Program Required Course: <u>X</u> Yes No	
Approval Code <u>X</u> Yes <u>No</u>	
(If yes, the Course Director or the Course	
Designee will provide the approval code.)	
Audit Permitted: Yes <u>X</u> No	
Classes Begin: August 19, 2021	
Classes End: December 9, 2021	
Final Exam Week: December 9, 2021	

Class Meeting Schedule:

Day	Time
Thursdays	10-11:30 am

Course Director:	Instructor/s:	
Meagan Choates, MS, CGC		
Associate Professor, Department of OB/GYN and	1. Meagan Choates, MS, CGC	
Reproductive Sciences	McGovern Medical School	
McGovern Medical School, UTHealth	meagan.giles@uth.tmc.edu	
Email Address: meagan.giles@uth.tmc.edu	2. Dr. Claire Hulsebosch	
Contact Number: 512-636-6857	McGovern Medical School	
	<u>claire.hulsebosch@uth.tmc.edu</u>	
Claire Singletary, MS, CGC	3. Katie Shields, MS	
Professor and Director, Genetic Counseling Program,	McGovern Medical School	
Department of Pediatrics and OB/GYN and Reproductive	kathleen.shields@uth.tmc.edu	
Sciences	4. Myla Ashfaq, MS, CGC	
McGovern Medical School, UTHealth	McGovern Medical School	
Email address: claire.n.singletary@uth.tmc.edu	myla.ashfaq@uth.tmc.edu	
Contact number: 713-500-5599		
NOTE: Office hours are available on request. Please email		
me to arrange a time to meet.		

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 courseling 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: <u>https://libguides.library.tmc.edu/McGovernMed/books</u>
 - \circ $\;$ 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.

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		
Patient Education Assignment 2 (15%)	own or their child's condition.		
	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		
Final Exam Prep Assignment (20%)	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		
Final Exam – 60 questions (25%)	Broswer software (functional with Windows, Mac, or iPad).		

ASSIGNMENT DESCRIPTIONS

- Patient Education Assignments: Please describe how normal development occurs and what changes with abnormal development in relation to your assigned abnormality <u>as you would to a patient</u> (10th 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

<u>Rubric for Patient Education Assignments</u>: 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	1	0
(appropriate word choice – 10 th grade level)		
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: <u>https://download.respondus.com/lockdown/download.php?id=448845687</u>

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.

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

CLASS SCHEDULE