

# Biology, Environmental Studies, Environmental Science, Health, Health Technologies, Nursing, Nutrition Excel Version of same

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De Anza College

Date: 01-14-2024

<b>Bio., Health, Env. Sciences</b>
<b>BIOL - Biology</b>
<b>CSLO</b>
<b>BIOLD006A - Form and Function in the Biological World</b> <ul style="list-style-type: none"><li>Analyze and compare the process of homeostasis as applied to common physiological processes across higher taxonomy.</li><li>Develop observational skills in the context of scientific methodologies.</li><li>Contrast the Linnaen traditional phylogenetic and cladistic processes of taxonomy.</li></ul>
<b>BIOLD06AH - Form and Function in the Biological World - HONORS</b> <ul style="list-style-type: none"><li>Analyze and compare the process of homeostasis as applied to common physiological processes across higher taxonomy.</li><li>Develop observational skills in the context of scientific methodologies.</li><li>Contrast the Linnaen traditional phylogenetic and cladistic processes of taxonomy.</li></ul>
<b>BIOLD006B - Cell and Molecular Biology</b> <ul style="list-style-type: none"><li>Demonstrate the ability to use appropriate molecular biology techniques to answer research questions and to interpret and explain the results.</li></ul>
<b>BIOLD006C - Ecology and Evolution</b> <ul style="list-style-type: none"><li>Design and complete an independent ecological research project.</li></ul>
<b>BIOLD06CH - Ecology and Evolution - HONORS</b> <ul style="list-style-type: none"><li>Design and complete an independent ecological research project.</li></ul>
<b>BIOLD010. - Introductory Biology</b> <ul style="list-style-type: none"><li>Evaluate the correlation of structure and function in plants and animals.</li></ul>
<b>BIOLD010H - Introductory Biology - HONORS</b> <ul style="list-style-type: none"><li>Evaluate the correlation of structure and function in plants and animals.</li></ul>
<b>BIOLD011. - Human Biology</b> <ul style="list-style-type: none"><li>Contrast the forms and functions of selected human organ systems from the molecular/cellular level to homeostasis at the organismal level.</li><li>Use scientific reasoning to evaluate the biological principles underlying current human health dilemmas, such as the causes of disease, use of biotechnologies, management of epidemics and public health, ecological/environmental health, and social health inequities.</li></ul>
<b>BIOLD013. - Marine Biology</b> <ul style="list-style-type: none"><li>Appraise the physical and chemical properties of the ocean and investigate their impact on marine life.</li><li>Compare and contrast the anatomy, behavior, reproduction, and ecology of selected marine invertebrates, vertebrates, plants, and protists.</li><li>Examine marine biology as a branch of the biological sciences and its relation to the scientific field and how the scientific method is used.</li></ul>
<b>BIOLD015. - California Ecology</b> <ul style="list-style-type: none"><li>Evaluate the impact of human behavior on California ecology.</li><li>Evaluate ecological principles using California organisms.</li></ul>
<b>BIOLD026. - Introductory Microbiology</b>

- Evaluate and demonstrate the importance of aseptic techniques when working with microorganisms.
- Compare and contrast the shape, structure, nutritional and environmental requirements of bacteria, viruses, protozoa and fungi.
- Investigate host parasite relationships and assess their positive and negative impact on the participants.

#### **BIOLD040A - Human Anatomy and Physiology**

- Demonstrate the scientific method as employed by health professionals to evaluate real-world problems involving the skin, skeletal, and muscle systems.
- Investigate the roles of molecules, organelles, and cells in the function of skin, skeletal, and muscle tissues.
- Infer the homeostatic reactions of skin, skeletal, and muscle cells and tissues in reaction to external or internal changes in conditions.

#### **BIOLD040B - Human Anatomy and Physiology**

- Apply the structural organization of the the nervous system to how it processes information.
- Appraise the role of the cardiovascular system in maintaining homeostasis.
- Demonstrate the ability to apply basic knowledge regarding the structure and function of the respiratory system to predicting its responses in maintaining homeostasis.

#### **BIOLD040C - Human Anatomy and Physiology**

- Predict the homeostatic responses of the endocrine system to internal and external changes or stimuli.
- Appraise the role of the lymphatic and immune system in the body's defense to disease.
- Summarize and describe the process of nutrient ingestion, digestion, and absorption of nutrients. Trace the fate of absorbed nutrients and describe their metabolic pathways.
- Integrate the structure and function of the kidneys in the regulation of fluid, electrolyte, and pH balance.

#### **BIOLD045. - Introduction to Human Nutrition**

- Demonstrate a coherent understanding of the relationship between diet and the major chronic diseases.
- Evaluate a meal plan or diet for meeting the criteria of a " healthy diet."

#### **BIOLD054G - Applied Human Anatomy and Physiology: Levels of Organization**

- Define the characteristics of life and demonstrate an understanding of how homeostatic mechanisms are important to survival.

#### **BIOLD054H - Applied Human Anatomy and Physiology: Support, Movement, and Integration**

- Distinguish between the functions of the skeletal system and the muscular systems and evaluate the interrelationship of these two systems in producing movement.

#### **BIOLD054I - Applied Human Anatomy and Physiology: Coordination and Transport**

- Apply principles of homeostasis and distinguish between the mechanisms that regulate hormones and cardiovascular function.

#### **BIOLD054J - Applied Human Anatomy and Physiology: Absorption, Excretion, and Reproduction**

- Evaluate the anatomy and general functions of the human digestive system.

#### **BIOLD077. - Special Projects in Biology**

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract.

#### **BIOLD077X - Special Projects in Biology**

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract.

#### **BIOLD077Y - Special Projects in Biology**

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract.

#### **BIOLD086. - Special Projects in Experimental Biology**

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract.

#### **BIOLD086X - Special Projects in Experimental Biology**

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract.

#### **BIOLD086Y - Special Projects in Experimental Biology**

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract.

**BIOLD087. - Special Projects in Biology Education**

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract.

**BIOLD087X - Special Projects in Biology Education**

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract.

**BIOLD087Y - Special Projects in Biology Education**

- Dependent on the nature of the project as determined in sections 3 & 4 of the Special Projects Contract.

**E S - Environmental Studies****CSLO****E SD001. - Introduction to Environmental Studies**

- Examine, analyze, and demonstrate an understanding of the impact associated with human interaction with the environment based on interdisciplinary factors such as worldviews, cultures, politics, history, ethics, laws and regulations, economics, and management principles.
- Demonstrate a coherent understanding of environmental issues, their underlying causes and potential solutions from an interdisciplinary perspective.

**E SD002. - Introduction to Sustainability**

- Analyze an environmental (or societal) issues through the lens of sustainable development theory.
- Analyze the connection between sustainability and food production.

**E SD003. - Imagery of the Environment**

- Analyze how human relationship with nature has changed over time and the resulting impacts.

**E SD004. - Energy, the Environment, and Society**

- Examine the evolution of energy over time and its impact on earth's resources and environmental degradation.
- Demonstrate an understanding of the actions individuals can take to reduce energy consumption, pollution and greenhouse gas emissions.
- Examine and analyze the wide ranging impact of energy on the triple bottom line of sustainability- People Planet and Profit.

**E SD006. - Introduction to Environmental Law**

- Demonstrate the ability to communicate the elements, principles and practices involved with Environmental Law and associated Regulation in the U.S. and California.

**E SD050. - Introduction to Environmental Resource Management and Pollution Prevention**

- Demonstrate the ability to communicate the elements, principles and practices involved with Environmental Resource Management and Pollution Prevention.

**E SD051A - Sustainable Energy Systems**

- Assess basic electromagnetic and electric power concepts and the function of the electric utility industry.
- Demonstrate an understanding of the theories and principles of energy conversion.
- Examine and demonstrate an ability to calculate and analyze the output of sustainable energy systems.
- Analyze, evaluate and report on data obtained from various laboratory related activities.

**E SD051B - Energy Efficient Buildings**

- Assess environmentally responsive building strategies and systems that control indoor environmental conditions while providing human comfort and minimal energy use.
- Demonstrate an understanding of the fundamental scientific principles governing the thermal and luminous behavior of buildings.
- Demonstrate the ability to conduct basic energy math analysis as it relates to the energy demand and load of buildings.

**E SD051C - Building Automation Systems**

- Evaluate energy efficiency savings as a result of building automation systems and control implementation.
- Summarize the terminology, physics and principles of energy management and building control systems.

**E SD056. - Introduction to Environmental Health**

- Demonstrate the ability to communicate the elements, principles and practices utilized in the field of environmental health.

#### E SD058. - Introduction to Green Building

- Assess (apply) the criteria necessary to be successful in the Introduction to Green Building class.
- Investigate and communicate the relationship between the elements and principles of green building design, the economy, sustainability and society.

#### E SD061A - Environmental Resource Management and Pollution Prevention: Air, Water and Land

- Demonstrate the ability to communicate the elements, principles and practices involved with Environmental Resource Management and Pollution Prevention as it specifically relates to our basic air, water and land resources.

#### E SD061B - Environmental Resource Management and Pollution Prevention: Energy, Chemicals and Waste

- Demonstrate the ability to communicate the elements, principles and practices involved with Environmental Resource Management and Pollution Prevention as it specifically relates to 1) our energy and chemical production and use and 2) prevention and management of our solid and hazardous waste.

#### E SD061L - Environmental Resource Management and Pollution Prevention Laboratory

- Demonstrate the ability to effectively utilize environmental sampling, monitoring and assessment devices and equipment and analytical tools to detect and quantify environmental pollutants/contaminants present in air, water and soil, as well as assess the overall quality of those basic environmental resources.

#### E SD062A - Environmental Management Tools: Environmental Management Systems and Environmental Performance Reporting

- Demonstrate the ability to communicate the elements, principles and practices involved with Environmental Management Systems and associated Environmental Performance Reporting.

#### E SD062B - Environmental Management Tools: CEQA and Environmental Impact Reports (EIRs)

- Demonstrate the ability to communicate the elements, principles and practices involved with the "CEQA process" and Environmental Impact Report (EIR) generation and use.

#### E SD062C - Environmental Management Tools: Environmental Site Assessments (ESAs)

- Demonstrate the ability to communicate the elements, principles and practices involved with conducting, reporting and using the results of Environmental Site Assessments (ESAs).

#### E SD062D - Environmental Management Tools: Industrial Ecology and Sustainable Design Principles

- Demonstrate the ability to communicate the elements, principles and practices involved with Industrial Ecology and Sustainable Design.

#### E SD063. - Global Environmental Policy

- Analyze environmental policy at a global level.
- Analyze and communicate global environmental policy implementation with integration of the importance of stakeholders and environmental, social, and economic impacts.

#### E SD064. - Climate Change Mitigation and Adaptation in California

- Demonstrate the ability to communicate the elements, principles and practices involved with climate change mitigation and adaptation in California.

#### E SD069. - Energy Management Within Your Organization

- Assess the criteria necessary to be successful in Energy Reliability.
- Understand the process of continuous improvement in relation to an organization establishing an effective energy management plan.
- Investigate and communicate the relationship between: energy efficiency, ethic justice principles, ecological and biological principles and evaluate the role of energy management in establishing and fostering sustainable society.

#### E SD069A - Introduction to Facilities Management

- Assess the roles and responsibilities of Facility Managers and understand the technical and business skills required in the FM profession.
- Analyze and understand the basics of building systems.
- Understand and demonstrate the cross functional nature of the successful facility manager and be able to identify internal stakeholders and external stakeholders the FM deals with.
- Analyze and demonstrate how to manage and track customer relationships in Facility Management.

#### E SD070. - Introduction to Energy

- Assess (apply) the value and components of a successful energy management program.
- Understand and be able to demonstrate knowledge of energy and energy efficiency principles, energy bills, auditing techniques, simple economic analyses, and energy conservation measures.

#### **E SD071. - Introduction to Sustainable Buildings**

- Examine environmentally responsive building strategies and systems for controlling the indoor environment in order to provide comfort and health while minimizing energy use.
- Understand the fundamental scientific principles governing the thermal environment of buildings.
- Analyze building energy calculations to provide maximum cost reduction, human comfort and worker productivity.

#### **E SD076. - Energy Star Products**

- Assess (apply) the criteria necessary to be successful in the Energy Star Products class.
- Demonstrate through in class assignments and submitted homework assignments, an understanding of the US EPA's Energy Star program principles, rating, and those affected by the program and how the program is implemented nationwide.

#### **E SD076A - Solar Thermal Systems**

- Assess and examine various types of solar thermal systems and their applications.
- Conduct and successfully complete a solar energy site assessment and quantify the amount of solar energy available at a particular site.
- Demonstrate the ability to properly size a residential solar hot water system for domestic hot water applications.

#### **E SD077X - Special Projects in Environmental Studies**

- Demonstrate the ability to communicate work place or field studies principles and practices learned from an Environmental Studies special project experience.

#### **E SD077Y - Special Projects in Environmental Studies**

- Demonstrate the ability to communicate work place or field studies principles and practices learned from an Environmental Studies special project experience.

#### **E SD077Z - Special Projects in Environmental Studies**

- Demonstrate the ability to communicate work place or field studies principles and practices learned from an Environmental Studies special project experience.

#### **E SD078. - Introduction to Energy Management Systems and Controls**

- Assess (apply) the criteria necessary to be successful in the Energy Management Systems and Controls class.
- Demonstrate an understanding of energy efficiency principles, principles of energy management, control system design and a sustainable society utilizing energy management and control systems.

#### **E SD079. - Renewable and Alternative Energy Systems**

- Assess the positive impact renewable energy systems have in regard to Global Climate Change.
- Demonstrate an understanding of the principles of renewable energy generation, economic analysis and a sustainable society utilizing renewable energy generation.

#### **E SD080. - California Field Studies**

- Identify ecosystem protection and policies as they relate to environmental and health effects on various species as well as on individuals, cultures, and society.
- Identify and assess natural communities and watersheds in the California Floristic Province and demonstrate an understanding of the social and environmental parameters that affect these natural communities.

#### **E SD080X - California Field Studies**

- Identify ecosystem protection and policies as they relate to environmental and health effects on various species as well as on individuals, cultures, and society.
- Identify and assess natural communities and watersheds in the California Floristic Province and demonstrate an understanding of the social and environmental parameters that affect these natural communities.

#### **E SD080Y - California Field Studies**

- Identify ecosystem protection and policies as they relate to environmental and health effects on various species as well as on individuals, cultures, and society.
- Identify and assess natural communities and watersheds in the California Floristic Province and demonstrate an understanding of the social and environmental parameters that affect these natural communities.

#### **E SD080Z - California Field Studies**

- Identify ecosystem protection and policies as they relate to environmental and health effects on various species as well as on individuals, cultures, and society.
- Identify and assess natural communities and watersheds in the California Floristic Province and demonstrate an understanding of the social and environmental parameters that affect these natural communities.

#### E SD081. - Leadership in Energy and Environmental Design/Sustainability Codes

- Describe the components of the Building Energy Efficiency Standards (Title 24, Section 6), the Appliance Code (Title 20), and the Green Building Code (Title 24, Part 11), and the building simulation requirements of each.
- Create a building model using a BEMS such as eQUEST, and employ that model to measure and evaluate various energy efficiency and demand response measures.

#### E SD082. - Project Management and Technical Report Writing for Energy Professionals

- Assess the purpose of the energy project leadership, audit report, scope of work, and level of detail required for the report.
- Formulate prioritized recommendations that evaluate energy efficiency measure (EEM) recommendations in terms of energy savings and financial costs/benefits to the client.

#### E SD083. - Energy Management Return on Investment

- Use benchmarking tools to compare the Energy Use Intensity of buildings of similar type and climate, and illustrate typical energy use patterns of specific facility types.
- Determine the cost of various energy efficiency measures, and calculate the value of them using various metrics.

#### E SD084. - Residential Solar Design and Installation

- Analyze buy vs lease solar options and understand incentives and tax breaks.
- Explore OSHA 10 safety regulations and use of tools needed to install residential solar systems safely.

#### E SD085A - California Native Plants and Animals

- Demonstrate ability to identify California native plants and animals for 3 of the 12 California plant communities in the Cheeseman Environmental Studies Area.
- Illustrate ability to lead a group tour in the Cheeseman Environmental Studies Area with adequate identification of plants, animals, biotic and abiotic components of the California plant communities.

#### E SD085B - Environmental Education Interpretive Training

- Research the food webs, California flora and fauna of the 12 California plant communities in the Cheeseman Environmental Studies Area.
- Explain differences in the plant communities within the Cheeseman Environmental Study Area revealing an understanding plant adaptation to varying climates and habitats in California.
- Demonstrate an understanding of native plant restoration of a selected ESA plant community through research and hands on experience of restorations practices including: weeding, mulching, soil tests, signage, planting and pruning.

#### E SD095. - Introduction to Environmental Careers

- Compare, contrast, and identify the various transfer colleges and universities as well as the multitude of career options in environmental studies and sciences, especially as they relate to our three degree/certificate areas.
- Demonstrate the ability to communicate the relationship between values, skills, environmental education, and environmental careers in order to play a role in furthering a sustainable society.

### ESCI - Environmental Science

#### CSLO

##### ESCID001. - Environmental Science

- Utilize the scientific method to demonstrate role of scientist and public to to analyze the consequences of human actions on the physical, biological, and cultural world.

##### ESCID001L - Environmental Science Laboratory

- Assess local open space areas such as major aquatic life zones (coastal wetlands, inland wetlands, and riparian) and terrestrial biomes (grasslands, forests, savannah and transitional areas (ecotones)) and the impacts on these systems by humans, such as human systems including sanitary landfills, sewage treatment facilities and others.

##### ESCID019. - Environmental Biology

- Compare Environmental and ecological principles, concepts, and possible solutions and sustainable practices.

##### ESCID021. - Practices of Environmental Stewardship

- Synthesize solutions to threats to biodiversity.
- Design management plans for open/garden spaces considering stakeholder perspectives.

**ESCID030. - Introduction to Conservation Biology**

- Appraise current national and international conservation issues and explain proximate and ultimate threats to biodiversity.
- Defend the importance of genetic diversity within species as a key conservation tool aiding species' long-term survival.

**ESCID050. - Introduction to Urban Ecology**

- Propose sustainable recommendations for a local community.
- Assess the relation of living organisms with each other and their surroundings in the context of an urban environment.

**ESCID054. - Environmental Analysis**

- Students will be able to analyze data in an environmental scenario.

**ESCID056. - Plant Survey Techniques**

- Students will be able to conduct plant survey techniques.

**ESCID057. - Wildlife Monitoring**

- Communicate results of wildlife monitoring assessment to community.

**ESCID058. - Landscape Linkages for California**

- Research and analyze, in a field setting, wildlife monitoring at a landscape connectivity level, and assess techniques utilized in wildlife science/connectivity studies statewide.

**ESCID060. - Restoration Ecology**

- Utilize the knowledge gained through the understanding of natural systems functions to create a restoration project.

**ESCID077. - Special Projects in Environmental Science**

- Demonstrate the ability to communicate work place or field studies principles and practices learned from an Environmental Science special project experience.

**ESCID077X - Special Projects in Environmental Science**

- Demonstrate the ability to communicate work place or field studies principles and practices learned from an Environmental Science special project experience.

**ESCID077Y - Special Projects in Environmental Science**

- Demonstrate the ability to communicate work place or field studies principles and practices learned from an Environmental Science special project experience.

**HLTH - Health**

**CSLO**

**HLTHD021. - Contemporary Health Concerns**

- Appraise the interrelationship between individual lifestyle choices, societal influence and personal health.

**HLTHD057A - First Aid for the Community, Home, Wilderness, and Disasters**

- Demonstrate life saving skills in care of injuries and sudden illness as specified by the American Red Cross.

**HTEC - Health Technologies**

**CSLO**

**HTECD050. - Introduction to Health Technologies**

- Develop the evolution, desirable characteristics and abilities of various roles of health technologies team members as it relates to the health care team.
- Develop various methods of coping with loss.

**HTECD060A - Basic Medical Terminology**

- Illustrate the word components of medical terminology.

- Develop medical terms as they relate to the body's structure, diseases of the various body systems, medical specialties and medical specialists.
- Demonstrate the interpretation of medical abbreviations.

#### **HTECD060G - Advanced Medical Terminology I**

- Demonstrate the anatomy, physiology, and diseases of the digestive, urinary, female reproductive, male reproductive, nervous, sensory, and integumentary body systems.
- Develop case studies that concern diagnostic, conditions, and diseases of systems and/or medical specialties.

#### **HTECD060H - Advanced Medical Terminology II**

- Demonstrate the anatomy, physiology and diseases of the cardiovascular, respiratory, blood, lymphatic, musculoskeletal and endocrine systems.
- Develop case studies that concern diagnostic conditions and diseases of systems and/or medical specialties.

#### **HTECD061. - Medical Communications**

- Develop the various mechanical formats and guidelines used to prepare a medical history and physical report and design the information which appears in various medical reports.
- Demonstrate words concerned with keyboarding, proofreading and editing of manuscripts and abstracts.

#### **HTECD064A - Clinical Laboratory Procedures I**

- Demonstrate the practice of proper application of OSHA standards during specimen collection.

#### **HTECD064B - Clinical Laboratory Procedures II**

- Identify the proper procedures for the collection of blood by venipuncture and capillary puncture.
- Recognize and address the potential problems encountered during venipuncture that can impact patient care.

#### **HTECD068. - Medical Reception Externship**

- Demonstrate proper medical reception techniques in the clinical environment.
- Illustrate medicolegal principles and codes of ethics that must be considered in the daily operation of the doctors office.

#### **HTECD071. - Medical Office Reception**

- Illustrate skills and knowledge necessary to create, organize and maintain a comfortable, efficient and safe medical office waiting room environment addressing patient needs, ingress/egress, privacy, personal space and ADA requirements.
- Demonstrate correct methodology for taking written telephone messages with accuracy and necessary pertinent information in response to multiple scenarios.

#### **HTECD072. - Medical Office Financial Procedures**

- Illustrate diagnostic and procedural coding in the medical facility.
- Illustrate eligibility, benefits guidelines for health insurance companies.

#### **HTECD073. - Medical Law and Ethics**

- Illustrate medical ethics. Medical practice act, legal relationship of patient and physician, legal responsibilities of the health technology team member, professional liability, physicians civic duties and arbitration.

#### **HTECD074A - Medical Transcription with Editing I**

- Demonstrate knowledge of medical documentation, transcription, and editing skills.

#### **HTECD074B - Medical Transcription with Editing II**

- Demonstrate transcription with speech recognition editing skills necessary for medical office using actual dictation from orthopedics, cardiology, and urology specialties.

#### **HTECD074C - Medical Transcription with Editing III**

- Demonstrate transcription with speech recognition editing skills necessary for the medical office using actual dictation from OB/GYN, endocrinology, and neurology specialties.

#### **HTECD075. - Electronic Health Records**

- Illustrate competence in the implementation of EHR, creating new documentation in an EHR, setting up EHR software using clinical and administrative tools, creation of templates for procedures and diagnosis, and importing of various documents into a patient's charts.

#### **HTECD076A - Advanced Medical Coding I**



- Demonstrate ability to code diagnosis and procedures using ICD-10 and CPT Coding Systems.

#### **HTECD076B - Advanced Medical Coding II**

- Explain the purpose of ICD-10-CM coding systems.

#### **HTECD077. - Special Projects in Health Technology**

- Develop in conjunction with student and instructor.

#### **HTECD077X - Special Projects in Health Technology**

- Develop in conjunction with student and instructor.

#### **HTECD077Y - Special Projects in Health Technology**

- Develop in conjunction with student and instructor.

#### **HTECD080. - Clinical Hematology Laboratory**

- Practice proper application of OSHA standards as pertains to the clinical hematology laboratory.
- Use proper technique and follow written laboratory procedures to perform Complete Blood Count (CBC) with differential and platelet estimate on a minimum of 2 normal blood samples.
- Identify abnormal CBC results and correlate to possible causes.

#### **HTECD080A - Clinical Hematology Lecture**

- Identify the hematological disorder displayed by the patient given patient history information and laboratory results.

#### **HTECD081. - Clinical Urinalysis Laboratory**

- Practice proper application of OSHA standards appropriate for the clinical urinalysis laboratory.
- Perform routine urinalysis on a minimum of 2 normal urine samples with 100% accuracy to include both physical and chemical analysis.
- Identify abnormal urinalysis results and correlate these results with possible causes.

#### **HTECD081A - Clinical Urinalysis Lecture**

- Identify the parts of a kidney diagram, trace the path of blood flow and urine formation to include reabsorption and secretion.

#### **HTECD082. - Clinical Coagulation Laboratory**

- Practice proper application of OSHA standards appropriate for the coagulation laboratory.
- Analyze blood samples for Protime (PT) and Activated Partial Thromboplastin Time (APTT) following proper techniques and procedures.
- Identify abnormal PT and APTT results and correlate to possible causes.

#### **HTECD082A - Clinical Coagulation Lecture**

- Evaluate laboratory data to distinguish between primary and secondary hemostasis disorders and defend your response.

#### **HTECD083. - Clinical Microbiology Laboratory**

- Practice proper application of OSHA standards as pertains to the clinical microbiology laboratory.
- Distinguish between normal flora and pathogenic bacteria for selected body sites.
- Correlate organisms clinical significance to specimen site.

#### **HTECD083A - Clinical Microbiology Lecture**

- Given patient history information, specimen source and laboratory results including biochemical profile, media used, gram stain, and other selected identification results identify the microorganism isolated from the patient.

#### **HTECD084. - Clinical Immunology/Immunohematology Laboratory**

- Practice proper application of OSHA standards as appropriate for the immunology/immunohematology laboratory.
- Use proper technique and follow written laboratory procedures to perform all testing necessary to find a mock patient a compatible unit of blood.

#### **HTECD084A - Clinical Immunology/Immunohematology Lecture**

- Correlate clinical significance of serologic test results with possible disease states.
- Evaluate test results and correlate with possible disease states when given patient history and immunohematology laboratory results..

**HTECD085A - Clinical Chemistry I Laboratory**

- Practice proper application of OSHA standards as appropriate in the chemistry laboratory.
- Use proper techniques to perform serial dilution.
- Using a spectrophotometer and proper techniques, dilute a given standard to establish a calibration curve. Analyze and determine the concentration of an unknown sample using the curve.

**HTECD085B - Clinical Chemistry II Laboratory**

- Practice proper application of OSHA standards as appropriate in a clinical chemistry laboratory.
- Use troubleshooting skills to identify potential errors in laboratory testing.

**HTECD085C - Clinical Chemistry I Lecture**

- Identify sources of error in clinical laboratory testing and classify them as pre-analytical, analytical and post-analytical.

**HTECD085D - Clinical Chemistry II Lecture**

- Identify normal and abnormal patient laboratory results and correlate these results with possible disease states.

**HTECD090G - Basic Patient Care**

- Demonstrate the regulation and measurement of vital signs.

**HTECD090H - Medical Office Sterile Technique**

- Demonstrate the application of sterile gloves, sterilization of instruments that are used in minor surgery.

**HTECD091. - Medical Office Diagnostic Tests**

- Illustrate common terms used in electrocardiography, physical therapy and radiology procedures.
- Illustrate the structure and electrical conduction system of the heart.
- Demonstrate measuring and assessing heart rhythms using an electrocardiograph including analyzing normal and abnormal electrocardiograms.

**HTECD093. - Pharmacology for Medical Assistants**

- Demonstrate dosage calculation, define drug legislation and standards, compare and contrast drug preparations, and identify classification of major drugs affecting various systems and indications and side effects of the drugs.

**HTECD094. - Administration of Medications**

- Illustrate pertinent anatomy and physiology and choice of equipment for injections.
- Demonstrate proper techniques, hazards and complications, post-treatment and test patient of a minimum of 10 intramuscular, 10 subcutaneous and 10 intradermal injections.

**HTECD095A - Medical Assisting Externship**

- Demonstrate proper Medical Assisting techniques in the clinical environment.

**HTECD095B - Phlebotomy Technician I Externship**

- Describe the proper application of OSHA standards.
- Recognize and respond to potential problems encountered during venipuncture that can impact patient care.
- Describe proper procedures for the collection of blood by venipuncture and skin puncture.

**HTECD096A - Medical Assisting Externship**

- Demonstrate proper Medical Assisting administrative and clinical skills in the medical environment.
- Illustrate medicolegal principles and codes of ethics that must be considered in the daily operation of the clinical facilities.

**HTECD096C - Medical File Clerk Externship**

- Demonstrate proper Medical File Clerk techniques in the clinical environment.
- Illustrate medicolegal principles and codes of ethics that must be considered in the daily operation of the clinical facilities.

**HTECD096D - Medical Record Clerk Externship**

- Demonstrate proper Medical Record Clerk techniques in the clinical environment.
- Illustrate medicolegal principles and codes of ethics that must be considered in the daily operation of the clinical facilities.

**HTECD096E - Business Office Clerk Externship**

- Demonstrate proper Business Office Clerk techniques in the clinical environment.
- Illustrate medicolegal principles and codes of ethics that must be considered in the daily operation of the clinical facilities.

**HTECD096F - Insurance and Coding Externship**

- Use proper Insurance and Coding techniques in the clinical environment.
- Illustrate medicolegal principles and codes of ethics that must be considered in the daily operation of the clinical facilities.

**HTECD096G - Medical Transcription Externship**

- Demonstrate proper Medical Transcription techniques in the clinical environment.
- Illustrate medicolegal principles and codes of ethics that must be considered in the daily operation of the clinical facilities.

**HTECD096H - EKG Externship**

- Demonstrate proper EKG techniques in the clinical environment.
- Illustrate medicolegal principles and codes of ethics that must be considered in the daily operation of the clinical facilities.

**HTECD101A - Skill Building in Clinical Laboratory Procedures II**

- Consistently apply the OSHA Bloodborne Pathogen Standard during the collection of blood specimens.
- Demonstrate the proper procedures for the collection of blood by venipuncture and capillary puncture.

**HTECD101B - Skill Building in Basic Patient Care**

- Demonstrate vital signs and various procedures performed in the medical office.

**HTECD101C - Skill Building in Medical Communications**

- Demonstrate a level of competence in the skills learned in Medical Communications and in preparation for Medical Transcription.

**HTECD101D - Skill Building in Medical Office Financial Procedures**

- Demonstrate billing and collection procedures and the various steps in preparing insurance claim forms.
- Illustrate the ICD-10 and CPT codes used in medical office.

**HTECD101E - Skill Building in Medical Office Sterile Technique**

- Demonstrate the proper techniques in wrapping instruments and in sterile tray set up.

**HTECD101F - Skill Building in Medical Office Diagnostic Tests**

- Demonstrate measuring and assessing heart rhythms using an electrocardiograph including analyzing normal and abnormal electrocardiograms.

**HTECD101H - Skill Building in Medical Transcription and Editing I**

- Demonstrate knowledge of medical documentation, transcription, and editing skills.

**HTECD101J - Skill Building in Medical Transcription and Editing II**

- Demonstrate knowledge of medical documentation, transcription, and editing skills.

**HTECD101K - Skill Building in Medical Transcription and Editing III**

- Demonstrate knowledge of medical documentation, transcription, and editing skills.

**HTECD101L - Intermediate Skill Building in Clinical Laboratory Procedures II**

- Demonstration of knowledge of the proper collection and handling of blood specimens while speed and accuracy is increased.

**HTECD101M - Advanced Skill Building in Clinical Laboratory Procedures II**

- Demonstration of knowledge of the proper collection and handling of blood specimens while speed and accuracy is increased.

**HTECD110. - Health Technologies Employment Preparation**

- Demonstrate the medical assistant skills in preparation to complete a successful externship and to pass the state and national examinations.

**HTECD180. - Clinical Hematology/Urinalysis/Coagulation Practicum**

- Perform analytical procedures safely and accurately in Clinical Hematology/Urinalysis/Coagulation departments identifying normal and

abnormal lab tests and factors affecting results and take appropriate action.

#### **HTECD183. - Clinical Microbiology Practicum**

- Perform analytical procedures safely and accurately in Clinical Microbiology identifying normal and abnormal lab tests and factors affecting results and take appropriate action.

#### **HTECD184. - Clinical Immunology/Immunochemistry Practicum**

- Safely and accurately perform analytical procedures in Clinical Immunology/ Immunochemistry identifying normal and abnormal lab tests and factors affecting results and take appropriate action.

#### **HTECD185. - Clinical Chemistry Practicum**

- Safely and accurately perform analytical procedures in Clinical Chemistry department identifying normal and abnormal lab tests and factors affecting results and taking appropriate action.

### **NURS - Nursing**

#### **CSLO**

#### **NURSD050. - Career Opportunities in Nursing**

- Demonstrate a basic understanding of nursing, nursing education programs, professional/legal/ethical issues common to nursing, and to the health care delivery systems in the US.

#### **NURSD077. - Special Projects in Nursing**

- Achieve a score of 80% or better on sample NCLEX examinations.

#### **NURSD077X - Special Projects in Nursing**

- Achieve a score of 80% or better on sample NCLEX examinations.

#### **NURSD077Y - Special Projects in Nursing**

- Achieve a score of 80% or better on sample NCLEX examinations.

#### **NURSD077Z - Special Projects in Nursing**

- Achieve a score of 80% or better on sample NCLEX examinations.

#### **NURSD091A - Health Assessment**

- Demonstrate a basic understanding of the patient health assessment process.
- Utilize cultural assessment as part of a holistic approach to assessment of patient healthcare needs.

#### **NURSD91AL - Health Assessment Lab**

- Demonstrate a basic understanding of patient health assessment process.
- Integrate health assessment data in the nursing process of planning care.

#### **NURSD091B - Fundamentals of Nursing/Sub-Acute**

- Incorporate patient/family teaching into the plan of care for a non-acute older adult patient.
- Identify salient assessment data for non-acute adult patients experiencing chronic health problems.

#### **NURSD91BL - Fundamentals of Nursing/Sub-Acute Clinical**

- Provide safe and patient-centered nursing care for patients in a non-acute care setting following college regulations and facility protocols.
- Develop a patient-specific plan of care for the non-acute older adult patient using the nursing process.

#### **NURSD091P - Pharmacology I**

- Use the nursing process to identify interventions for safe medication management.
- Identify physiological processes affecting the efficacy of medications.

#### **NURSD092. - Medical-Surgical Nursing**

- Use the nursing process to identify priorities and goals of patients experiencing fluid and electrolyte imbalances.
- Use the nursing process to identify priorities and goals for perioperative patients.

**NURSD092L - Medical-Surgical Nursing Clinical**

- Demonstrate safe and competent care of one patient in the acute care setting using the nursing process.
- Demonstrate the safe administration of parenteral medications.

**NURSD092P - Pharmacology II**

- Apply concepts of drug/drug interactions, drug/food interactions and drug focused patient teaching to pharmacological agents affecting the central and peripheral nervous systems, endocrine system and blood pressures regulation.
- Demonstrate correct calculations of doses of medications for medical/ surgical adult patients.

**NURSD093. - Reproductive Health Nursing**

- Apply the theoretical knowledge of pregnancy, birth physiology and perinatal care to specific patient-focused care situations.

**NURSD093A - Pediatric Nursing**

- Compare the physiologic, cognitive, and psychosocial stages of the pediatric patient: infant, toddler, preschooler, school age and adolescent.
- Differentiate the common etiologies of morbidity and mortality in children.

**NURSD93AL - Pediatric Nursing Clinical**

- Use the nursing process to provide comprehensive care for pediatric patients and their families in an acute care setting.
- Formulate a plan of care for a pediatric patient taking into consideration growth and developmental abilities and tasks.

**NURSD093L - Reproductive Health Nursing Clinical**

- Identify and discuss QSEN competencies in performance of nursing care by self and others for the perinatal patient.
- Demonstrate effective use of ISBAR tool to enhance care team communication and collaboration in the care of the perinatal patient.

**NURSD93PL - Pharmacology III Laboratory**

- Insert, secure and maintain six (6) intravenous catheters successfully following universal precautions and nursing standards of care.
- Maintain an injury-free environment during intravenous insertion and blood-draw procedures following OSHA protocols.

**NURSD094. - Gerontology Nursing**

- Apply principles of Advance Care Planning to care of an older adult.
- Analyze and apply principles of normal aging in designing a plan of care for an older adult experiencing a chronic health problem using the nursing process.

**NURSD094A - Psychiatric/Mental Health Nursing**

- Apply own cultural background to concepts of mental health and mental illness.
- Design a critical thinking component in relation to the nursing care of a patient with a given psychiatric diagnosis.
- Demonstrate knowledge of Alcoholics Anonymous meetings and identify professional implications for the nurse.

**NURSD94AL - Psychiatric/Mental Health Nursing Clinical**

- Assess, plan, implement and evaluate a plan of care for patient with a psychiatric diagnosis.
- Identify concepts that link learning in the clinical setting to knowledge gained from the course textbook.
- Analyze own personal responses to selected clinical observations and experiences.

**NURSD094L - Gerontology Nursing Clinical**

- Formulate a plan of care for an older adult incorporating age-related changes and developmental tasks.
- Analyze and apply salient trends of comprehensive assessment data during the clinical reasoning process for an adult patient experiencing an acute or chronic problem.

**NURSD095. - Complex Health Challenges**

- Identify the goals and priorities in the management of care of unstable adult patients experiencing rapid changes in health status using the nursing process.
- Identify the goals and priorities of care for adult patients experiencing multisystem failure using the nursing process.

**NURSD095L - Complex Health Challenges Clinical**

- Manage the care of adult patients experiencing rapid changes in health status utilizing the nursing process.
- Provide safe and comprehensive care for two adult patients experiencing complex health challenges.

#### **NURSD096. - Leadership and Management in Nursing**

- Demonstrate beginning management skills in nursing.
- Demonstrate beginning leadership skills in nursing.

#### **NURSD096A - Nursing Concept Integration**

- Achieve a score of 75% or better on assigned Case Studies and Practice Tests.
- Achieve a conversion score of 75% or better on the HESI Exit Exam.

#### **NURSD096L - Leadership and Management in Nursing Clinical**

- Provide safe care for 75%-100% of a typical RN assignment.
- Manage a patient assignment safely and proficiently at the entry RN level using the nursing process.

#### **NURSD201. - Nursing Laboratory Skills for Fundamentals of Nursing/Sub-Acute**

- Demonstrate competent administration of nonparenteral medications, aseptic techniques, vital signs and verification of nasogastric tube placement.

#### **NURSD202. - Nursing Laboratory Skills for Medical-Surgical Nursing**

- Demonstrate competent administration of parenteral medications, sterile procedures, insertion of tubes such as nasogastric tube and chest tubes, and use of monitoring devices such as glucometers and telemetry.

#### **NURSD203. - Nursing Laboratory Skills for Pediatric and Reproductive Health Nursing**

- Demonstrate comprehensive assessments related to the pediatric and the perinatal patient.

#### **NURSD204. - Nursing Laboratory Skills for Gerontology Nursing**

- Demonstrate competency in the management of central intravenous catheter procedures, intravenous push medications, soft restraints and advanced sterile procedures.

### **NUTR - Nutrition**

#### **CSLO**

#### **NUTRD010. - Contemporary Nutrition**

- Evaluate a meal plan or diet for meeting the criteria of a "Healthy Diet".
- Evaluate nutrition claims about dietary supplement, food, or diet for accuracy and health enhancing potential.

#### **NUTRD062. - Nutrition and Athletic Performance**

- Evaluate a meal plan or diet for meeting the nutritional needs of the athlete.
- Evaluate a dietary supplement, with claims of enhancing athletic performance.

#### **NUTRD062G - Dieting (Sifting Fact from Fiction)**

- Analyze weight loss diets, programs and supplements, determining effective strategies for healthy and lasting weight loss.