. Make surveying calculations.

## **TECA**

## TECA 1354 – Child Growth & Development (ACGM)

- 1. Summarize principles of growth and development.
- 2. Identify typical stages of cognitive, social, physical, language, and emotional development.
- 3. Compare, contrast and apply theories of development in practice. Discuss the impact of developmental processes on educational practices.
- 4. Identify the stages of play development (i.e. from solitary to cooperative) and describe the important role of play in young children's learning and development.
- 5. Demonstrate skills in practical application of developmental principles and theories, observation techniques, assessment, and recognition of growth and development patterns.

# **TECM**

### **TECM 1303 – Technical Calculations (WECM)**

- 1. Solve technical math problems using addition, subtraction, multiplication, and division.
- 2. Convert between whole numbers, fractions, mixed numbers, and decimals.
- 3. Perform calculations involving percents, ratios, and proportions.
- 4. Convert numbers to different units of measurements, including standard and metric.

## **VNSG**

#### VNSG 1119 - Leadership and Professional Development (WECM)

- 1. Describe the role of the licensed vocational nurse in multi-disciplinary settings inclusive of basic principles of leadership and management.
- 2. Discuss the role of professional organizations and regulatory agencies.
- 3. Explain the Texas Board of Nursing Rules and Regulations and the Nurse Practice Act.
- 4. Identify criteria and appropriate resources for continuing education.

# VNSG 1227 – Essentials of Medication Administration (WECM)

- 1. Demonstrate accurate dosage calculation.
- 2. Demonstrate safe medication administration.
- 3. Accurately document medication administration.

#### VNSG 1230 - Maternal-Neonatal Nursing (WECM)

- 1. Discuss human reproduction and fetal development as related to the normal aspects of childbearing.
- 2. Identify common complications of the mother and newborn during prenatal, antenatal, and

- postnatal periods.
- 3. Relate characteristics of the normal newborn and associated nursing interventions to meet identified health care needs utilizing the nursing process.

### VNSG 1234 - Pediatrics (WECM)

- 1. Identify safety principles related to childcare.
- 2. Discuss primary nursing care of the pediatric patient and family during health and disease.
- 3. Apply concepts of growth and development to the care of pediatric patients utilizing the nursing process.

# VNSG 1238 - Mental Illness (WECM)

- 1. Identify common mental illnesses and maladaptive behavior.
- Utilize the nursing process to assist in planning care for the individual with mental illness or maladaptive behavior.
- 3. Discuss trends in the management of the individual requiring psychotherapeutic treatment.

## VNSG 1260 - Clinical - Licensed Practical/Vocational Nurse Training (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

## VNSG 1320 - Anatomy and Physiology for Allied Health (WECM/Faculty Defined)

- 1. Identify the structure of each of the body systems.
- 2. Describe the functions of each body system.
- 3. Discuss the interrelationship of systems in maintaining homeostasis.
- 4. Describe two changes in older adults that make drug action, drug metabolism, and drug elimination different for that of a younger adult. (*Faculty Defined*)

## **VNSG 1323 – Basic Nursing Skills (WECM)**

- 1. Demonstrate safe and competent basic nursing skills.
- 2. Describe how each step of the nursing process relates to nursing care.
- 3. Discuss the implementation of basic nursing skills in a variety of health care settings.

## VNSG 1331 – Pharmacology (WECM)

- 1. Identify properties, effects, and principles of pharmacotherapeutic agents.
- 2. List nursing interventions associated with the various pharmacotherapeutic agents.

#### VNSG 1500 – Nursing in Health and Illness I (WECM)

- 1. Describe the psychosocial, growth and development, and physiological needs of patients across the life span.
- 2. Identify primary health care needs of the patient.
- 3. Identify the basic interventions to support the patient and family during life stages including

death and dying.

## VNSG 1509 – Nursing in Health and Illness II (WECM)

- 1. Compare and contrast normal physiology of body systems to pathologic variations in the patient with medical-surgical health problems.
- 2. Evaluate and treat patients with medical-surgical health problems using the nursing process including nutrition, pharmacological therapy, and principles of safety.

## VNSG 2260 - Clinical - Licensed Practical/Vocational Nurse Training (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- 2. Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Why specific drugs are prescribed as therapy for common health problems. (Faculty Defined)
- 4. How different drugs work to induce their intended responses. (Faculty Defined)
- 5. What critical actions and assessments to perform before and after administering drugs. (*Faculty Defined*)
- 6. What points are most important to teach patients about their drug therapy. (Faculty Defined)
- 7. Identify properties, effects, and principles of Pharmacotherapeutic agents. (Faculty Defined)
- 8. Explain nursing interventions associated with the various Pharmacotherapeutic agents.

#### VNSG 2261 – Clinical - Licensed Practical/Vocational Nurse Training (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

### VNSG 2262 - Clinical - Licensed Practical/Vocational Nurse Training (WECM/Faculty Defined)

- Apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry.
- Demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.
- 3. Accurately administer medications to multiple patients following established protocols under the close supervision of the instructor. (Faculty Defined)
- 4. Monitor and record responses to medications administered to multiple patients accurately and legibly. (Faculty Defined)
- 5. Identify priorities and make judgments concerning basic needs of multiple clients in order to organize care. (Faculty Defined)

### VNSG 2331 – Advanced Nursing Skills (WECM)

- 1. Demonstrate safe and competent advanced nursing skills.
- 2. Implement the steps in the nursing process and describe how each step relates to nursing care.
- 3. Discuss the implementation of advanced nursing skills in a variety of health care settings.

### VNSG 2510 - Nursing in Health and Illness III (WECM)

- 1. Compare and contrast normal physiology of body systems to pathologic variations in the patient with medical-surgical health problems.
- 2. Evaluate and treat patients with medical-surgical health problems using the nursing process including nutrition, pharmacological therapy, and principles of safety.
- 3. Discuss concepts such as mental illness.
- 4. Utilize learned skills and knowledge for transition from student to graduate vocational nurse.

## **WDWK**

## WDWK 1413 – Cabinet Making I (WECM)

- 1. Identify types and components of a cabinet.
- 2. Label types of joints used in cabinet construction.
- 3. Name the standard sizes of the typical kitchen cabinets.
- 4. Label types of cabinet doors.
- 5. Identify hardware used on cabinets.
- 6. List the types of materials used on cabinets and counter tops.
- 7. Draw plans.
- 8. Calculate costs.
- 9. Prepare a bill of materials.
- 10. Demonstrate safe use of hand, portable, and stationary power tools.
- 11. Lay out, cut, and assemble components using proper joints and fastening devices to construct a cabinet.

### **WDLG**

### WLDG 1307 - Introduction to Welding Using Multiple Processes (WECM)

- 5. Demonstrate machine set-up and complete welds and cutting operations.
- 6. Demonstrate basic shop safety.
- 7. Identify types of consumables used in welding processes.
- 8. Identify various welding and cutting practices.
- 9. Demonstrate proper joint preparation techniques.

## WLDG 1313 - Introduction to Introduction to Blue Print Reading for Welders (WECM)

- 1. Define terms and abbreviations.
- 2. Interpret views, lines, dimensions, detailed drawings, and welding symbols.
- 3. Identify structural shapes.
- 4. Demonstrate proper use of measuring devices.
- 5. Calculate dimensions.

### WLDG 1407 - Introduction to Welding Using Multiple Processes (WECM)

- 1. Demonstrate machine set-up and complete welds and cutting operations.
- 2. Demonstrate basic shop safety.
- 3. Identify types of consumables used in welding processes.
- 4. Identify various welding and cutting practices.
- 5. Demonstrate proper joint preparation techniques.

### WLDG 1417 – Introduction to Layout and Fabrication (WECM)

- 1. Interpret welding symbols.
- 2. Utilizing measuring instruments and tools for fabricating projects.
- 3. Define layout and fabrication terminology.
- 4. Identify structural shapes and materials.

### WLDG 1428 - Introduction to Shielded Metal Arc Welding (WECM)

- 1. Select electrodes and amperage settings for various thicknesses of materials in welding and positions.
- 2. Define principles of arc welding.
- 3. Explain electrode classifications.
- 4. Perform small SMAW operations utilizing various positions, electrodes, and joint designs.

### WLDG 1434 - Introduction to Gastungsten Arc Welding (WECM)

- 1. Describe various joint designs.
- 2. Describe safety rules and equipment.
- 3. Describe effects of welding parameters in GTAW.
- 4. Weld various structural materials.

#### WLDG 1435 – Introduction to Pipe Welding (WECM)

- 1. Describe equipment utilized.
- 2. Demonstrate required pipe preparation.
- 3. Perform welds using various positions and electrodes.

### WLDG 2413 - Intermediate Welding Using Multiple Processes (WECM)

- 1. Identify proper safety equipment and tools.
- 2. Select proper welding process for a given application.
- 3. Demonstrate skills using more than one approved welding process.
- 4. Analyze situations and make decisions concerning safety and electrode selections.

#### WLDG 2435 – Advanced Layout and Fabrication (WECM)

- 1. Demonstrate various techniques of fabrication.
- 2. Design welding projects.
- 3. Prepare drawings.
- 4. Produce templates.
- 5. Demonstrate layout offsets.
- 6. Calculate takeoffs.
- 7. Formulate bills of materials.
- 8. Apply mathematical concepts in the construction of projects.