هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

اعتماد
NCAAA
T4
2020

Course Specifications

Course Title:	**Human Genetics in Nursing Practice**
Course Code:	**302 ELEC-2**
Program:	**Bachelor of Science in Nursing**
College:	**College of Nursing**
Institution:	**Jazan University**

Table of Contents

A. Course Identification

1. Credit hours: 2 hours
2. Course type **a.** University ☐ College ☑ Department ☐ Others ☐ **b.** Required ☐ Elective ☑
3. Level/year at which this course is offered: Level 6 / 3rd,year
4. Pre-requisites for this course (if any)**: NUR 212 – 2**
5. Co-requisites for this course (if any)**: None**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**		
2	**Blended**	30	100 %
3	**E-learning**		
4	**Distance learning**		
5	**Other**		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	30
2	**Laboratory/Studio**	
3	**Tutorial**	
4	**Others** (specify)	
	Total	30

B. Course Objectives and Learning Outcomes

1. Course Description

- This course is designed to discuss the central principles of genetics, DNA, RNA and proteins. It focuses on the impact of human genome on nursing practice in terms of ethical and legal issues.

2. Course Main Objective

- The main purpose of this course is to provide nursing students a comprehensive knowledge regarding human genetics and its application in the nursing practice. It focuses on basic Mendelian Genetics, Cytogenetics, Molecular Genetics, Classification of Genetic Diseases, Genetic Testing and Screening.

3. Course Learning Outcomes

CLOs	Aligned PLOs

CLOs		Aligned PLOs
1	**Knowledge and Understanding**	
1.1	Discuss the basic concepts and principles of genetics, cytogenetics and molecular genetics.	**K_1**
1.2	Recognize basic human patterns of biological inheritance and variation within families and within populations.	**K_1**
1.3	Explain the relationship of genetics to health, prevention, screening, diagnostics, selection of treatment, and monitoring of treatment effectiveness.	**K_3**
2	**Skills :**	
2.1	Conduct comprehensive assessments that incorporate knowledge about genetic, environmental, and genomic influences and risk factors.	**S_1**
2.2	Use effective communication skills to process and provide genetics/ genomics information in nursing care of patients, families, and communities.	**S_4**
2.3	Design a holistic approach to nursing care of patients with genetic disorders considering legal and ethical issues, as well as the various factors that influence the patient's ability to use genetic information and services.	**S_5**
3	**Values:**	
3.1	Comply with ethical and legal considerations related to genetic/genomic decision-making.	**V_1**
3.2	Integrate knowledge, skills and values necessary to function as part of an interprofessional team to provide patient-centered collaborative care.	**V_2**

C. Course Content

No	List of Topics	Contact Hours
1	Genetic History and Terminologies.	2
2	Review of Cell Biology and Biochemistry.	2
3	Mendel Genetics and Foundation of Heredity.	2
4	Human Genetics and Classification of Diseases.	2
5	Autosomal, X - Linked and other Genetic disorders.	2
6	Cytogenetics, Chromosomal Structure & Function, Chromosomal Abnormalities.	2
7	Revolution of Molecular Genetics, DNA Replication, Transcription and Translation.	2
8	Genetic Mutation.	2
9	Genetic Testing and Screening.	2
10	Principles of Genetic Counseling.	2
11	Vulnerable Fetus, Birth Defect and Congenital Anomalies.	2
12	Genetics Nursing and Patient History, Future of Nursing.	2
13	Cancer Genetics.	2
14	Genetics, Ethics and Clinical Practice.	2
15	Revision.	2
Total		30

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
1.1	Discuss the core elements of genome architecture, regulation of gene expression, transcription and translation.	Lectures. Seminars(Assignment& Presentation). Problem Based Learning. Collaborative Learning.	Written Examinations. Class participation during oral recitations.
1.2	Recognize basic human patterns of biological inheritance and variation within families and within populations.		
1.3	Explain the relationship of genetics to health, prevention, screening, diagnostics, selection of treatment, and monitoring of treatment effectiveness.		
2.0	**Skills**		
2.1	Design a holistic approach to nursing care of patients with genetic disorders considering legal and ethical issues, as well as the various factors that influence the patient's ability to use genetic information and services.	Lectures. Problem Based Learning. Assignment.	Written Examinations. Class participation during oral recitations.
2.2	Use effective communication skills to process and provide genetics/ genomics information in nursing care of patients, families, and communities.		
2.3	Conduct comprehensive assessments that incorporate knowledge about genetic, environmental, and genomic influences and risk factors.		
3.0	**Values**		
3.1	Comply with ethical and legal considerations related to genetic/genomic decision-making.	Lecture. Brain Storming. Individual Assignment.	Written Examinations. Lectures. Participation in individual and group assignments using rubrics.
3.2	Integrate knowledge, skills and values necessary to function as part of an interprofessional team to provide patient-centered collaborative care.		

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Short Quizzes	5th – 7th Week	10
2	Midterm Examination	10th – 12th Week	25

#	Assessment task*	Week Due	Percentage of Total Assessment Score
3	Participation/Attendance	End of Semester	5
4	Assignment	10th week	10
5	Final Examination	15th week onwards	50

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- 2 hours per week during office hours as posted by concerned academic instructor and counseling staff.

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	▪ Brooker, R. (2018). *Genetics: Analysis and principles*. (6thed.). Mc-Graw Hill Publishing Co. ▪ Lewis, R. (2015). *Human genetics: Concepts and applications*. (11thed.). Mc-Graw Hill Publishing Co.
Essential References Materials	▪ Kasper, C. & Schneidereith, T.A. (2015). Lashley's essentials of clinical genetics in nursing practice. (2nded.). New York: Springer Publishing Co. ▪ Pierce, B.A. (2017). *Genetics: A conceptual approach.* (6thed.). W.H. Freeman. ▪ Klug, W. S. (2015). *Concepts of genetics.* (11thed.). Pearson.
Electronic Materials	▪ https://www.researchgate.net ▪ https://www.myamericannurse.com ▪ https://www.mdpi.com ▪ https://bioethics.georgetown.edu ▪ https://nursingcongress.nursingconference.com ▪ https://www.nlm.nih.gov/portals/healthcare.html
Other Learning Materials	Lecture Notes

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Lecture room for at least 50 students.
Technology Resources (AV, data show, Smart Board, software, etc.)	Internet connections, Data Show or Smart Board.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or	

Item	Resources
attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of Teaching	Program Coordinator Course Coordinator Students	• Students/teacher focus group • Students personal written reflections • Direct Assessments
Achievement of course learning outcomes	Course Coordinator Course Instructor	CLO survey form
Quality of learning resources	Program Coordinator Quality Assurance	Annual Report

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	