



COURSE OUTLINE: PNG121 - ANATOM/PHYSIOLOGY II

Prepared: Allan Kary

Approved: Bob Chapman, Chair, Health

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| Course Code: Title | PNG121: ANATOMY AND PHYSIOLOGY II |
| Program Number: Name | 3024: PRACTICAL NURSING |
| Department: | PRACTICAL NURSING |
| Academic Year: | 2022-2023 |
| Course Description: | This course is a continuation of Anatomy and Physiology I and will further examine the relationship of body structures and their functions. Understanding of the remaining body systems will provide you with knowledge and understanding about how these systems work together to carry on complex functions within the human body. |
| Total Credits: | 3 |
| Hours/Week: | 3 |
| Total Hours: | 42 |
| Prerequisites: | There are no pre-requisites for this course. |
| Corequisites: | PNG127, PNG131 |
| Substitutes: | OEL647 |
| This course is a pre-requisite for: | FIT203, FIT206, FIT207, PNG233, PNG234, PNG238 |
| Vocational Learning Outcomes (VLO's) addressed in this course: | <p>3024 - PRACTICAL NURSING</p> <p>VLO 1 Communicate therapeutically with clients and members of the health care team.</p> <p>VLO 2 Assess clients across the life span, in a systematic and holistic manner.</p> <p>VLO 3 Plan safe and competent nursing care, based upon a thorough analysis of available data and evidence-informed practice guidelines.</p> <p>VLO 5 Evaluate the outcomes resulting from all interventions in the nurse-client interaction and modify the plan of care as required.</p> <p>VLO 7 Adapt to a variety of health care settings, using different leadership skills and styles as appropriate to each setting.</p> |
| Essential Employability Skills (EES) addressed in this course: | <p>EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.</p> <p>EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>EES 4 Apply a systematic approach to solve problems.</p> <p>EES 5 Use a variety of thinking skills to anticipate and solve problems.</p> <p>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.</p> |



- EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.
- EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.
- EES 10 Manage the use of time and other resources to complete projects.
- EES 11 Take responsibility for ones own actions, decisions, and consequences.

General Education Themes: Science and Technology

Course Evaluation: Passing Grade: 60%, C

A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.

Books and Required Resources:

Essentials of Human Anatomy and Physiology by Marieb, E. N
 Publisher: Pearson Education Edition: 13th
 ISBN: 9780137324599
 Paper

Essentials of Human Anatomy and Physiology by Marieb, E.N.
 Publisher: Pearson Education Edition: 13th
 ISBN: 9780135624425
 Ebook

Course Outcomes and Learning Objectives:

| Course Outcome 1 | Learning Objectives for Course Outcome 1 |
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| 1. Use the appropriate terminology related to organization, structure and function of the human body. | 1.1 Review the selected key terms (vocabulary)for each specific area of study/systems. |
| Course Outcome 2 | Learning Objectives for Course Outcome 2 |
| 2. Endocrine System. | 2.1 Distinguish between endocrine and exocrine glands and their functions. 2.2 Distinguish between hormones and prostaglandins and their functions. 2.3 Describe the basic control and actions of the hypothalamus, pituitary, thyroid and parathyroid, adrenal, pancreatic and male and female gonadal hormones. |
| Course Outcome 3 | Learning Objectives for Course Outcome 3 |
| 3. Cardiovascular System. | 3.1 Describe the general characteristics of blood. 3.2 Identify the functions of the components of blood eg. red blood cells, white blood cells, platelets, plasma. 3.3 Explain the basis of blood typing and why it is important. 3.4 Describe the sequence of events in hemostasis. 3.5 Identify the structures of the heart and blood vessels and their functions. 3.6 Describe the basic mechanism of circulation within the body. 3.7 Identify the major veins and arteries and the organs/body regions they supply. |



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| | <p>3.8 Trace the flow of blood through the heart.</p> <p>3.9 Describe the events of the cardiac cycle.</p> <p>3.10 Identify parts of the heart conduction system and their functions.</p> <p>3.11 Define pulse and blood pressure.</p> <p>3.12 Explain how heart rate and blood pressure are regulated.</p> |
| Course Outcome 4 | Learning Objectives for Course Outcome 4 |
| 4. Lymphatic System/Immune System. | <p>4.1 Explain the source of lymph.</p> <p>4.2 Identify the lymphatic capillaries and vessels.</p> <p>4.3 Describe the lymphatic pathway.</p> <p>4.4 Identify the location and function of lymph nodes, spleen and thymus gland.</p> <p>4.5 Compare non-specific resistance and specific resistance against disease.</p> <p>4.6 Explain the mechanism of cell-mediated immunity.</p> <p>4.7 Explain the mechanism of antibody-mediated immunity.</p> <p>4.8 Compare primary and secondary immune responses.</p> |
| Course Outcome 5 | Learning Objectives for Course Outcome 5 |
| 5. Respiratory System. | <p>5.1 List the parts of the respiratory system and identify their functions.</p> <p>5.2 Describe the mechanism of breathing.</p> <p>5.3 Explain how breathing is controlled.</p> <p>5.4 Describe the basic respiratory volumes and the significance of each.</p> <p>5.5 Identify the factors that influence breathing and their effect.</p> <p>5.6 Describe the mechanism of gas exchange in the lungs and body tissues.</p> <p>5.7 Explain how oxygen and carbon dioxide are transported by the blood.</p> |
| Course Outcome 6 | Learning Objectives for Course Outcome 6 |
| 6. Digestive System and Metabolism. | <p>6.1 Compare mechanical and chemical digestion.</p> <p>6.2 Describe the role of digestive enzymes.</p> <p>6.3 Identify the structures of the digestive system and their function.</p> <p>6.4 Explain how the end products of digestion are absorbed.</p> <p>6.5 Identify the sources and uses of carbohydrates, lipids, proteins, vitamins and major minerals and electrolytes.</p> <p>6.6 Explain cellular respiration and its importance.</p> |
| Course Outcome 7 | Learning Objectives for Course Outcome 7 |
| 7. Urinary System. | <p>7.1 Name and describe the structure and function of each of the organs of the urinary system.</p> <p>7.2 Name and describe the specific structures of the kidney and their basic functions.</p> <p>7.3 Describe the structure and function of blood supply of the kidney.</p> <p>7.4 Explain how urine is formed.</p> <p>7.5 Name the normal components of urine.</p> <p>7.6 Explain how the kidneys maintain blood plasma</p> |



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| | Course Outcome 8 | Learning Objectives for Course Outcome 8 | | | | | | | | |
| | 8. Reproductive System. | 8.1 Identify and describe the structure and function of the organs of the male reproductive system. 8.2 Describe spermatogenesis. 8.3 Identify and describe the structure and function of the organs of the female reproductive system. 8.4 Describe oogenesis. 8.5 Explain the hormonal control of reproduction in males and females. 8.6 Describe the structure and function of mammary glands. 8.7 Genetics/Inheritance. 8.8 Explain the roles of DNA, genes and chromosomes. 8.9 Describe the basic patterns of inheritance. | | | | | | | | |
| Evaluation Process and Grading System: | <table border="1"> <thead> <tr> <th>Evaluation Type</th> <th>Evaluation Weight</th> </tr> </thead> <tbody> <tr> <td>2 Semester Tests</td> <td>65%</td> </tr> <tr> <td>Article review</td> <td>10%</td> </tr> <tr> <td>Final Exam</td> <td>25%</td> </tr> </tbody> </table> | | Evaluation Type | Evaluation Weight | 2 Semester Tests | 65% | Article review | 10% | Final Exam | 25% |
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| Date: | December 20, 2022 | | | | | | | | | |
| Addendum: | Please refer to the course outline addendum on the Learning Management System for further information. | | | | | | | | | |