



Course Specification

— (Bachelor)

Course Title **Pathophysiology**

Course Code: **NRS 355**

Program: **Bachelor of Nursing**

Department: **Department of Nursing (NRS)**

College: **College of Nursing**

Institution: **Majmaah University**

Version: **V4**

Last Revision Date :**June 2023**



Table of Contents

| | |
|---|---|
| A. General information about the course: | 3 |
| B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods | 4 |
| C. Course Content | 5 |
| D. Students Assessment Activities | 7 |
| E. Learning Resources and Facilities | 7 |
| F. Assessment of Course Quality | 8 |
| G. Specification Approval | 8 |





A. General information about the course:

1. Course Identification

1. Credit hours:(٢ Hours (٢+0+0))

2. Course type

- A. University College Department Track Others
- B. Required Elective

3. Level/year at which this course is offered:(3rd year 5th level)

4. Course general Description:

• This pathophysiology course will provide an in-depth study of the abnormal physiology associated with disease, the pathologic processes (pathogenesis) of disease and how that disease affects the human organism. The pathologies to be studied will be diseases that have the greatest effect on our society, with an emphasis on those complex pathologies that are most commonly encountered by health care providers. The study approach will be around major body systems and common diseases characteristic of those major body systems for the adult and child.

5. Pre-requirements for this course (if any):

NRS 232, NRS 237

6. CO-requirements for this course (if any):

None

7. Course Main Objective(s):

Introduces nursing students to the mechanisms and theories related to the development of disease and alterations in body function of individuals throughout their life span. Common conditions related to functional health patterns, disease transmission, and immunological responses are addressed. In addition, this course will help in identifying nursing systems including community resources that may assist client/family in meeting their self-care demands.

2. Teaching mode (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|----|--|---------------|------------|
| 1 | Traditional classroom | ٣٠ hrs | 100% |
| 2 | E-learning | | |
| 3 | Hybrid <ul style="list-style-type: none"> Traditional classroom | | |





| No | Mode of Instruction | Contact Hours | Percentage |
|----|---------------------|---------------|------------|
| | • E-learning | | |
| 4 | Distance learning | | |
| 5 | Others | | |

3. Contact Hours (based on the academic semester)

| No | Activity | Contact Hours |
|--------------|-------------------|---------------|
| 1. | Lectures | ٢٠ hrs |
| 2. | Laboratory/Studio | |
| 3. | Field | |
| 4. | Tutorial | |
| 5. | Others (specify) | |
| Total | | ٢٠ hrs |

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|------------|---|-----------------------------------|---|--|
| 1.0 | Knowledge and understanding | | | |
| K2.1 | Outline the basic physiologic processes associated with common disease processes. | K2 | Lecture & class discussion, Text book assignments | Quiz, Midterm & Final Exam |
| K2.2 | Identify the risk factors, causes, pathophysiology, clinical manifestations, and diagnostic tests related to concepts of disease across the lifespan. | K2 | Lecture & class discussion, Text book assignments | Quiz, Midterm & Final Exam |
| 2.0 | Skills | | | |
| S4.1 | Perform nurses' role in recognition, assessment and interventions for | S4 | Lecture & class discussion, Text book assignments | Quiz, Midterm & Final Exam, Assignment |





| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|-------------|---|-----------------------------------|---------------------|-------------------------------------|
| | pathophysiological processes. | | | |
| 3.0 | Values, autonomy, and responsibility | | | |
| V2.1 | Establish advanced professional and educational services using appropriate interpersonal, written, communication and critical thinking skills required for successful performance and progress in the profession. | V2 | Group Discussion | Professionalism, Group Discussion & |

C. Course Content

| No | List of Topics | Contact Hours |
|----|---|---------------|
| 1. | Unit 1: Introduction to Pathophysiology <ul style="list-style-type: none"> What is Pathophysiology & Why Study It? Introduction to Cellular Changes | 1 |
| 2. | Unit 2: Inflammation & Healing <ul style="list-style-type: none"> Review of Normal Defenses in the Body, Review of Normal Capillary Exchange, Inflammation, Acute Inflammation, Chronic Inflammation, Treatment of Inflammation, Healing, Example of Inflammation & Healing | 3 |
| 3 | Unit 3: Neoplasms <ul style="list-style-type: none"> Review of Normal Cells, Benign & Malignant Tumors, Malignant Tumors: Cancer, Examples of Malignant Tumors | 2 |
| ٤ | Unit 4: Fluid, Electrolyte, & Acid-Base Imbalances <ul style="list-style-type: none"> Fluid Imbalance Electrolyte Imbalances Acid-Base Imbalance Treatment of Imbalances | 3 |
| ٥ | Unit 5: Cardiovascular and Lymphatic Disorders Review of the Normal Cardiovascular system, Heart Disorders, Vascular Disorders, Shock, Review of the Blood and its disorder, Review of the Lymphatic System, Blood Dyscrasias, Lymphatic Disorders | 3 |
| ٦ | Unit 6: Respiratory Disorders | ٣ |





| | | |
|--------------|--|-----------|
| | <ul style="list-style-type: none"> • Review of Normal Structures in the Respiratory System • General Manifestations of Respiratory Disease • Common Treatment Measures for Respiratory Disorders • Infectious Diseases • Obstructive Lung Diseases • Chronic Obstructive Pulmonary Diseases • Restrictive Lung Disorders • Vascular Disorders <p>Expansion Disorders</p> | |
| Y | <p>Unit 7: Digestive System Disorders</p> <ul style="list-style-type: none"> • Review of the Digestive System • Common Manifestations of Digestive System Disorders • Basic Diagnostic Tests • Common Therapies • Upper Gastrointestinal Tract Disorders • Disorders of the Liver & Pancreas <p>Lower Gastrointestinal Tract Disorder •</p> | 3 |
| 8 | <p>Unit 8: Neurologic Disorders</p> <ul style="list-style-type: none"> • Acute Neurologic Disorders: Review of the Nervous System, General Effects of Neurologic Dysfunction, Acute Neurologic Problems <p>Chronic Neurological Disorders: Congenital Neurologic Disorders, Seizure Disorders, Chronic Degenerative Disorders, Dementia, Mental Disorders, Spinal Cord Problem</p> | 3 |
| 9 | <p>Unit 9: Musculoskeletal Disorders</p> <p>Review of the Musculoskeletal System, Trauma, Bone Disorders, Disorders of Muscle, Tendons, & Ligaments, Joint Disorders, Kyphosis & Lordosis, Scoliosis, Osteomyelitis, Juvenile Rheumatoid Arthritis skin disorder, Acne Vulgaris</p> | 3 |
| 10 | <p>Unit 10: Urinary and Reproductive System Disorders</p> <ul style="list-style-type: none"> • Review of the Urinary System, Incontinence & Retention, Diagnostic Tests, Diuretic Drugs, Dialysis, Disorders of the Urinary System, Urinary Tract Obstructions, Vascular Disorders, Congenital Disorders, Renal Failure, <p>Reproductive System Disorders: Disorders of the Male Reproductive System, Disorders of the Female Reproductive System, Infertility, Sexually Transmitted Diseases</p> | 3 |
| 11 | <p>Unit 11: Congenital & Genetic Disorders</p> <p>Review of Genetic Control, Congenital Anomalies, Genetic Disorders, Developmental Disorders, Diagnostic Tools, Genetic Technology-Down Syndrome</p> | 3 |
| Total | | 30 |





D. Students Assessment Activities

| No | Assessment Activities * | Assessment timing (in week no) | Percentage of Total Assessment Score |
|----|--|---|--------------------------------------|
| 1. | Quiz | 6-7th week | 10% |
| 2. | Midterm Exam | 10 -11th week | 30% |
| 3. | Professionalism & Class Participation | 8th week | 10% |
| 4. | Assignments | 4th and 8th week | 10% |
| 5. | Final Exam | 15 – 16th week | 40% |
| | TOTAL | | 100% |

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

| | |
|--------------------------|---|
| Essential References | <ul style="list-style-type: none"> • VanMeter, K. C., & Hubert, R. J. (2022). Pathophysiology for the Health Professions E-Book. Elsevier Health Sciences. |
| Supportive References | <ul style="list-style-type: none"> • International Journal of Physiology, Pathophysiology and Pharmacology • International Journal of Physiology and Pathophysiology • Journal of Infectious Diseases • Journal of Pathology |
| Electronic Materials | <ul style="list-style-type: none"> • www.sdl.edu.sa • www.emedicine.com • www.medscapeurses.com • www.clinicalkey.com • http://www.unboundmedicine.com/medline/ebm/journal/Pathophysiology |
| Other Learning Materials | The “ADAM” software is available for the cardiac, musculoskeletal and GI systems. |

2. Required Facilities and equipment

| Items | Resources |
|--|--|
| Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) | <ul style="list-style-type: none"> • Lecture rooms should be large enough to accommodate 30 students. |
| Technology Resources (AV, data show, Smart Board, software, etc.) | <ul style="list-style-type: none"> • Every classroom must be equipped with smart or active board, latest Audio-visual aids and computer with internet access. |
| Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list) | <ul style="list-style-type: none"> • Blackboard |





F. Assessment of Course Quality

| Assessment Areas/Issues | Assessor | Assessment Methods |
|---|--|---|
| Effectiveness of teaching | Students | Direct: Course Evaluation Survey Quality of Exam Survey |
| | Faculty | Indirect: CLO Mapping with teaching & assessment. Course Blueprinting Grade Analysis Psychometric Analysis |
| | Peers | ✓ Grade Verification |
| Effectiveness of students assessment | Students | Direct: Course Evaluation Survey Quality of Exam Survey |
| Quality of learning resources | Students / Faculty | ✓ Indirect: Academic advising survey ✓ Direct: Student experience survey |
| The extent to which CLOs have been achieved | Faculty member / Quality assurance committee/ Program Leaders | ✓ Direct assessment outcome analysis ✓ Course report preparation |
| Other | NA | --- |

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods(Direct, Indirect)

G. Specification Approval

| | |
|---------------------------|---------------------------|
| COUNCIL /COMMITTEE | DEPARTMENT COUNCIL |
| REFERENCE NO. | 4 |
| DATE | 19.09.2023 |

