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| **FALL 2021**<br>**Course Number: GS11 1011**<br>Credit Hours: 1<br>Meeting Location (Building/Room # or WebEx/Zoom):<br>MSB B.612 (unless otherwise specified) | Program Required Course: _X_ Yes ____ No<br>Approval Code _X__ Yes ____ No<br>**(If yes,** the Course Director or the Course Designee will provide the approval code.)<br>Audit Permitted: _____ Yes __X__ No<br>Classes Begin: August 19, 2021<br>Classes End: December 9, 2021<br>Final Exam Week: December 9, 2021 |

**Class Meeting Schedule:**

| Day | Time |
|---|---|
| Thursdays | 10-11:30 am |


**Course Director:**
Meagan Choates, MS, CGC
Associate Professor, Department of OB/GYN and Reproductive Sciences
McGovern Medical School, UTHealth
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Claire Singletary, MS, CGC
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McGovern Medical School, UTHealth
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**NOTE:** Office hours are available on request. Please email me to arrange a time to meet.

**Instructor/s:**

1. Meagan Choates, MS, CGC
   McGovern Medical School
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2. Dr. Claire Hulsebosch
   McGovern Medical School
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3. Katie Shields, MS
   McGovern Medical School
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4. Myla Ashfaq, MS, CGC
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**Course description**:
This course provides an introduction to normal embryological development of the major body systems. The presented topics will create a foundation on which students can receive information on abnormal development relevant to genetic disease. In addition, students are expected to consider how these concepts can be communicated to a patient in a clear, concise manner by developing education materials for use in a genetic counseling session.

Any WebEx recordings that will be utilized in lieu of a live lecture can be found in the Google Drive: Curriculum Class of 2023 > Embryology

**Textbook/Supplemental Reading Materials** (if any)

- Moore and Persaud (2015) The Developing Human, 10th edition, ISBN # 978-03223313384
  - Available online: https://libguides.library.tmc.edu/McGovernMed/books
  - Available on GC Google Drive

**Course Objective/s:**

Upon successful completion of this course, students will appreciate both normal and abnormal embryological development of the major body systems

***Specific Learning Objectives*:**

1. Appreciate normal embryological development of the major body systems
2. Consider how these concepts can be communicated to a patient in a clear, concise manner
3. Develop verbal and visual education materials for use in a genetic counseling session
4. Have a foundation on which to receive information on abnormal development, relevant to genetic disease

**Student responsibilities and expectations:**

Students enrolled in this course will be expected to perform the following activities each week.

1. Read the chapters/articles assigned by the facilitator(s).
2. Complete assignments.
3. Actively participate in class discussions.

Students are expected to complete all assigned reading material prior to class. While you may work and discuss all course materials and assignments in groups, assignments must be your own. Plagiarism and failure to properly cite scientific literature and other sources will not be tolerated and are grounds for dismissal from the course and further GSBS disciplinary action. Cheating or engaging in unethical behavior during examinations (quizzes and final) will be grounds for dismissal from the course without credit and further GSBS disciplinary action.

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|---|---|
| **Grading System:** Letter Grade (A-F)<br>A: 90-100%<br>B: 80-89%<br>C: 65-79%<br>F: <65% | |
| **Student Assessment and Grading Criteria** : | |
| Patient Education Assignment 1 (15%) | When providing information to patients regarding abnormal development relevant to genetic disease, it is important to also be able to compare this to the normal, expected development for context. Providing descriptions of normal development of body systems in a clear, concise manner is important to your patients' overall understanding of their own or their child's condition. |
| Patient Education Assignment 2 (15%) | |
| Final Exam Prep Assignment (20%) | This assignment serves as an additional opportunity to begin synthesizing the information presented in this course in away that may help you prepare fo the final exam. This assignment can be accessed/submitted via Canvas. |
| Midterm Exam – 30 questions (25%) | Each test will evaluate the understanding of the information presented in the course to date. The exams will be administered through Canvas, and will utilize LockDown Broswer software (functional with Windows, Mac, or iPad). |
| Final Exam – 60 questions (25%) | |

**ASSIGNMENT DESCRIPTIONS**

- **Patient Education Assignments:** Please describe how normal development occurs and what changes with abnormal development in relation to your assigned abnormality as you would to a patient ($10^{th}$ grade education level). You are not trying to teach a patient embryology; you are trying to teach a patient how a birth defect formed in their baby. This should be recorded as an audio file. In addition, you should create a visual aid that would enhance your verbal description to a patient. Please refer to grading rubric below for required criteria for these two assignments.
    - **Patient Education Assignment 1: Work in Pairs**

| Students | Assigned Abnormality |
|---|---|
| Latonya & Jordan | Molar pregnancy |
| Madeline & Jasmine | Spina bifida |
| Erin & Cindy | Anencephaly |
| Yusra & Tessa | Gastroschisis |
| Jack & Emily | Atrioventricular Septal Defect |

    - **Patient Education Assignment 2: Work Individually**

| Student | Abnormality | Student | Abnormality |
|---|---|---|---|
| Latonya | Microtia | Emily | Hypospadias |
| Madeline | Chorioretinal coloboma | Tessa | Syndactyly |
| Erin | Horeshoe kidney | Cindy | Omphalocele |
| Yusra | Ventricular septal defect | Jasmine | Clubfoot |
| Jack | Cleft lip | Jordan | Cleft palate |

**Rubric for Patient Education Assignments:** Provide a description of normal development in a clear, concise manner along with description of abnormal development of a specific birth defect.

| **Audio Recording** (8 points total) | **Yes** | **No** |
|---|---|---|
| Use of appropriate tone and pace | 1 | 0 |
| Use of accessible language (appropriate word choice – 10th grade level) | 1 | 0 |
| Clear description of normal development | 1 | 0 |
| Correct description of normal development | 2 | 1 |
| Clear description of abnormal development | 1 | 0 |
| Correct description of abnormal development | 2 | 1 |
| **Visual Aid (**6 points total) | | |
| Correct and clear illustration of normal development | 2 | 1 |
| Correct and clear illustration of abnormal development | 2 | 1 |
| Cohesion with verbal description | 1 | 0 |
| Use of accessible language and diagrams for patient | 1 | 0 |
| **Time** (1 point total) | | |
| Turned in on time | 0.5 | 0 |
| Recording at or less than 5 min | 0.5 | 0 |

**Total** (out of 15 points): _____

**Guide for LockDown Broswer:**

Watch this video to get a basic understanding of LockDown Browser:
https://www.respondus.com/products/lockdown-browser/student-movie.shtml

Here is a Quick Start Guide that details similar information in written format:
https://web.respondus.com/wp-content/uploads/2019/08/RLDB-QuickStartGuide-Instructure-Student.pdf

Download and install LockDown Browser to your device (Windows computer, Mac computer, or iPad device) from this link: https://download.respondus.com/lockdown/download.php?id=448845687

Once Installed and Ready to Take Exam:

- Start LockDown Browser application
- Log into to Canvas like you usually do
- Navigate to the quiz

LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted. Note: You won't be able to access a quiz that requires LockDown Browser with a standard web browser. If this is tried, an error message will indicate that

the test requires the use of LockDown Browser. Simply start LockDown Browser and navigate back to the exam to continue.

**CLASS SCHEDULE**

| Day/Date | Duration (Hr) | Lecture Topic | Lecturer/s |
|---|---|---|---|
| **8/19/21** | 10:00am-11:30am | Early Development: Weeks 1-2<br>*Reading: Chapters 2-3, 7* | Meagan Choates |
| **8/26/21** | *10:30am-12:00am | Early Development: Weeks 3-4<br>*Readings: Chapters 4-5* | Meagan Choates |
| **9/2/21** | 10:00am-11:30am | Formation of Neural Tube, Brain, Face<br>*Readings: Chapters 17, 9* | Meagan Choates |
| **9/9/21** | 10:00am-11:30am | Cardiovascular Development<br>*Readings: Chapter 13* | Dr. Hulsebosch |
| **9/16/21** | 10:00am-11:30am | Lung and GI Development<br>*Readings: Chapters 8, 10-11* | Meagan Choates |
| **9/23/21** | 10:00am-11:30am | Urogenital Development<br>*Readings: Chapter 12* | Meagan Choates |
| **9/30/21** | 10:00am-11:30am | Somites, Skeletal System, Limbs<br>*Chapters 14, 16* | Meagan Choates |
| **10/7/21**<br>No "Live" Class | 10:00am-11:30am | Review of Development Weeks 4-8<br>*Chapter 5*<br>**Patient Education Assignment I Due** | Dr. Hulsebosch<br>(WEBEX RECORDING) |
| **10/14/21** | 10:00am-11:30am | **MIDTERM** | |
| **10/21/21** | 10:00am-11:30am | Pharyngeal Arches I<br>*Chapter 9* | Meagan Choates |
| **10/28/21** | 10:00am-11:30am | Pharyngeal Arches II<br>*Chapter 9* | Meagan Choates |
| **11/4/21**<br>No "Live" Class | 10:00am-11:30am | Review of Development Weeks 9 – Birth<br>*Chapter 6*<br>**Patient Education Assignment II Due** | Dr. Hulsebosch<br>(WEBEX RECORDING) |
| **11/11/21** | 10:00am-11:30am | Teratogens I | Katie Shields |
| **11/18/21** | 10:00am-11:30am | Teratogens II – Clinical Applications | Myla Ashfaq |
| **11/25/21** | **THANKSGIVING BREAK** | | |
| **12/2/21** | 10:00am-11:30am | **Patient Education Assignment Presentations** | Claire Singeltary |
| **12/9/21** | 10:00am-11:30am | **FINAL EXAM**<br>Final Exam Prep Assignment Due | |