



Subject: Human Reproductive System -MSCSEM11501

Type of course: Major

Prerequisite: Basic knowledge of human physiology and human body structure.

Rationale: The human reproductive system's significance helps underscore its critical role in human biology, health-care and society.

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks					Total Marks
CI	T	P		Theory Marks		Practical Marks		CA	
				ESE	MSE	V	P	ALA	
4	0	0	4	60	30	10	00	50	150

Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA- Active Learning Activities.

Continuous Assessment:

Sr. No	Active Learning Activities	Marks
1	Review paper writing Faculty will Assign topic for review paper writing and group of students will write and upload on GMIU web Portal.	10
2	Field Visit Students have to visit a laboratory related to the IVF and report including photograph need to upload on GMIU web portal.	10
3	Project Preparation Student need to perform project after discussion with faculty and report need to upload on GMIU web Portal.	10



4	Effect of junk food and modern life style Students have to analyze the effect of modern life style on human health and body changes and they have to aware about it and submit report including photo on GMIU web Portal.	10
5	Scientific structure preparation Faculty will assign the specific topic and students will prepare scientific structure and upload on GMIU web Portal.	10
Total		50

Course Content:

Unit No	Course content	Hrs	% Weightage
1	<p>Chapter-1: Anatomy of the Male Reproductive System</p> <p>1. Overview of the Male Reproductive System</p> <ul style="list-style-type: none"> • Structure and function of male reproductive organs. • Testes: Anatomy, spermatogenesis, and hormonal regulation. • Epididymis, vas deferens, and ejaculatory ducts. <p>2. Accessory Glands and External Genitalia</p> <ul style="list-style-type: none"> • Seminal vesicles, prostate gland, and bulbourethral glands. • Penis: Anatomy, erectile function, and ejaculation. • Scrotum and thermoregulation of testes. <p>3. Male Reproductive Physiology</p> <ul style="list-style-type: none"> • Hormonal regulation of male reproduction. • Spermatogenesis and sperm maturation. • Male sexual response and fertility. 	15	25%



2	<p>Chapter-2: Anatomy of the Female Reproductive System</p> <ol style="list-style-type: none"> 1. Overview of the Female Reproductive System <ul style="list-style-type: none"> • Structure and function of female reproductive organs. • Ovaries: Anatomy, oogenesis, and hormonal regulation. • Fallopian tubes: Structure and role in fertilization. 2. Uterus and Vagina <ul style="list-style-type: none"> • Uterus: Anatomy, menstrual cycle, and pregnancy. • Cervix: Structure and function. • Vagina: Anatomy, physiology, and reproductive role. 3. Female External Genitalia and Mammary Glands <ul style="list-style-type: none"> • Vulva: Structure and components. • Mammary glands: Anatomy and lactation. • Hormonal regulation of female reproductive organs. 	15	25%
3	<p>Chapter-3: Embryology and Development</p> <ol style="list-style-type: none"> 1. Development of the Reproductive System <ul style="list-style-type: none"> • Embryological development of the male and female reproductive systems. • Genetic and hormonal influences on sexual differentiation. • Congenital anomalies of the reproductive system. 2. Placenta and Fetal Development <ul style="list-style-type: none"> • Structure and function of the placenta. • Stages of fetal development. • Maternal adaptations to pregnancy. 	15	25%
4	<p>Chapter-4: Clinical Anatomy and Reproductive Health</p> <ol style="list-style-type: none"> 1. Diagnostic Imaging and Techniques <ul style="list-style-type: none"> • Ultrasound, MRI, and CT in reproductive anatomy. • Hysterosalpingography and laparoscopy. • Diagnostic techniques for reproductive health 	15	25%



Suggested Specification table with Marks (Theory):60

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	30%	50%	10%	10%	-	-

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Course Outcome:

After learning the course, the students should be able to:	
CO1	Comprehend the structural and functional aspects of male reproductive systems
CO2	Understand the structural and functional aspects of female reproductive systems
CO3	Correlate human reproductive system and embryology.
CO4	Integrate anatomical knowledge with clinical and embryological applications.

Instructional Method:

The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory

The internal evaluation will be done on the basis of Active Learning Assignment

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in laboratory.



Reference Books:

- 1) Gray's Anatomy for Students by Richard L. Drake, A. Wayne Vogl, and Adam W. M. Mitchell.
- 2) Human Embryology and Developmental Biology by Bruce M. Carlson.
- 3) Textbook of Clinical Embryology by Kevin Coward and Dagan Wells.
- 4) Langman's Medical Embryology by T. W. Sadler.
- 5) The Female Reproductive System by Susan L. Sinnott.
- 6) The Male Reproductive System by Susan L. Sinnott.
- 7) Human Reproductive Biology by Richard E. Jones and Kristin H. Lopez.
- 8) Clinical Reproductive Medicine and Surgery by Tommaso Falcone and William W. Hurd.
- 9) Williams Gynecology by Joseph I. Schaffer, Barbara L. Hoffman, John O. Schorge, and Lisa M. Halvorson.

