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PACIFIC ISLANDS STUDIES

PACS 108 Pacific Island Worlds: Today & Tomorrow (3) KCC AA/DS and KCC AS/AH or KCC AS/SS

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100, ENG 160 or ESL 100.

Recommended Preparation: ENG 100 and HWST 107.

PACS 108 is an introduction to the contemporary Pacific islands region and cultures through a survey of the major dilemmas facing its inhabitants now and in the near future.

Upon successful completion of PACS 108, the student should be able to:

- Discuss the historical origins of current issues and trends.
- Discuss cultural persistence and change and the influence of tradition in contemporary life.
- Discuss and demonstrate an understanding of contemporary cultural, social, political and economic issues in their local, regional, pan-Pacific, and global contexts through informed analysis and debate.
- Discuss issues in Pacific Islander communities in urban centers within the region and on the Pacific Rim.
- Identify potential issues and resolutions that the region will face in the near future based on current issues and trends.

PACS 257 Themes in Literature: Literature of Oceania (3) KCC AA/DL and KCC AS/AH

3 hours lecture per week

Prerequisite(s): Completion of ENG 100, ENG 160 or ESL 100 with a grade of "C" or higher.

Recommended Preparation: Completion of HWST 107 or PACS 108 with a grade of "C" or higher.

Comment: PACS 257 is cross-listed as ENG 257C.

PACS 257 is a study of selected works of the literature of Oceania created in the 19th and 20th centuries outside Hawai'i. Students will focus on the interaction between and among people from across Oceania through these works. Themes such as place and identity, cultural norms and ideals, and responses to change: assimilation, alienation, and issues of nationalistic movements in Oceania will be discussed.

Upon successful completion of any course in the Themes in Literature series, the student should be able to:

- Consider a work of literature as a reflection of its cultural milieu.
- Examine a work of literature from various vantage points.
- Examine and analyze the various elements of a literary work.
- Use basic concepts and terminology particular to literary analysis.
- Recognize major themes in a work of literature; explore their implications and identify their basic assumptions.
- Analyze structure; understand how form contributes to meaning.
- Show greater sensitivity to language and literary devices authors use in literature.
- Appreciate the artistry of literary works and become better acquainted with writers as artists.
- Recognize the need for literary evidence to support opinions and ideas regarding literary works.
- Express opinions and responses to literature clearly and effectively in writing.

Upon successful completion of PACS 257, the student should be able to:

- Demonstrate knowledge of some of the authors of 19th and 20th century in the Pacific, from a range of ethnic and cultural groups.
- Recognize the universality in human experience, as well as the qualities that make a particular ethnic or cultural group distinct.

- Recognize the diversity of literary opinions, conflict and commonality in relationship to cross-cultural perspectives in Oceania.

PACS 273 Language and Culture of Polynesia (3)

KCC AA/DH and KCC AS/AH

3 hours lecture per week

Prerequisite(s): ENG 100; HAW 102 or SAM 102 or fluency in a Polynesian language.

Recommended Preparation: HWST 100 or PACS 108.

PACS 273 uses the indigenous languages of Polynesia as the primary vehicle to explore and examine the aboriginal cultures of the region.

Upon successful completion of PACS 273, the student should be able to:

- Identify and locate the major islands and island groups of Polynesia.
- Explain the fundamental similarities and differences of aboriginal Polynesian cultures.
- Describe the evolution of Polynesian languages and their current relationships to each other.
- Identify the major issues facing aboriginal languages of the region today.

PHARMACOLOGY

PHRM 110 Basic Clinical Pharmacology (2)

Spring, Summer

4 hours lecture per week for eight weeks

Prerequisite(s): A grade of "C" or higher in BIOL 120, BIOL 130, or ZOOL 141/142; a grade of "C" or higher in HLTH 160; a grade of "C" or higher in HLTH 110 or 125.

Comment: PHRM 110 is an online Internet course.

PHRM 110 is offered in spring and summer only.

Letter grade only. PHRM 110 may not be taken credit/no credit. PHRM 110 may not be audited.

PHRM 110 covers the broad scope of pharmacology including definitions, drug standards, classification, legislation of drugs and administration of drugs; survey of medications commonly used in the prevention, diagnosis, and treatment of diseases, with discussion of pharmacological action, side effects, and related responsibilities.

Upon successful completion of PHRM 110, the student should be able to:

- Identify major drug classifications and common drugs within each classification.
- Interpret abbreviations and symbols accurately as they relate to drug administration.
- Explain standards and legislation related to selected drugs.
- Use appropriate references for obtaining drug information.
- Identify drugs commonly used in the prevention, diagnosis, and treatment of disease (action, side effect, and related responsibilities).
- Recognize major factors which affect drug action.
- Demonstrate current knowledge of pharmaceuticals commonly used in immunizations for the prevention of specific diseases.
- Identify major drug classifications, and common drugs within each classification, used in treatment of specific infectious disease conditions.
- Identify major drug classifications, and drugs within each classification, commonly used in treatment of specific disease conditions encountered in the medical office.
- Cite specific action, side effects, and responsibilities related to use of all pharmaceuticals discussed in class.

PHRM 115 Administration of Medications (1)

Spring, Summer

4 hours lecture/lab per week for eight weeks

Prerequisite(s): Acceptance into the Medical Assisting program; a grade of "C" or higher in PHRM 110 or program director consent.

Comment: PHRM 115 is offered in the spring and summer semesters only. Letter grade only. PHRM 115 may not be audited. PHRM 115 may not be taken credit/no credit.

PHRM 115 provides instruction in the application of basic concepts required for medication administration: choice of equipment, proper technique, hazards and complications, patient care; satisfactory performance of intramuscular, subcutaneous, and intradermal injections; preparation and administration of oral medications; immunizations.

Upon successful completion of PHRM 115, the student should be able to:

- Apply the basic concepts required for medication administration.
- Solve conversion problems within and among the following systems: household, metric, and apothecary
- Interpret abbreviations and symbols accurately as they relate to drug administration.
- Explain legislation relating to drug administration.
- Correctly perform pharmaceutical calculations.
- Apply the specific rules of safe drug administration.
- Correctly apply/ administer oral, ophthalmic, otic, nasal, and parenteral drugs in simulated lab situations.

PHRM 203 General Pharmacology (3)

3 hours lecture per week

Prerequisite(s): ZOOL 141; ZOOL 142.

Recommended Preparation: Chemistry.

Comment: PHRM 203 may be audited with the instructor's permission. PHRM 203 cannot be taken CR/NC.

PHRM 203 is a general pharmacology course that includes discussion of the major categories of drugs, their mechanism of action, toxicity, administration considerations, and uses. This course is intended for nursing students and students in the other health occupations.

Upon successful completion of PHRM 203, the student should be able to:

- Define "pharmacodynamics" and identify factors which affect the pharmacodynamics of drugs used in the maintenance of health and the prevention and treatment of illness.
- Identify the major categories of drugs used for the major body systems and functions.
- For each of the above categories, identify the primary physiologic actions, pharmacodynamic interactions, and pharmacotherapeutic applications, including administration considerations.
- Describe major current developments in drug therapy.
- Describe the ethical and legal responsibility

in the administration of drugs for the nurse and other health personnel.

PHILOSOPHY

PHIL 100 Introduction to Philosophy (3) KCC AA/DH and KCC AS/AH

3 hours lecture per week

Recommended Preparation: Credit in or qualification for ENG 100, ENG 160 or ESL 100.

PHIL 100 is a brief survey course covering the various methods, values, and types of philosophies.

Upon successful completion of PHIL 100, the student should be able to:

- Recognize and distinguish the major worldviews that have dominated and sometimes polarized philosophy.
- Reflect upon and discuss the major thinkers and the major concerns of philosophy, such as the problem of God, the nature of reality, the nature of self, ethical concerns, problems of truth, and problems of meaning.
- Discuss contemporary philosophical trends and conflicts.
- Reflect upon their own worldview and value system.
- Express ideas and opinions clearly in writing.

PHIL 101 Introduction to Philosophy: Morals & Society (3) KCC AA/DH and KCC AS/AH

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100, ENG 160 or ESL 100.

PHIL 101 is a study of contemporary ethical issues through the perspective of classical and contemporary philosophical theories.

Upon successful completion of PHIL 101, the student should be able to:

- Explain the major views that have defined the Western debate on ethical matters to include: virtue ethics, egoism, utilitarian theory and deontological theory.
- Describe and compare the key positions brought forward by philosophers on such topics as the nature of the human good, the

question of the good life, the problematic nature of human moral obligation, the tension between moral relativism and moral absolutism.

- Explain cultural differences in the areas of moral and social value as applied to contemporary issues.
- Analyze contemporary ethical problems with critical reasoning, logical arguments and ethical concepts.
- Articulate and justify one's own personal moral perspective with respect to specific issues of contemporary concern.
- Express ideas and opinions clearly, orally and in writing.
- Analyze ways in which contemporary philosophical debate can shape the discussion of contemporary ethical problems and concerns.

PHIL 102 Introduction to Philosophy: Asian Traditions (3) KCC AA/DH and KCC AS/AH

3 hours lecture per week

Recommended Preparation: Credit in or qualification for ENG 100, ENG 160 or ESL 100.

PHIL 102 is a survey of major themes and schools of Asian Philosophy.

Upon successful completion of PHIL 102, the student should be able to:

- Critically reflect upon and articulate their ideas about reality.
- Investigate major issues in Asian philosophy.
- Describe major contrasts between Asian and Western thought.
- Recognize the methods of philosophical reflection.
- Make informed choices about personal value systems.
- Use the vocabulary of Asian philosophical issues.
- Discuss characteristics of the major schools of Asian philosophy.
- Discuss the development of the schools of Asian philosophy and their occasional influence on each other.
- Draw inferences from the influence of Asian philosophy on the West.
- Express ideas and opinions clearly in writing.

PHIL 110 Introduction to Deductive Logic (3)

KCC AA/FS

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100.

PHIL 110 is an introductory course in logic focusing on methods and principles of deductive reasoning. Integral to this study will be the presentation of methods for representing logical form and the development of a system of inference rules and strategies that allow for the determination of validity and invalidity of deductive arguments.

Upon successful completion of PHIL 110, the student should be able to:

- Translate English language arguments into symbolic notation and logical languages, supplying language keys as necessary.
- Employ a basic system of Inference Rules to present well constructed proofs of validity for symbolized arguments.
- Correctly introduce and follow protocols governing the use of assumptions in deductive reasoning.
- Construct truth tables for arguments, statements and sets of statements.
- Use truth tables to determine (in)validity and (in)consistency.
- Use Venn Diagrams to represent categorical and individual statements, and basic syllogistic arguments.
- Explain the different criteria for assessing the quality of arguments and the particular importance of argument structure among these criteria.
- Apply different evaluative criteria to specific cases of argument.

PHIL 211 History of Western Philosophy I (3)

KCC AA/DH and KCC AS/AH

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100, ENG 160, or ESL 100, or a previous college-level course in philosophy.

PHIL 211 surveys the history of early Greek and Roman Philosophy from the PreSocratics to the early Christian era.

Upon successful completion of PHIL 211, the student should be able to:

- Recognize the major lines of debate that

have defined the development of Western Philosophy in the areas as Metaphysics, Epistemology, and Ethics.

- Describe the positions and roles of key philosophical thinkers and philosophical schools, to include those of Plato and Aristotle as well as key philosophers and movements of the Hellenistic, early Christian periods.
- Apply critical reasoning and philosophical concepts to an analysis of defining problems in the Ancient and early Christian worlds.
- Explain through in-class discussions and written assignments an appreciation of the arguments presented to justify given philosophical positions put forward by specific philosophers studied in the course.
- Articulate her/his own personal view of the debates of this period with reference to specific concepts and arguments studied.
- Express ideas and opinions clearly, orally and in writing.

PHIL 213 History of Western Philosophy II (3) KCC AA/DH and KCC AS/AH

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100, ENG 160, or ESL100, or a previous college-level course in philosophy

PHIL 213 surveys major Western philosophies from the Renaissance to present.

Upon successful completion of PHIL 213, the student should be able to (related to philosophy in the Late Medieval Period to present):

- Describe the nature and significance of major controversies in epistemology, metaphysics, ethics, and aesthetics that have concerned philosophers.
- Identify and discuss changing goals and methods of philosophy in the period covered.
- Articulate reasons that support personal judgment about major controversies in epistemology, metaphysics, ethics, and aesthetics.
- Explain through in-class discussions and written assignments an understanding of the arguments put forward by specific philosophers studied in the course.
- Express ideas and opinions clearly, orally and in writing.

PHIL 250 Ethics in Health Care (3) KCC AA/DH and KCC AS/AH

3 hours lecture per week

Recommended Preparation: Credit or concurrent enrollment in ENG 100 or ENG 160.

PHIL 250 is an exploration of basic ethical theories and their application to ethical dilemmas with discussion of various methods of decision-making. It engages students in the critical analysis of the ethical dimensions of health care.

Upon successful completion of PHIL 250, the student should be able to:

- Describe and apply a variety of major ethical theories to “real life” situations involving ethical decision-making.
- Use such methods as Inquiry-Based Learning for the study of ethical problems.
- Gain access to the literature of ethical theory.
- Describe multicultural perspectives that may affect ethical decisions in health care.
- Describe the criteria for decision-making competency.
- Distinguish between personal values, professional values and obligations, and legal obligations.
- Distinguish between personal morality and professional ethics.

PHYSICAL THERAPIST ASSISTANT

PTA 101 Professional Issues I: Introduction to Physical Therapy (1)

1 hour lecture per week

Prerequisite(s): A grade of “C” or higher or concurrent enrollment in ENG 100.

Recommended Preparation: PHIL 250.

Comment: Letter grade only. PTA 101 may not be audited. PTA 101 may not be taken credit/no credit. There is a 16 hour clinical observation requirement.

PTA 101 explores the roles and careers of physical therapists and physical therapist assistants in the context of health care systems. Students attend and write summaries of professional meetings, conduct a variety of interviews, and observe or volunteer in a physical therapy clinic. Students will explore the

use of the internet for physical therapy information. PTA 101 also explores the US health care system and other international systems.

Upon successful completion of PTA 101, the student should be able to:

- Explain the roles of physical therapists and physical therapist assistants.
- Define the key terms in physical therapy using "The APTA Guide to Physical Therapy Practice".
- Identify the key services provided by physical therapy in health care systems.
- Complete 16 or more hours of observation/volunteer service in a physical therapy clinic.
- Describe conduct that reflect the APTA Guide to Physical Therapy Practice, practice standards that are legal, ethical, and safe, a commitment to the profession of physical therapy and the consumers of health care services.
- Explain the purpose of physical therapy and the scope of PTA practice to clients, community and others.
- Describe the personal responsibility for career development, patient advocacy, life-long learning and membership in the professional association.
- Read, locate and interpret health care literature, documents or Internet information.
- Identify the history and development of physical therapy as a profession.
- Discuss billing, reimbursement, and legislative issues in health care.
- State aspects of planning and operating PT services.
- Locate and write a summary of the APTA code of conduct, APTA website of information for standardized practice and individual state practice acts for physical therapy.
- Identify individual and cultural differences and responds appropriately in all aspects of physical therapy services.
- Compare and contrast the U.S. health care system with other international systems.

PTA 202 Thermal Agents (2)

4 hours lecture/lab per week

Prerequisite(s): Acceptance into the Physical Therapist Assistant program or consent of PTA program director.

Comment: Letter grade only. PTA 202 may not be audited. PTA 202 may not be taken credit/no credit.

PTA 202 presents the principles and application of, physiological effects of, indications, contraindications and of thermal, electromagnetic and acoustic modalities. Appropriate parameters for the treatment of pain, decreased range of motion, edema, and inflammation in the acute, sub-acute and chronic stages of healing will be included. A review of the mechanisms of trauma and healing along with the physiology of pain and its measurement will be covered. American Physical Therapy Association (APTA) approved terminology as it applies to diagnosis, pathologies, signs & symptoms as well as different equipment components and parameters will be required. This course will use lab simulation and role playing of actual clinical situations from the lecture information to problem solve, think analytically and modify parameters as it relates to observed responses and conditions presented.

Upon successful completion of PTA 202, the student should be able to:

- Explain and perform safe, effective, and competent application of thermal and non-thermal modalities for a variety of conditions while adhering to the APTA Guide to Physical Therapy (PT) practice and legal standards presented in this course as it meets the current professional practice. Modalities may include Thermotherapy, Cryotherapy, Ultra sound, Infrared, Short-wave & Microwave diathermy, Whirlpool, Contrast baths, Ultra violet, and Lasers.
- Describe the physical and emotional effects of chronic pain and the disease process for the patients.
- Identify then justify the appropriateness of the treatment intervention choice to the presented signs/symptoms that are commonly associated with these

diagnoses.

- Identify and locate bony landmarks and the musculo skeletal structures that can be affected by the application of thermal and non-thermal interventions.
- Demonstrate and explain patient positioning, draping and comfort as it addresses the treatment goals and the treatment plan.
- Demonstrate the ability to problem solve, think analytically and modify parameters as they relate to observed patient responses and conditions including recall of the indications, contraindications and precautions of the modalities presented.
- Describe the expected and unexpected physiological effects of the applied modalities.
- Demonstrate the ability to explain applied interventions to patient and families in an acceptable manner being sensitive to cultural issues and client biases.
- Effectively teach the use of independent superficial thermotherapy and cryotherapy equipment for use in the patient's home situation.
- Accurately record the thermal agent session using approved medical terminology and professional documentation format.

PTA 204 Traction (1.5)

4.5 hours lecture/lab per week for 10 weeks

Prerequisite(s): Acceptance into the PTA program or consent of the PTA program director.

Comment: Letter grade only. PTA 204 may not be audited. PTA 204 may not be taken credit/no credit.

PTA 204 presents the principles and applications of mechanical cervical and lumbar traction as they relate to clinical application: Included will be the anatomy of the structures affected, the physiological changes that occur, the indications and contraindications. By using lab simulation and role-playing of actual clinical situations students will problem solve, think analytically and modify treatment parameters

as it relates to observed responses and conditions presented. Safety, frequency, duration and techniques for clinical and home applications will be covered.

Upon successful completion of PTA 204, the student should be able to

- Demonstrate competency as laid out in the Blue MACS and Cameron competency check lists in application of all types of mechanical traction. Applications must show safe, effective and efficient application and may include the use of various types of clinical cervical and lumbar traction applications including static and intermittent, symmetrical and asymmetrical traction as it applies to the symptoms, diagnosis and goals of treatment.
- Demonstrate the ability to problem solve, think analytically and modify parameters as they relate to observed patient responses and conditions presented.
- Identify the anatomical structures being affected by traction.
- Identify indications and diagnosis appropriate for treatment with mechanical traction and the symptoms that commonly are associated with these diagnoses.
- Identify contraindications for traction applications.
- Position patient correctly for cervical and lumbar traction taking into consideration the patients symptoms, diagnosis, treatment goals and patient comfort.
- Demonstrate safe, effective and efficient application and use of various types of home cervical and lumbar traction devices.
- Effectively explain the uses of mechanical traction and the physiology changes that occur in both clinical and lay terms
- Recognize and describe the range of normal and abnormal responses to traction and suggest appropriate adjustment to Rx parameters as needed.
- Use approved terminology from the APTA: Guide to PT Practice and the APTA: Resource Guides.
- Document accurately, position, parameters and results of lumbar and cervical traction.

PTA 205 Measurement for the Physical Therapist Assistant (1.5)

4.5 hours lecture/lab per week for 10 weeks

Prerequisite(s): Acceptance into the PTA program, or consent of the PTA program director, or a grade of "C" or higher or concurrent enrollment in HLTH 290 and a grade of "C" or higher or concurrent enrollment in HLTH 290L.

Comment: Students will need to purchase the APTA Student kit, which includes the measurement tools for PTA 205. Letter grade only. PTA 205 may not be audited. PTA 205 may not be taken credit/no credit.

PTA 205 provides the opportunity practical development on the theory and skills required for basic measurements within the scope of practice of the Physical Therapist Assistant. Performance skills in goniometry, gross manual muscle testing, ROM, circumferential and axial measurements are demonstrated through hands-on skill activities and group practice sessions.

Upon successful completion of PTA 205, the student should be able to:

- Perform competent joint range of motion measurements and appropriate recording of the result.
- Perform and pass vital signs certification.
- Measure and document patient height and weight.
- Competently measure and accurately document limb length and girth.
- Document normal and abnormal muscle length and joint movements.
- Perform manual muscle strength testing and document the results.
- Identify the presence or absence of muscle mass and tone.
- Identify contraindications and precautions to any PT intervention and changes needing the attention of the supervising PT.
- Define and practice Universal/Standard precautions of the CDC during the measurement techniques.
- Effectively explain the purpose of the measurement assessment and result to the physical therapist, clients, community and others.
- Describe OSHA regulations.

- Read, locate and interpret health care literature, documents or Internet information.
- Achieve a passing score in the clinical internship course series.
- Communicate data and information from PT interventions in written documentation with the patient, family, PT, health care delivery personnel and others in an effective, appropriate and capable manner.
- Identify individual and cultural differences and responds appropriately in all aspects of physical therapy services.
- Demonstrate conduct that reflect the APTA Guide to Physical Therapy Practice, practice standards that are legal, ethical, and safe and a commitment to the profession of physical therapy and the community.
- Describe the personal responsibility for career development, patient advocacy, life-long learning and membership in the professional association.

PTA 212 Physical Therapy Intervention for Neuropathologies (2)

5 hours lecture/lab per week for 12 weeks

Prerequisite(s): Acceptance into the PTA program or consent of the PTA program director.

Comment: Letter grade only. PTA 212 may not be audited. PTA 212 may not be taken credit/no credit. PTA 212 may require visits to a physical therapy clinic to observe physical therapy sessions. Students will be required to purchase scantron sheets for exams and quizzes.

PTA 212 presents the neurological anatomy, physiology, pathology, etiology, psychological, social and rehabilitative concepts for the application of therapeutic interventions for patients with various neuropathologies. The focus of this course is to develop theoretical knowledge and perform clinical scenarios of therapeutic interventions used for patients with neuropathologies such as traumatic brain injury (TBI), spinal cord injury (SCI), cerebral vascular accident (CVA), Guillain-Barre syndrome, Parkinson's, Alzheimer's, Polio, amyelotrophic syndrome (ALS), Multiple sclerosis, various dystrophies and other neuropathology acquired in adulthood.

Upon successful completion of PTA 212, the student

should be able to:

- Communicate data and information from physical therapy (PT) interventions in written, verbal, and non-verbal methods with the patient, family, significant other, PT, health care delivery personnel and others in an effective, appropriate and capable manner using accepted medical terminology.
- Identify individual and cultural differences and responds appropriately in all aspects of physical therapy services.
- Explain conduct that reflects the American Physical Therapy Association (APTA) Guide to Physical Therapist Practice, practice standards that are legal, ethical, and safe and a commitment to the profession of physical therapy and meet the expectations of consumers receiving health care services
- Implement the plan of care developed by the PT to achieve the short and long-term goals of treatment and intended outcomes.
- Implement through demonstration the safe, effective and efficient competence in selected components of PT interventions identified in the plan of care:
 - Motor learning concepts
 - Movement analysis
 - Functional training
 - Therapeutic exercise
 - Gait analysis and training
 - Neuromuscular re-education
- Perform competent skill of previous PT intervention applicable to neuropathologies:
 - Assistive/adaptive devices
 - Body mechanics and posture awareness
 - Gait and locomotion training
 - Prosthetics and orthotics
 - Wheelchair management skills
 - Architectural barriers
 - Balance and coordination training
 - Breathing exercises, coughing and postural drainage
 - Conditioning and reconditioning exercises and techniques
 - Positioning
 - Range of motion exercises
 - Stretching techniques and exercises
- State the influences of positional changes, breathing patterns and thoracoabdominal movements in neuropathologies.
- Identify and apply problem-solving knowledge to address and modify a PT program in response to patient safety and clinical indications such as symptoms aggravated by activities within the scope of PTA practice and report the findings to the supervising PT.
- Identify the variety of neurological status measurement scales used to identify changes in arousal, mentation and cognition of patients.
- Describe and demonstrate activities, positions and postures that aggravate or relieve pain and that influence integumentary health.
- Identify the individual's or care giver's ability to care for the assistive, adaptive, prosthetic, orthotics and supportive devices in a safe manner.
- Identify and demonstrate normal and abnormal movement patterns and the presence or absence of selective motor control in patients with neuropathologies presented in the course.
- Describe and identify architectural barriers in the home or community that may assist or hinder clients with neuropathologies.
- Identify indications, contraindications and precautions to any PT intervention or the patient's present clinical status covered in the course.
- Explain the purpose of physical therapy, the scope of PTA practice, the scope of practice between the various rehabilitation services and the multidisciplinary team approach in patient care and non-patient care activities.
- Administer appropriate action and behavior in emergency situations.
- Read, locate and interpret health care literature, documents or Internet information.
- Describe the personal responsibility for career development, patient advocacy, life-long learning and membership in the professional association.
- Define the APTA code of conduct, APTA

website of information for standardized practice and individual state practice acts for physical therapy.

PTA 231 Professional Issues II: Documentation (2)

2 hours lecture per week

Prerequisite(s): Acceptance into the Physical Therapist Assistant program or consent of PTA program director; a grade of "C" or higher in PTA 101.

Comment: Letter grade only. PTA 231 may not be audited. PTA 231 may not be taken credit/no credit.

PTA 231 is designed to create a student's knowledge and skill of documentation and professional conduct. It investigates a variety of documentation forms and coding system used in patient records to comply with the billing, third-party payers and legal requirements. Students will apply technical writing appropriate to the current and future major coursework. In addition, the course examines professional conduct and physical therapy (PT) intervention as described in the American Physical Therapy Association (APTA) Guide to Physical Therapy Practice and international organizations.

Upon successful completion of PTA 231, the student should be able to:

- Communicate data and information from PT interventions in written documentation with the patient, family, PT, health care delivery personnel and others in an effective, appropriate and capable manner.
- Identify individual and cultural differences and respond appropriately in all aspects of physical therapy services.
- Demonstrate conduct that reflects the APTA Guide to Physical Therapy Practice, practice standards that are legal, ethical, and safe and a commitment to the profession of physical therapy and meet the expectations of consumers receiving health care services.
- Record sample data of PT interventions essential to the plan of care using appropriate medical terminology, a variety of forms, documentation styles such as Subject, Objective, Assessment, Plan (SOAP) notes, billing and reimbursement in an accurate and timely manner.

- Explain the purpose of physical therapy and the scope of physical therapist assistant (PTA) practice to simulated clients, community service learning opportunities and others.
- Distinguish the scope of practice between the various rehabilitation services.
- Read, locate and interpret health care literature, documents, Internet information, the APTA code of conduct, APTA website of information for standardized practice and individual state practice acts for physical therapy.
- Identify the personal responsibility for career development, patient advocacy, life-long learning, membership in the professional association and aspects of planning and operating PT services.
- Advocate PT legislative issues involving health care.
- Accept and implement feedback from instructors, clinical instructors and others for documentation performance improvement.
- State the importance of time management skills to function as an entry-level PTA practitioner.

PTA 232 Clinical Internship I (3)

120 hours clinical practice, 15 hours lecture and site visits

Prerequisite(s): Acceptance into the PTA program or consent of the PTA program director.

Comment: Letter grade only. PTA 232 may not be audited. PTA 232 may not be taken credit/no credit.

PTA 232 integrates clinical and didactic experiences by developing the students problem-solving, critical thinking and interpersonal skills in the clinical setting under the direction of qualified clinical instructors. Knowledge and skills gained in prerequisite and corequisite courses are applied to therapeutic interventions that address the goals of treatment and the plan of care as set up by the supervising physical therapist. Clinical sites will include outpatient orthopedics and possibly long term care.

Upon successful completion of PTA 232, the student should be able to:

- Provide safe and effective physical therapy services as specified in the plan of treatment laid out by the supervising physical therapist. Services will include the appropriately selected physical agents, procedures, data collection and interpersonal skills.
- Recognize normal and abnormal reactions to treatment interventions. Report to supervising physical therapist and suggest alternative interventions.
- Accurately collect data which may include ROM, muscle strength, muscle length, limb length, girth, wound measurement and grade, respiratory status, circulatory condition, functional activities and Activities of Daily Living (ADLS) to assist physical therapist in their evaluation process.
- Describe the physiological disease process, anatomy and kinesiology in the patient population seen, as it applies to physical therapy interventions.
- Provide competent oral and written education to patients, family and other health care providers as it applies to physical therapy interventions.
- Identify individual and cultural differences and respond appropriately in all aspects of physical therapy services
- Exhibit professional behaviors that reflect a commitment to the patients, community and growth of the profession of physical therapy.
- Demonstrate an understanding of OSHA regulations and universal precautions
- Demonstrate appropriate body mechanics in the application of treatment procedures to assure safety of both the patient and the student.
- Identify the responsibilities of the student, clinic, and college in the internship.
- Use the MACS as a guide for competency assessment, study, and performance standards.
- Demonstrate appropriate SOAP and problem-oriented documentation procedures.
- Practice confidentiality concerning patient and clinic information.

- Participate in clerical and reception duties as needed.
- Exhibit and identify practice and conduct that reflects the APTA code of ethics and practice standards.
- Use approved terminology from the APTA Guide to Physical Therapy Practice and APTA Resource Guide.

PTA 242 Advanced Therapeutic Interventions (3)

6 hours lecture/lab per week

Prerequisite(s): Acceptance into the Physical Therapist Assistant program or consent of the PTA program director.

Comment: Letter grade only. PTA 242 may not be audited. PTA 242 may not be taken credit/no credit.

PTA 242 presents the theory and application of therapeutic interventions as they relate to amputations, cardio pulmonary conditions, wounds, peripheral vascular disease, burns, lymphedema and Obstetrics and Gynecology (OB/GYN) conditions. It reviews basic physiology, pathology and etiology of the named conditions. An overview of the most commonly seen surgical and nonsurgical interventions will be included. By using lab simulation and role playing of actual clinical situations the students will use information to think analytically, problem solve and modify treatment interventions. Isolation techniques, prosthetic and orthotic fitting will be practiced. An integrated approach to treatment will include material from all previous courses with an emphasis on therapeutic exercise.

Upon successful completion of PTA 242, the student should be able to:

- Identify the physiology, pathology and etiology of amputations, burns, PVD, wounds, lymphedema, cardiopulmonary conditions and OB/GYN conditions while being sensitive to ethnic and cultural issues and biases.
- Identify the anatomical structures involved in the pathologies presented.
- Describe appropriate surgical and non-

surgical interventions as they apply to each presented diagnosis.

- Describe and competently perform the treatment interventions and suggest modifications in response to the range of simulated patient outcomes as appropriate.
- Describe the contraindications and precautions for each simulated diagnosis and intervention.
- Identify and practice the requirements of universal precautions and Occupational Safety and Health Administration (OSHA) guidelines as they apply to physical therapy practice.
- Use approved terminology in the documentation process of each simulated session of care.

PTA 243 Therapeutic Exercise for Orthopedic Conditions (3)

6 hours lecture/lab per week

Prerequisite(s): Admission into the Physical Therapist Assistant program or permission from the PTA program director.

Comment: Letter grade only. PTA 243 may not be audited. PTA 243 may not be taken credit/non credit.

PTA 243 presents the clinical testing, data collection and application of therapeutic exercise as it applies to selected orthopedic pathologies at different stages of injury and healing. The conditions will include sprains, strains, hypermobile and hypomobile joints, overuse syndromes, common spinal diagnosis, fractures, arthritis, total joint replacements and neuromusculoskeletal surgical interventions. The rational for orthopedic tests and the application of the treatment interventions for the selected conditions will include the safe and effective application of passive, assisted and active range of motion (ROM), isometric, concentric and eccentric exercise, progressive resisted exercise (PRE), plyometrics, neuromuscular facilitation/inhibition, aerobic and anaerobic exercise, endurance training, balance exercises and isokinetic exercise. Use of lab simulation and role playing of actual clinical situations allow the student to demonstrate

knowledge and skills to problem solve, think analytically, perform tests, select and/or modify exercise programs as they relate to the conditions presented and the observed physiologic responses. The use of appropriate communication skills, American Physical Therapy Association (APTA) terminology and documentation, and the ability to progress exercise programs within the plan of care will be emphasized.

Upon successful completion of PTA 243, the student should be able to:

- Identify and discuss the physiology, pathology, etiology, signs and symptoms that occur in the selected orthopedic conditions.
- Competently perform and explain the application of all appropriate physical therapy (PT) interventions and/or assessment skills for the selected orthopedic conditions within the guidelines of the ethical and legal practice standards.
- Identify and explain the indications and contraindications for use of various types of therapeutic exercise during the three stages of healing of named orthopedic pathologies.
- Analyze and implement proposed exercise programs for the efficacy in obtaining the goals of treatment.
- Describe the use of aqua-therapy as it applies to the orthopedic population.
- Correctly explain in both written and verbal communication styles the physiological effects of the applied exercise techniques in layman's terms and professional language.
- Identify and discuss the effects of chronic abnormal pathology and pain on the musculo-skeletal system and the psychological well being of patients.
- Demonstrate appropriate assessment tools and collect data for the named orthopedic pathologies.
- Demonstrate ROM and stretching exercises, education of a home exercise

program, PRE's, neuromuscular facilitation techniques, balance, endurance, and plyometrics to simulated orthopedic pathologies.

- Demonstrate and justify trunk stabilization, posture, back exercises and ergonomics as they apply to common back conditions.
- Demonstrate and justify functional activities to the rehabilitation of orthopedic conditions.
- Use problem solving and analytical thinking skills, to modify exercise programs as they relate to observed simulated patient responses, conditions presented, and the goals of treatment.
- Correctly identify and discuss major bony landmarks and musculo-skeletal structures, end feel, resting length, stretch, normal ROM, strength, power and endurance as they apply to the exercise programs presented.
- Document accurately in Subjective, Objective, Assessment and Plan (SOAP) note form the simulated PT intervention session.

PTA 251 Professional Issues III: Employment (1)

1 hour lecture per week

Prerequisite(s): Acceptance into the Physical Therapist Assistant program, or consent of the PTA program director; a grade of "C" or higher in PTA 231.

Comment: Letter grade only. PTA 251 may not be audited. PTA 251 may not be taken credit/no credit.

PTA 251 is designed to develop a student's participation and commitment to the profession of physical therapy. It investigates the opportunities and responsibilities of an employee in the health care delivery system through activities of résumé preparation, mock job interviews, legislative testimonies, attending professional and government meetings and participating in the Hawai'i Chapter of the American Physical Therapy Association (HAPTA). This course emphasizes life long learning, the practice of ethics and legality, and the American

Physical Therapy (APTA) core values. Finalization of an electronic portfolio will be emphasized for transfer to the APTA website.

Upon successful completion of PTA 251, the student should be able to:

- Identify individual and cultural differences and respond ethically in all aspects of physical therapy services.
- Discuss the relationships of government agencies to health care delivery, billing and reimbursement issues and aspects of planning and operating PT services.
- Demonstrate conduct and responsibility that reflect the APTA Guide to Physical Therapy Practice, practice standards that are legal, ethical, and safe and a commitment to the profession of physical therapy and meet the expectations of consumers receiving health care services.
- Advocate for the role of physical therapy and the scope of PTA practice.
- Discuss the scope of practice between the various rehabilitation services.
- Prepare a résumé and role-play an employment interview.
- Identify Occupational Safety and Health Administration (OSHA) regulations.
- Read, locate and interpret health care literature, documents, Internet information, the APTA code of conduct, APTA core values, APTA website of information for standardized practice and individual state practice acts for physical therapy.
- Provide examples and role-play personal responsibility for career development, patient advocacy, life-long learning, membership in the professional association and the involvement in legislative issues.
- Produce an electronic portfolio.

PTA 252 Clinical Internship II (3)

120 hours clinical practice, 15 hours lecture and site visits

Prerequisite(s): Acceptance into the PTA program, or consent of the PTA program director and a grade of "C" or higher in PTA 232.

Comment: Letter grade only. PTA 252 may not be audited. PTA 252 may not be taken credit/no credit.

PTA 252 integrates the clinical and didactic experiences by further developing the students problem-solving, critical thinking and interpersonal skills in the clinical setting under the direction of qualified clinical instructors. Knowledge and skills gained in prerequisite and corequisite courses are applied to therapeutic interventions that address the goals of treatment and the plan of care as set up by the supervising physical therapist. Clinical sites may include outpatient orthopedics, acute care, home care, pediatrics, school health and long term care.

Upon successful completion of PTA 252, the student should be able to:

- Provide safe and effective physical therapy services as specified in the plan of treatment laid out by the supervising physical therapist. Services will include the appropriately selected physical agents, procedures, data collection and interpersonal skills.
- Recognize normal and abnormal reactions to treatment interventions. Report to supervising physical therapist and suggest alternative interventions.
- Accurately collect data which may include ROM, muscle strength, muscle length, limb length, girth, wound measurement and grade, respiratory status, circulatory condition, functional activities and ADL's to assist physical therapist in their evaluation process.
- Describe the physiological disease process, anatomy and kinesiology in the patient population seen, as it applies to physical therapy interventions.
- Provide competent oral and written education to patients, family and other health care providers as it applies to physical therapy interventions.
- Identify individual and cultural differences and respond appropriately in all aspects of physical therapy services
- Exhibit professional behaviors that reflect a commitment to the patients, community and growth of the profession of physical therapy.

- Demonstrate an understanding of OSHA regulations and universal precautions.
- Demonstrate appropriate body mechanics in the application of treatment procedures to assure safety of both the patient and the student.
- Identify the responsibilities of the student, clinic, and college in the internship.
- Use the MACS as a guide for competency assessment, study, and performance standards.
- Demonstrate appropriate SOAP and problem-oriented documentation procedures.
- Practice confidentiality concerning patient and clinic information.
- Participate in clerical and reception duties as needed.
- Exhibits and identifies practice and conduct that reflects the APTA code of ethics and practice standards.
- Use approved terminology from the APTA Guide to Physical Therapy Practice and APTA Resource Guide.

PTA 260 Clinical Internship III (6)

320 hours clinical practice, 25 hours lecture, projects and site visits

Prerequisite(s): Acceptance into the PTA program, or consent of the PTA program director and a grade of "C" or higher in PTA 252.

Comment: Letter grade only. PTA 260 may not be audited. PTA 260 may not be taken credit/no credit.

PTA 260 integrates clinical and didactic experiences by implementing the student's problem-solving, critical thinking and interpersonal skills in the clinical setting under the direction of qualified clinical instructors. Previous clinical experiences along with completed PTA course work and skills are now refined in preparation for entering the work environment and taking the PTA Licensing Exam. Clinical sites may include outpatient orthopedics, acute care, home care, pediatrics, school health and long-term care.

Upon successful completion of PTA 260, the student should be able to:

- Perform safe and effective physical therapy services as specified in the plan of treatment laid out by the supervising physical therapist. Services will include the appropriately selected physical agents, procedures, data collection and interpersonal skills.
- Recognize normal and abnormal reactions to treatment interventions. Report to supervising physical therapist and suggest alternative interventions.
- Accurately collect data which may include ROM, muscle strength, muscle length, limb length, girth, wound measurement and grade, respiratory status, circulatory condition, functional activities and Activities of Daily Living to assist physical therapist in their evaluation process.
- Describe the physiological disease process, anatomy and kinesiology in the patient population seen, as it applies to physical therapy interventions.
- Provide competent oral and written education to patients, family, significant other, and other health care providers as it applies to physical therapy interventions.
- Identify individual and cultural differences and respond appropriately in all aspects of physical therapy services.
- Exhibit professional behaviors that reflect a commitment to the patients, community and growth of the profession of physical therapy.
- Demonstrate an understanding of OSHA regulations and universal precautions.
- Demonstrate appropriate body mechanics in the application of treatment procedures to assure safety of both the patient and the student.
- Identify the responsibilities of the student, clinic, and college in the internship.
- Use the MACS as a guide for competency assessment, study, and performance standards.
- Demonstrate appropriate SOAP and problem-oriented documentation procedures.
- Practice confidentiality concerning patient and clinic information.

- Participate in clerical and reception duties as needed.
- Exhibits and identifies practice and conduct that reflects the APTA code of ethics and practice standards.
- Use approved terminology from the APTA Guide to Physical Therapy Practice and APTA Resource Guide.
- Confidently apply for PTA positions in any physical therapy clinical setting.
- Successfully sit for the National PTA licensing exam.

PTA 265 Electrotherapy (1)

1.5 hours lecture per week for 10 weeks

Prerequisite(s): Acceptance into the PTA program or consent of the PTA program director.

Corequisite(s): PTA 265L.

Comment: Letter grade only. PTA 265 may not be audited. PTA 265 may not be taken credit/no credit.

PTA 265 presents the production, physiological effects, indications, contraindications and applications of various therapeutic electrical interventions. Appropriate parameters for the treatment of pain, muscle weakness, edema, wounds, or introduction of medication or monitoring of muscle activity will be included. A review of mechanisms of trauma and healing along with the physiology of pain and its measurement will be covered. Students are required to use APTA approved terminology as it applies to diagnosis, pathologies, signs & symptoms as well as different equipment components and parameters.

Upon successful completion of PTA 265, the student should be able to:

- Identify the principles and production of named therapeutic electrical currents.
- Describe the waveforms, frequencies and terminology applied to the major therapeutic electrical currents, such as Interferential, Premodulated, High Volt galvanic, Microcurrent, Alternating current, Direct current, Iontophoresis and Biofeedback.
- Recall the indications, contraindications and precautions of the currents presented.
- Describe the normal and abnormal

physiological responses of the tissues to various electrical currents.

- Describe the physical and emotional effects of chronic pain and disease process on the patients.
- Identify possible emotional responses of the patients to various electrical currents.
- Identify diagnosis appropriate for treatment with electrical currents and the signs/symptoms that are commonly associated with these diagnoses.
- Describe the appropriate electrical treatment options for named diagnosis and symptoms such as pain, wounds, muscle atrophy, inflammation and joint stiffness.
- Demonstrate an understanding of safety measures as they apply to electrical applications.
- Demonstrate an understanding of OSHA regulations and Universal precautions as they apply to electrical modalities
- Use approved terminology from the APTA: Guide to PT Practice and APTA: Electrotherapy Terminology in Physical Therapy

PTA 265L Electrotherapy Lab (1)

4.5 hours lab per week for 10 weeks

Prerequisite(s): Acceptance into the PTA program, or consent of the PTA program director.

Corequisite(s): PTA 265.

Comment: Letter grade only. PTA 265L may not be audited. PTA 265L may not be taken credit/no credit.

PTA 265L implements the clinical application of various electrotherapy modalities. By using lab simulation and role playing of actual clinical situations the students will use information from the PTA 265 lecture to problem solve, think analytically and modify parameters as it relates to observed responses and conditions presented. The application of treatment procedures as set out in the mock treatment plans will require the use of appropriate communication skills. Approved terminology from the APTA: Guide to Physical Therapy Practice and the APTA: Electrotherapeutic Terminology in Physical Therapy will be required for documentation

of treatment parameters and patient reaction to applied electrical interventions.

Upon successful completion of PTA 265L, the student should be able to:

- Demonstrate competency in the presented electrical modalities as laid out in the Mastery Assessment Clinical Skills Manual (MAC), Skill sheets and APTA: Guide to PT practice. The listed modalities may be indicated in the treatment of pain, edema, acute trauma, peripheral vascular disease, wound healing, reduction of muscle spasm and spasticity.
- The presented electrical modalities may include: Transcutaneous electrical nerve stimulation, microcurrent electrical nerve stimulation, high volt galvanic, interferential, russian, neuromuscular electrical stimulation, Functional electrical nerve stimulation, iontophoresis, surface Electromyography (Biofeedback), ultrasound/Electrical stimulation combinations.
- Demonstrate an understanding of the safety factors, indications, contraindications and precautions as they apply to the presented modalities.
- Identify and locate bony landmarks and the musculoskeletal structures that can be affected by the application of electrical current.
- Demonstrate patient positioning, draping and comfort as it addresses the treatment goals and the treatment plan.
- Demonstrate the ability to problem solve, think analytically and modify parameters as they relate to observed patient responses and conditions presented.
- Describe the physiological effects of the applied electrical modality.
- Demonstrate an ability to explain electrical treatments to patient and families in an understandable and acceptable manner.
- Demonstrate and effectively teach the use of independent electrotherapy equipment for use in the patient's home situation.
- Document accurately in SOAP note form, the patient positioning, equipment.

- Use approved terminology from the APTA: Guide to PT Practice.

PTA 275 Pediatrics for the Physical Therapist Assistant (1)

2 hours lecture/lab per week

Prerequisite(s): Acceptance into the Physical Therapist Assistant program or consent of the PTA program director.

Comment: Letter grade only. PTA 275 may not be audited. PTA 275 may not be taken credit/no credit. Transportation is required for clinic visits.

PTA 275 will provide students with the basic theories and therapeutic skills to deliver pediatric services with entry-level competence. Course content will include characteristics of disabilities in children including the role of the physical therapist assistant in a variety of settings. Case stories of children and families will illustrate course concepts and will also address the broader implications of the disability on the child, family, and community. Collaborative models of providing services will be explored including the provision of services in educational settings. Values that will be promoted throughout the course include a) family-centered care, b) cultural sensitivity, c) age-appropriate activities, d) functional skills, and e) collaborative teamwork.

Upon successful completion of PTA 275, the student should be able to:

- Identify and practice ways to communicate effectively with families of children with disabilities.
- Describe methods to provide physical therapy services that are culturally sensitive.
- Describe the continuum of services available to children and the families in Hawai'i.
- Identify and role-play as team members in different service delivery systems and settings to children.
- Describe the normal developmental process including age-appropriate play activities for young children.
- Recognize and demonstrate normal and abnormal gross and fine motor development including normal postural movements, reflexes, and motor milestones.
- Describe common genetic and neurological disabilities in children.
- Identify abnormal movement and reflexes in

children with neurological disorders.

- Mimic and facilitate appropriate posture and movement for children with abnormal muscle tone and reflexes.
- Link functional skills for children with a variety of disabilities.
- Perform therapeutic interventions for common pediatric orthopedic, pediatric pulmonary disorders and spinal abnormalities.
- Describe ways to support children with chronic and/or life-threatening illnesses.
- Recall the potential risks of alcohol, drugs, and blood borne pathogen infections on development.
- Describe and create assistive technology devices that can support children with disabilities to be included in home, school, and community activities.

PHYSICS

PHYS 100 Survey of Physics (3) KCC AA/DP and KCC AS/NS

3 hours lecture per week

Prerequisite(s): MATH 25 or equivalent mathematics course.

Comment: Registration in PHYS 100L is optional.

PHYS 100 is an introduction to physics; basic concepts. PHYS 100 is not open to those with previous college physics experience.

Upon successful completion of PHYS 100, the student should be able to:

- Demonstrate knowledge and understanding of some basic concepts and principles of physics.
- Demonstrate insights into associations and relationships of the topics treated in the course.
- Utilize elementary abstract thinking and analytical reasoning.
- Understand mathematical proportionality in physical principles.

- Utilize calculation techniques with mathematically formulated principles.
- Identify and assess quantitative information in terms of principles.
- Better utilize and control the physical environment.
- Understand the descriptions and principles of motion.
- Understand mechanical energy, power and efficiency.
- Understand thermodynamics and the kinetic theory of matter.
- Understand the basic principles of electricity and magnetism.

PHYS 100L Survey of Physics Laboratory (1)

KCC AA/DY

3 hours lab per week

Prerequisite(s): Credit or concurrent enrollment in PHYS 100.

PHYS 100L focuses on simple experiments in basic concepts of physics.

Upon successful completion of PHYS 100L, the student should be able to:

- Acquire experience in the use of instruments and equipment.
- Experience directly some concepts and principles of physics.
- Gain insight into the methods of experimentation and formulation.
- Acquire some insight into physical phenomena and formulations.
- Develop skills in quantitative determinations from formulations.

PHYS 122 Introduction to Science: Physical Science (3) KCC AA/DP and KCC AS/NS

3 hours lecture per week

Prerequisite(s): MATH 25 or equivalent mathematics course.

Recommended Preparation: High school physics and/or chemistry.

PHYS 122 focuses on characteristics of science and of the physical environment; topics from physical science.

Upon successful completion of PHYS 122, the student should be able to:

- Demonstrate knowledge and understanding of some basic concepts and principles.
- Demonstrate insights into associations and relationships of the topics treated.
- Utilize elementary abstract thinking and analytical reasoning.
- Understand mathematical proportionality in physical principles.
- Utilize calculation techniques with mathematically formulated principles.
- Identify and assess quantitative information in terms of principles.
- Better utilize and control the physical environment.
- Understand the descriptions and principles of motion.
- Understand mechanical energy, power and efficiency.
- Understand thermal energy and the kinetic theory of matter.
- Understand the basics of chemical bonding and reactions.

PHYS 122L Introduction to Science: Physical Science Lab (1) KCC AA/DY

3 hours lab per week

Prerequisite(s): MATH 25 or equivalent mathematics course.

Recommended Preparation: High school physics and/or chemistry.

PHYS 122L focuses on simple experiments in physical science.

Upon successful completion of PHYS 122L, the student should be able to:

- Demonstrate knowledge of the direct experience into some scientific concepts and principles.
- Demonstrate insights into the interaction

between theory and experiment.

- Design procedures for acquiring information from experimentation.
- Record data, analyze data, and extract information from data.
- Demonstrate skills at making quantitative determinations with formulations.
- Demonstrate some experience with the use of instruments and equipment.

PHYS 151 College Physics I (3) KCC AA/DP and KCC AS/NS

3 hours lecture per week

Prerequisite(s): MATH 140 or high school Trigonometry.

PHYS 151 is the first course in a two semester sequence of an introductory algebra/trigonometry - based physics courses. The course focuses on the principles, theories and problem solving in motion, mechanical energy, waves, heat and thermodynamics.

Upon successful completion of PHYS 151, the student should be able to:

- Give examples of applications and solve problems to demonstrate knowledge of and skills of motion, energy, wave theory, and thermodynamics.
- Identify and explain the concepts and principles related to the kinematics and dynamics of motion, energy, wave theory, and thermodynamics.
- Identify and define the associations and relationships of the topics treated in the course.
- Utilize abstract thinking and analytical reasoning in the analysis and solutions of word problems.
- Distinguish and define the mathematical proportionality in physical principles.
- Utilize calculation techniques with mathematically formulated principles.
- Identify and assess quantitative information in terms of physical principles.

PHYS 151L College Physics Laboratory I (1)

KCC AA/DY

3 hours lab per week

Prerequisite(s): Credit or concurrent enrollment in PHYS 151.

PHYS 151L is designed to provide the students a hands-on experience in the experimental analysis, physical observation and measurements in the kinematics and dynamics of motion, heat and thermodynamics. The course emphasis is on measurement techniques and analysis of data.

Upon successful completion of PHYS 151L, the student should be able to:

- Give examples of some direct experiences of the concepts and principles covered in the course.
- State and identify the interaction between theory and experiments.
- Design procedures for acquiring information from experimentation.
- Record, analyze, and extract information from data acquired.
- Make quantitative determinations with formulations.
- Use laboratory instruments and equipment.
- Make conclusions and formulate insights into the subjects of the laboratory projects.
- Write a laboratory report.

PHYS 152 College Physics II (3) KCC AA/DP

3 hours lecture per week

Prerequisite(s): PHYS 151.

PHYS 152 is the second course in a two semester sequence of an introductory algebra/trigonometry based physics courses. PHYS 152 focuses on the principles, theories and problem solving in electricity, magnetism, light, relativity theory, quantum atomic and nuclear reactions.

Upon successful completion of PHYS 152, the student should be able to:

- Give examples of applications and solve

problems to demonstrate knowledge of and skills of electricity, magnetism, light, relativity theory, quantum atomic and nuclear reactions.

- Identify and explain the concepts and principles related to electricity, magnetism, light, relativity theory, quantum atomic and nuclear reactions.
- Identify and define the associations and relationships of the topics treated in the course.
- Utilize abstract thinking and analytical reasoning in the analysis and solutions of word problems.
- Distinguish and define the mathematical proportionality in physical principles.
- Utilize calculation techniques with mathematically formulated principles.
- Identify and assess quantitative information in terms of physical principles.

- Make quantitative determinations with formulations.
- Use laboratory instruments and equipment.
- Make conclusions and formulate insights into the subjects of the laboratory projects.

PHYS 170 General Physics I (4) KCC AA/DP

4 hours lecture per week

Prerequisite(s): Credit or concurrent enrollment in MATH 206.

Recommended Preparation: PHYS 100 or high school physics course.

PHYS 170 is the first semester of an introductory calculus-based course. The course will provide the students a comprehensive introduction to the principles and theories of the mechanics of particles, rigid bodies and fluids; wave motion; thermodynamics and kinetic theory.

Upon successful completion of PHYS 170, the student should be able to:

- Demonstrate knowledge and skills of motion, energy, wave theory, and thermodynamics.
- Demonstrate an understanding of and insights into the concepts and principles related to the kinematics and dynamics of motion, energy, wave theory and thermodynamics.
- Demonstrate insights into the associations and relationships of the topics treated in the course.
- Utilize abstract thinking and analytical reasoning in the analysis and solution of word problems.
- Understand mathematical techniques used in the explanation of physical phenomena.
- Utilize calculation techniques with mathematically formulated principles.
- Identify and assess quantitative information in terms of physical principles.

PHYS 152L College Physics Laboratory II (1) KCC AA/DY

3 hours lab per week

Prerequisite(s): Credit or concurrent enrollment in PHYS 152.

PHYS 152L is designed to provide the students a hands-on experience in the experimental analysis, physical observation and measurements in electricity, magnetism and geometric optics. The course emphasis is on measurement techniques and analysis of data.

Upon successful completion of PHYS 152L, the student should be able to:

- Give examples of some direct experiences of the concepts and principles covered in the course.
- State and identify the interaction between theory and experiments.
- Design procedures for acquiring information from experimentation.
- Record, analyze, and extract information from data acquired.

PHYS 170L General Physics Lab I (1) KCC AA/DY*3 hours lecture/lab per week**Prerequisite(s): Credit or concurrent enrollment in PHYS 170.*

PHYS 170L is designed to provide the students a hands-on experience in the experimental analysis, physical observation and measurements in mechanics, fluids, heat and thermodynamics. The course emphasis is on error analysis, measurement techniques, and report writing.

Upon successful completion of PHYS 170L, the student should be able to:

- Demonstrate knowledge of some direct experiences of the concepts and principles covered in the course.
- Develop insights into the interaction between theory and experiments.
- Design procedures for acquiring information from experimentation.
- Record, analyze, and extract information from data acquired.
- Demonstrate skills at making quantitative determinations with formulations.
- Use laboratory instruments and equipment.
- Write a technical report.

PHYS 272 General Physics II (3) KCC AA/DP*3 hours lecture per week**Prerequisite(s): PHYS 170; PHYS 170L; MATH 206.*

PHYS 272 is the second course in a two semester sequence of an introductory calculus-based course. The course is a comprehensive introduction to the principles and theories of electricity, magnetism and geometric optics.

Upon successful completion of PHYS 272, the student should be able to:

- Give examples of applications and solve problems to demonstrate knowledge and skills of electricity, magnetism and geometric optics.

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- Identify and explain the concepts and principles related to the electricity, magnetism and geometric optics.
- Identify and define the associations and relationships of the topics treated in the course.
- Utilize abstract thinking and analytical reasoning in the analysis and solution of word problems.
- Identify and use mathematical techniques in the explanation of physical phenomena.
- Utilize calculation techniques with mathematically formulated principles.
- Identify and assess quantitative information in terms of physical principles.

PHYS 272L General Physics Lab II (1) KCC AA/DY*3 hours lab per week**Prerequisite(s): PHYS 170; PHYS 170L; credit or concurrent enrollment in PHYS 272.*

PHYS 272L is designed to provide the students a hands-on experience in the experimental analysis, physical observation and measurements in electricity, magnetism and geometric optics. The course emphasis is on error analysis, measurement techniques, and report writing.

Upon successful completion of PHYS 272L, the student should be able to:

- Give examples of direct experiences of the concepts and principles covered in the course.
- State and identify the interaction between theory and experiments.
- Design procedures for acquiring information from experimentation.
- Record, analyze, and extract information from data acquired.
- Make quantitative determinations with formulations.
- Use laboratory instruments and equipment.
- Write a technical report.

PHYS 274 General Physics III (3) KCC AA/DP*3 hours lecture per week**Prerequisite(s): PHYS 272; PHYS 272L; credit or concurrent enrollment in MATH 231.*

PHYS 274 focuses on the study of physical optics, special relativity, quantum mechanics, solid-state physics, atomic and nuclear physics, and elementary particle physics.

Upon successful completion of PHYS 274, the student should be able to:

- Demonstrate knowledge of the wave properties of light as demonstrated in interference and diffraction.
- Demonstrate knowledge and understanding of the theory of special relativity and its effects: time dilation and space contraction.
- Demonstrate knowledge and understanding of the particlelike properties of EM radiation as demonstrated in the Photoelectric Effect and Compton Scattering.
- Demonstrate knowledge of the theory of the wavelike properties of matter known as quantum theory.
- Demonstrate knowledge of statistical physics.
- Demonstrate knowledge of the different properties of solids such as crystal structure, thermal and magnetic properties, and superconductivity.
- Demonstrate knowledge of semiconductor theory and devices such as diodes and transistors.
- Demonstrate knowledge of the nuclear structure, radioactive decay, nuclear interactions and its applications.
- Demonstrate knowledge of the different elementary particles and their role in the forces that hold matter together.
- Utilize abstract thinking and analytical reasoning in the analysis of word problems.
- Utilize calculation techniques in the analysis of dynamics problems in engineering.

PHYSIOLOGY**PHYL 160 The Science of Sleep (3) KCC AA/DB and KCC AS/NS***3 hours lecture per week**Recommended Preparation: BIOL 130, BIOL 171 or ZOOL 142.*

PHYL 160 is an introduction to the science of sleep, sleep research and medical disorders associated with sleep. This course will include an overview of the anatomy and physiology of the central nervous system as it is related to sleep. The student will learn how to recognize healthy sleep and will be introduced to the methods sleep researchers use to diagnose both healthy and disordered sleep.

Upon successful completion of PHYL 160, the student should be able to:

- Demonstrate knowledge of how sleep is regarded in different cultures and environments.
- Demonstrate knowledge of the history of sleep research.
- Demonstrate an understanding of how sleep changes from infancy to the elderly.
- Demonstrate an understanding of polysomnography and other methods of analysis of sleep quality.
- Demonstrate knowledge of the anatomy and physiology of sleep centers in the central nervous system.
- Demonstrate knowledge of the neuroendocines and their effects on sleep.
- Demonstrate an understanding of sleep stages, patterns and other features associated with sleep and sleep disorders.
- Utilize and interpret physiological signals to evaluate sleep quality and sleep disorders.
- Demonstrate an understanding of how researchers evaluate sleep quality and sleep disorders.
- Demonstrate an understanding of current theory of why we sleep and possible causes of sleep disorders.

POLITICAL SCIENCE

POLS 110 Introduction to Political Science (3)

KCC AA/DS and KCC AS/SS

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100; qualification for MATH 24.

POLS 110 is an introduction to the scope of political science, approaches to the discipline, its methods, tools, problems and processes.

Upon successful completion of POLS 110, the student should be able to:

- Demonstrate an appreciation and interest in politics.
- Acquire the necessary political skills to cope with political life.
- Develop a political perspective which one may apply to contemporary social problems and institutions.
- Show the beginnings of a world view and a sensitivity to political and socio-economic events in other parts of the world.
- Show a personal growth which reflects a sharpened sense of one's own values in relation to political issues.

POLS 120 Introduction to World Politics (3) KCC

AA/DS and KCC AS/SS

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100; qualification for MATH 24.

POLS 120 focuses on power and contemporary world politics since 1945 with emphasis on U.S. role.

Upon successful completion of POLS 120, the student should be able to:

- Understand the relationships between nation states and the development of the international political order.
- Understand the role of international organizations and law.

- Understand the different modes of conflict resolution.
- Apply knowledge of foreign strategic and economic policy to analyzing current events.
- Understand politics of Europe, Middle East, Asia, Africa and the Americas.

POLS 130 Introduction to American Politics (3)

KCC AA/DS and KCC AS/SS

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100; qualification for MATH 24.

POLS 130 focuses on American political processes and institutions as seen through alternate interpretations.

Upon successful completion of POLS 130, the student should be able to:

- Weigh critically the political alternatives and develop a sense of political efficacy and identity.
- Perceive the linkages between the political, economic, and social areas.
- Analyze current American political problems and propose possible solutions.
- Demonstrate a systems oriented approach to study political life in America.
- Propose viable political alternatives and strategies for change.

POLS 171 Introduction to Political Futures (3)

KCC AA/DS and KCC AS/SS

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100; qualification for MATH 24.

Using science, fact and fiction, POLS 171 shows how past and present images of the future influence people's actions.

Upon successful completion of POLS 171, the student should be able to:

- Demonstrate an appreciation and awareness of futuristic studies.
- Develop futuristic interdisciplinary

perspectives which may be applied to contemporary socio-economic and political problems and institutions.

- Demonstrate the ability to understand various cosmologies (a branch of philosophy dealing with the origins, processes, and structure of the universe) and epistemologies (a division of philosophy that investigates the nature and origins of knowledge) of the past and present as well as the future.
- Exercise the ability to critically analyze the material's empirical and theoretical concepts. The student should be able to formulate and express values and opinions orally and in writing.
- Formulate alternative perspectives of personal and career choices.

POLS 207 Politics of the Middle East (3) KCC AA/DS Spring

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100.

POLS 207 explores the political systems of the countries in the Middle East with an emphasis on understanding the political, social, and cultural forces shaping contemporary politics in the region.

Upon successful completion of POLS 207, the student should be able to:

- Describe the basic political structures of the countries in the Middle East.
- Identify the various social and cultural factors, such as tribalism, religion, traditionalism and modernism, which impact on political decision-making.
- Identify some of the major political issues in the region such as the Palestinian problem, Islamic fundamentalism, energy, impact of westernization and modernization on traditional societies, and regional conflicts.
- Evaluate the role of the superpowers in the Middle East.
- Explain the diversity within contemporary Middle East societies.
- Express ideas and opinions clearly in writing.

POLS 270 Public Policy (3) KCC AA/DS and KCC AS/SS

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100; qualification for MATH 24.

POLS 270 is a study of how various issues and problems of society become the basis of public policies.

Upon successful completion of POLS 270, the student should be able to:

- Demonstrate an appreciation and awareness of public policy analysis. Various public policy methodologies will be introduced to the student.
- Develop an interdisciplinary perspective which may apply to contemporary socio-economic and political problems.
- Demonstrate critical thinking by being able to evaluate different approaches to the study of public policy.
- Critically analyze the material's empirical and theoretical concepts. The student should be able to formulate and express values and opinions orally and in writing.

PSYCHOLOGY

PSY 100 Survey of Psychology (3) KCC AA/DS and KCC AS/SS

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100; qualification for MATH 24

PSY 100 focuses on basic concepts and principles of psychology in the areas of individual differences, motivation, emotion, perception, learning, methodology, test and measurement, history, abnormal, physiology and applied psychology. This course emphasizes lectures, multimedia presentations, discussions and experimentation

Upon successful completion of PSY 100, the student should be able to:

- Describe the nature of psychology as a discipline, explaining why psychology is a science, and listing the primary objectives of psychology: describing, understanding, predicting, and controlling behavior and mental processes.
- Identify the concepts, language, and major theories of the discipline to account for psychological phenomena.
- Compare and contrast the major perspectives of psychology: behavioral, neuroscience, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural.
- Identify overarching themes and persistent questions in psychology.
- Describe the basic methodology of the science of psychology, explaining different research methods used by psychologists.
- Use critical thinking and reasoning effectively, identifying and evaluating the source, context, and credibility of information, evaluating popular media reports regarding psychological research.
- State how psychological principles can be used to explain social issues and inform public policy and recognize that sociocultural contexts may influence the application of psychological principles in solving social problems.
- Apply psychological concepts, theories, and research findings as these relate to everyday life.
- Explain the necessity for ethical behavior in all aspects of the science and practice of psychology.
- Communicate effectively, by listening accurately and actively and articulating ideas thoughtfully and purposefully.
- Demonstrate the ability to collaborate effectively.

PSY 170 Psychology of Adjustment (3) KCC AA/DS and KCC AS/SS

3 hours lecture per week

Prerequisite(s): Qualification for ENG 100 and MATH 24.

Comment: PSY 170 may not be substituted for the PSY 100 prerequisite for 200-level PSY courses.

PSY 170 provides students with an opportunity to explore their own thoughts, feelings, and behavior as these apply to the students' daily lives. Students examine their belief systems, ascertain the credibility of such systems, and then reaffirm, modify, or discontinue their patterns of coping. This course allows students to discover tools for personal growth and gives them knowledge of the psychological resources that are available in the community. In this capacity, this course allows students to better understand who they are so that they may be better able to understand the attitudes and behaviors exhibited by others. It opens students up to new ideas and new ways of doing things in a non-threatening manner. PSY 170 is instructional in nature and is not intended to be a course in group therapy.

Upon successful completion of PSY 170, the student should be able to:

- Compare and contrast different models of human behavior.
- Develop a concept of self through self-examination, values clarification, and so on.
- Identify normal and abnormal coping mechanisms.
- Describe how effective and ineffective coping behaviors are manifested.
- List a variety of available psychological resources in the community and the basic method(s) they employ.
- Define and distinguish between the different roles one must take to live a responsible life within the family, community, and the general society.
- Express ideas and opinions clearly in writing.

PSY 202 Psychology of Women (3) KCC AA/DS

3 hours lecture per week

Prerequisite(s): PSY 100; qualification for ENG 100; qualification for MATH 24.

Comment: PSY 202 is cross-listed as WS 202.

PSY 202 is a survey of contemporary theoretical and research issues relevant to the psychological development and functioning of women. Topics covered in PSY 202 include the following: gender differences in biology, personality, behavior and development. Multicultural perspectives are emphasized.

Upon successful completion of PSY 202, the student should be able to:

- Describe the nature of psychology of women as a discipline.
- Compare and contrast the major perspectives of psychology—behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural—so as to demonstrate how these perspectives relate to the psychology of women.
- Identify overarching themes and persistent questions in psychology of women, by focusing on theoretical perspectives regarding the development of functioning of women, as well as by demonstrating knowledge regarding contemporary psychological research on gender differences in biology, personality, behavior, and development.
- Use critical thinking to analyze material related to the psychology of women, by identifying and evaluating the source, context, and credibility of information, evaluating popular media reports of psychological research related to gender, and by distinguishing amongst assumptions, emotional appeals, speculations, and defensible evidence.
- State how psychological principles can be used to explain social issues related to gender and inform public policy.
- Explain the necessity for ethical behavior in all aspects of the science and practice of psychology.

- Demonstrate effective interpersonal communication skills, by listening accurately and actively, and by articulating ideas thoughtfully and purposefully.
- Demonstrate the ability to collaborate effectively, by working with groups to complete projects and by interacting effectively and sensitively with people from diverse backgrounds and cultural perspectives.
- Apply psychological principles to promote personal development by incorporating feedback for improved performance and by reflecting on one's experiences, thereby finding meaning in them.

PSY 212 Survey of Research Methods (3) KCC AA/DS

3 hours lecture per week

Prerequisite(s): PSY 100; qualification for ENG 100 and MATH 24.

Recommended Preparation: Qualification for MATH 103.

PSY 212 provides an overview of research design strategies used in psychological research. It also covers descriptive statistics and introduces the student to some basic inferential statistics. Statistical knowledge is applied through the use of appropriate computer software to conduct statistical analyses. The course furnishes students with the fundamentals of research that all psychology majors should be aware of, regardless of whether they plan to pursue a research career. Emphasis is placed on the critical evaluation of psychological research as it is reported in the popular media and research periodicals.

Upon successful completion of PSY 212, the student should be able to:

- Explain the uses of descriptive statistics.
- Generate descriptive statistics from a given data set.
- Explain the uses of inferential statistics.
- Use a statistical computer software program to perform simple analyses such as t tests and chi square tests.

- Differentiate between basic research designs and the different types of evidence that are obtained from different methods.
- Critically analyze psychological literature.
- Express ideas and opinions clearly, both orally and in writing.

PSY 230 Introduction to Psychobiology (3) KCC AA/DB

3 hours lecture per week

Prerequisite(s): PSY 100; qualification for ENG 100; qualification for MATH 24.

PSY 230 surveys the relationship between behavior and biology. This course emphasizes the structure and function of the central nervous system along with the ethological analyses of behavior.

Upon successful completion of PSY 230, the student should be able to:

- Describe the nature of psychobiology as a discipline.
- Identify overarching themes and persistent questions in psychobiology, by describing the interaction of heredity and environment, mind and body as it applies to the science of psychobiology
- Define the basic structures and functions of the central nervous system and describe how these structures and functions relate to observable behavior.
- Describe the basic methodology of the science of psychobiology, by explaining the different research methods used by psychobiologists, by demonstrating knowledge regarding the methodologies used to explore the physiological bases of behavior, and by describing how various research designs address different types of questions and hypotheses.
- Use critical thinking to review material related to psychobiology, by identifying and evaluating the source, context, and credibility of information.
- State the necessity for ethical behavior in all aspects of the science and practice of psychobiology.
- Communicate effectively, by listening

accurately and actively, and by articulating ideas thoughtfully and purposefully.

PSY 240 Developmental Psychology (3) KCC AA/DS

3 hours lecture per week

Prerequisite(s): PSY 100; qualification for ENG 100; qualification for MATH 24.

In PSY 240, emphasis is on the psychological processes underlying development of the person from infancy through adulthood.

Upon successful completion of PSY 240, the student should be able to:

- Demonstrate awareness and understanding of the developmental process from conception through adulthood.
- Demonstrate awareness and understanding of the various stages of development.
- Demonstrate an elementary awareness and understanding of the methodology of developmental psychology.
- Demonstrate an ability to critically review material about developmental psychology.

PSY 260 Psychology of Personality (3) KCC AA/DS

3 hours lecture per week

Prerequisite(s): PSY 100; qualification for ENG 100 and MATH 24.

PSY 260 is a survey of major theoretical approaches to the scientific study of personality. Topics include development, assessment, change, and cultural-social determinants. Current research issues are emphasized.

Upon successful completion of PSY 260, the student should be able to:

- Compare and contrast the basic theoretical approaches to personality, and their

corresponding views of development, change, and assessment.

- Distinguish between the various methodological approaches to personality research.
- Apply critical analysis to personality research literature.
- Express ideas and opinions clearly, both orally and in writing.

PSY 270 Introduction to Clinical Psychology (3)

KCC AA/DS

3 hours lecture per week

Prerequisite(s): PSY 100; qualification for ENG 100; qualification for MATH 24.

PSY 270 is a survey of types of psychological problems, methods of assessment and types of treatment, along with the history and theories of behavior problems.

Upon successful completion of PSY 270, the student should be able to:

- Demonstrate understanding of the development and maintenance of pathological behavior.
- Demonstrate awareness and basic understanding of the types of assessment and treatment of pathological behavior.
- Demonstrate an ability to critically review material concerning clinical psychology.