

T6. Course Specification (CS)

Institution: Najran University	Date of Report: 1437/1438 2 nd semester
College/Department: College of Medicine	

A. Course Identification and General Information:

1. Course title and code: Human Growth and Development Code: 241 GRD – 5 Section:			
2. Credit hours: 5(4+ 1)			
3. Program(s) in which the course is offered. : Bachelor of Medicine and Bachelor of Surgery. (If general elective available in many programs indicate this rather than list programs)			
4. Name of faculty member responsible for the course: Coordinators: Dr. Mohammed Alkhawanky Co – coordinator: Abuobiada Abusharib			
5. Level/year at which this course is offered: 2 nd Year - 4 th Level			
6. Pre-requisites for this course (if any): According to bylaw			
7. Co-requisites for this course (if any): None			
8. Location : Main campus			
9. Mode of Instruction (mark all that apply)			
a. Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="70%"/>
b. Blended (traditional and online)	<input type="checkbox"/>	What percentage?	<input type="text"/>
c. e-learning	<input type="checkbox"/>	What percentage?	<input type="text"/>
d. Correspondence	<input type="checkbox"/>	What percentage?	<input type="text"/>
f. Other	<input checked="" type="checkbox"/>	What percentage?	<input type="text" value="30 %"/>
Comments: others include BST, Skill lab& SDL			

B. Objectives:

1. What is the main purpose for this course?

By the end of this course the students are expected to be able to :

- 1) Describe basic embryological development
- 2) Identify various developmental aspects of pre- and postnatal life.
- 3) Outline normal milestones of development during infancy, childhood, adolescence, adulthood and senility.
- 4) Identify the antenatal service package for a pregnant lady.
- 5) Calculate the nutritional and caloric requirements of a pregnant lady.
- 6) Describe the genetic basis of human growth and development.

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

- 1) Continuous updating of the information, knowledge and skills included in the course through the continuous search for new knowledge and skills available in recent publications (books, researches, internet and others).
- 2) Continuous improvements in teaching methods to encourage the students to participate effectively in the various academic activities.
- 3) Continuous evaluation of the course content, students performance and establish plans accordingly.

C. Course Description (Note: General description in the form used in the Bulletin or handbook should be attached.

This course gives the students an overview of the different phases of the Human life. It is concerned with the physiology of pregnancy, growth and development in the pre-natal and postnatal periods within which cells, tissues, organs and the body develop as a whole from the fusion of two germ cells. The process starts from gametogenesis through fertilization, implantation and development during embryological and fetal periods. Then follows the development during infancy, childhood, adolescence, adulthood and senility. Moreover, it focuses on health care during these stages of life with special emphasis on pregnancy, nutrition and immunization. In addition, the students will learn about the health care provided to children, adolescents, adults and elderly people.

1. Topics to be Covered

List of Topics	No of Weeks	Contact Hours
Introduction to the course L	0.7%	1(1+0)
Anatomy of male genital system L	0.7%	1 (1+0)

Anatomy of female genital system	L	0.7%	1 (1+0)
DNA structure & organization	L	0.7%	1 (1+0)
Cell cycle & cell division	L	0.7%	1 (1+0)
Spermatogenesis and Oogenesis	L	0.7%	1 (1+0)
Gametogenesis	SDL	2.1%	3 (0+3)
Hormonal control of gametogenesis & menstruation	L	0.7%	1 (1+0)
Endometrial cycle	L	0.7%	1 (1+0)
Fertilization, cleavage	L	0.7%	1 (1+0)
Blastocyst formation & implantation	L	0.7%	1 (1+0)
RNA structures and functions	L	0.7%	1 (1+0)
RNA structures and functions	SDL	2.1%	3 (0+3) SDL
DNA replication	L	0.7%	1 (1+0)
DNA replication	SDL	2.1%	3 (0+3)
Physiological changes of Pregnancy	L	0.7%	1 (1+0)
Pregnancy manifestations	L	0.7%	1 (1+0)
principles of ultrasonography	L	0.7%	1 (1+0)
DNA damage & repair	L	0.7%	1 (1+0)
Bilaminar&trilaminar germ disc	L	0.7%	1 (1+0)
fetal growth assessment	L	0.7%	1 (1+0)
Derivatives of the three germ layers	L	0.7%	1 (1+0)
Fetal folding & external fetal features in 1st trimester	L	0.7%	1 (1+0)
Gene structure and transcription	L	0.7%	1 (1+0)
Gene structure and transcription	SDL	2.1%	3 (0+3) SDL
Nutritional requirements in pregnancy	L	0.7%	1 (1+0)
Late pregnancy manifestations	L	0.7%	1 (1+0)
Placenta functions and fetal circulation	L	0.7%	1 (1+0)
Placenta functions	SDL	2.1%	3 (0+3) SDL
Genetic code and translation	L	0.7%	1(1+0)
Genetic code and translation	SDL	2.1%	3 (0+3) SDL
Placenta, umbilical cord	L	0.7%	1 (1+0)
Amnion & yolk sac	SDL	4.2%	2 (0+6) SDL
Multiple conception (causes & types)	L	0.7%	1 (1+0)
Antenatal care Tutorial	Tutorial	2.1%	3 (0+3)
External fetal features at the 2nd &3rd trimesters	L	1.4%	2 (2+0)

Gene mutation	L	0.7%	1 (1+0)
Intrauterine growth retardation	L	1.4%	2 (2+0)
Congenital anomalies' mechanisms	L	0.7%	1 (1+0)
Feeding & weaning	L	0.7%	1 (1+0)
Normal & abnormal development	L	0.7%	1 (1+0)
Physiological changes in newborn	L	1.4%	2 (2+0)
Regulation of milk production & secretion	L	0.7%	1 (1+0)
Psychological changes in development	L	0.7%	1 (1+0)
Immunization	L	0.7%	1 (1+0)
Growth charts (Paed)	skills lab	2.1%	3 (0+3)
Ossification centers	L	0.7%	1 (1+0)
Prenatal diagnosis of anomalies by imaging	L	0.7%	1 (1+0)
Skill Lab.(Obs)	Skill lab	2.1%	3 (0+3)
Regulation of gene expression	L	0.7%	1 (1+0)
Regulation of gene expression	SDL	4.2%	2 (0+6) SDL
Anatomy of breast (theory & practical tutorial)	Tutorial	1.4%	2 (0+2)
Histology of the breast (theory & practical tutorial)	Tutorial	1.4%	2 (0+2)
Physiology of puberty	L	0.7%	1 (1+0)
Recombinant DNA technology	L	0.7%	1 (1+0)
Aging	L	1.4%	2 (2+0)
Development & anomalies of the breast	L	0.7%	1 (1+0)
Benign conditions of the breast	L	0.7%	1 (1+0)
Lactation	L	0.7%	1 (1+0)
Lactation	SDL	4.2%	2 (0+6) SDL
Ossification centers imaging Practical	Lab	1.4%	2 (0+2)
Neoplastic conditions of the Breast	L	0.7%	1 (1+0)
Benign Breast diseases	L	0.7%	1 (1+0)
Breast Carcinoma	L	0.7%	1 (1+0)
Health problems with ageing	L	0.7%	1 (1+0)
Medical TTT of breast cancer, lactagogous	L	0.7%	1 (1+0)
Practical Breast Pathology	Lab	1.4%	2 (0+2)
Methods of prenatal diagnosis	Seminar	1.4%	2 (0+2)
DNA & RNA Technology	Seminar	1.4%	2 (0+2)
Developmental milestones	Seminar	1.4%	2 (0+2)

2. Course components (total contact hours and credits per semester):								
	Lecture	PBL	Laboratory	Tutorial	Skill Lab.	Seminars	SDL	Total
Contact Hours	52	16	6	6	4	6	13	127
Credit	2.88	0.44	0.16	0.16	0.07	0.16	0.24	3.95

3-Additional private study/learning hours expected for students per week: 0 hours

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy
On the table below are the five NQF Learning Domains, numbered in the left column.
First , insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table).
Second , insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes.
Third , insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
	<p>Description of the knowledge to be acquired: By the end of this course, the student are expected to be able to:</p> <p>1- Describe the anatomy, histopathology and physiology of reproductive organ and process of human growth and development</p>	<p>1-Lectures. 2- Seminars. 3- PBL sessions. 4- Self directed learning.</p>	<p>1- Continuous assessment. 2- Final examination</p>

	2- Recognize the process of fertilization, fetal development, postnatal growth, puberty and aging of human.		
2.0	Cognitive Skills		
	Description of the cognitive skills to be acquired By the end of this course the students are expected to be able to: 3- Explain the common birth defects (anomalies) ,the parameters used to monitor growth in children, the different mechanisms that control the gene expression 4- Identify the symptoms and signs of normal pregnancy.	1- PBL sessions 2- Practical classes. 3) Bedside teaching	1- Continuous assessment. 2) Final Exam.
3.0	Interpersonal Skills & Responsibility		
	<i>By the end of the course the students are expected to be able to:</i> 5- Show ethical conduct in the lectures, practical classes with the staff, colleagues, patients and environment like instruments, benches, and laboratory material.	1)Seminars 2)PBL sessions 3) Practical classes. 4) Bedside teaching	Continuous assessment.
4.0	Communication, Information Technology, Numerical		
	<i>Description of the skills to be developed in this domain: By the end of the course, the students are expected to be able to:</i> 6- Utilize efficiently the different knowledge resources including the library resources and websites.	1- Seminars. 2- PBL sessions. 3- Practical classes	Continuous assessment.

	7- Use computers, projectors and build up power point presentation		
5.0	Psychomotor		
	Description of the psychomotor skills to be developed: By the end of the course the students are expected to be able to: 8- Perform basic clinical assessment for a child and a pregnant mother.	1- Practical classes. 2- Bedside teaching	1- Continuous assessment 2- Final Exam.

5. Schedule of Assessment Tasks for Students During the Semester			
	Assessment task(e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week due	Proportion of Final Assessment
1	Quizzes	All weeks	15%
2	PBL sessions	All weeks	10%
3	Seminars	All weeks	05%
4	Practical exam. OSPE/ OSCE	Last week	20%
5	Final MCQs exam	Last week	50%
	Total		100%

D. Student Academic Counseling and Support

Arrangements for availability of the staff member for individual student consultations and academic advice:

- 1)Allocation of office hours by the departments
- 2)Academic supervision
- 3)Academic surveillance

E. Learning Resources

1. List Required Textbooks:

- 1) Langman's medical embryology. T.W. sadler
- 2) Before we are borne. More &Parsaud.
- 3) Drews: Color atlas of Embryology
- 4) Sadler: Langman's Medical Embryology 11thed

<p>5) Moore: The Developing Human: Clinically Oriented Embryology with Student Online Access 8th ed.</p> <p>6) Bogart: Elsevier's Integrated Anatomy and Embryology 1sted</p> <p>7) Snell: Clinical Embryology for Medical Students 2nded (or latest)</p> <p>8) Gray's anatomy. S. Standring.</p> <p>9) Illustrative General Embryology; M. T. El-Rakhawy.</p> <p>10) Review of medical physiology. William F. Ganong</p> <p>11) Text book of medical physiology. Hall & Guyton</p> <p>12) Concise human physiology . M.Y.Sukkar</p> <p>13) Obstetrics and gynaecology . 10 teachers</p>
2. List Essential References Materials (Journals, Reports, etc.)
3. List Electronic Materials Web Sites, Facebook, Twitter, etc. Saudi digital library
4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

<p>1. Accommodation:</p> <p>1) Lecture room suitable for the number of the students.</p> <p>2) Laboratory (dissection room-DR, physiology, biochemistry, microbiology, pathology, pharmacology and clinical skills) suitable for the number of the students.</p> <p>3) Teaching hospital for bedside teaching.</p>
<p>2. Computing resources:</p> <p>1) Computers, multimedia in lecture room, PBL room and laboratories.</p>
<p>3. Other resources:</p> <p>1) Library supplied with reference text books, electronic resources.</p>

G. Course Evaluation and Improvement Processes:

<p>1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching:</p> <p>1) Completion of course evaluation questionnaire by each student.</p> <p>2) Day to day direct feedback from the students.</p>
<p>2 Other Strategies for Evaluation of Teaching :</p> <p>1) Feedback from colleagues.</p>

2) Class observation by supervisors.
3) Independent assessment of standards achieved by the students.
3 Processes for Improvement of Teaching:
1) Continuous updating of course contents.
2) Regular intra- and interdepartmental meetings where problems are discussed and solutions proposed.
3) Review of recommended teaching strategies.
4) Workshops on teaching methods.
4. Processes for Verifying Standards of Student Achievement:
1) Arrange with another institution to have common test items included in an exam and compare the marks given.
2) Check marking of a sample of student work by an independent faculty member.
5 Action planning for improvement:
Action plan for course improvement will be done according to the feedback about the course from students, other colleagues and the dean.

Name of instructors ____ Large group of academic and clinical staff members ____

Signature : _____ Date Report Completed: ____1st of may 2017_____

Program supervisor: _Dr Mohamed Alzahrani_____

Program coordinator: Dr. Mohamed Elkhawanky__and Dr Abu-Obida Belah_____