

**Honors 300N: From Conception to Birth (4 hrs)**  
**TTh 1:00-2:25PM in SCI Room 212**  
**Spring 2019**  
**Course Syllabus**



**Instructor:** Dr. Michelle McWhorter

**Phone:** x6483

**Office Hours:** Wednesday 10:30AM-12:30PM

Thursdays 10:30-11:30 AM

Fridays 8:15-9:15 AM

Additional hours by appointment

**Office:** 367 Barbara Deer Kuss Science Ctr

**Email:** [mmcwhorter@wittenberg.edu](mailto:mmcwhorter@wittenberg.edu)

**Required Textbook/Materials:**

Sylvia S. Mader and Michael Windelspecht. 2018. Human Biology. 15th ed. McGraw-Hill Publishing. 575 pp. CONNECT access code required. ISBN: 9781260828733 (online access code)

Scott Gilbert and Clara Pinto-Correia. 2017. Fear, Wonder, and Science in the New Age of Reproductive Biotechnology. Columbia University Press. New York. 261 pp. ISBN: 9780231170949 (hard copy) or 9780231544580 (e-book).

**Course Overview:**

Have you ever wondered how you developed in the womb? This course will discuss the major concepts in human embryo and fetal development including fertility, conception, organ formation, and birth. Significant emphasis will also be placed on the bioethical issues associated with the human embryo or fetus including birth control, when personhood begins, genetic modification, selection against disease, and environmental impacts on embryonic development. For some bioethics topics, special guests who are experts in these fields of study will be present to facilitate our discussion/debate. Students will be expected to write a research paper on a reproductive technology topic of their choosing. Course will NOT count towards the requirements for the Biology major.

**Course Learning Outcomes:**

1. Students will recognize common vocabulary words associated with human embryos
2. Students will locate & collect resources to help them write a research paper on a bioethical topic of their choosing
3. Students will read, discuss, and debate bioethical issues surrounding the human embryo
4. Students will compose a research paper that discusses the scientific and bioethical aspects of a topic dealing with human embryology or reproductive technology.

**Course Policies and Procedures:**

**Attendance:** Attendance is expected for this course; however, you are all adults capable of making your own decisions. Two important things to remember: (1) Due to the nature of the course topic, there

will be material covered in lecture that may not be covered in your textbook. If you miss class, you will still be responsible for that material. (2) Class participation and attendance accounts for 50 pts (5%) of your grade. Therefore, excessive absences in class will affect your grade adversely. If you are a member of a traveling team and expect that you will need to miss class due to your participation, please contact me ASAP. I also reserve the right to administer pop quizzes at my discretion. If you are not present for the pop quiz, there are NO make-ups. Grades for any pop quiz will be rolled into your class attendance and participation portion of your grade.

**Exam attendance:** Attendance at exams is MANDATORY! Unless you receive approval BEFORE the exam, absence from an exam will result in a zero. If you have an excused absence (i.e. sporting event), please let me know at least 1 week in advance so that we can schedule a time and place for your exam. You MUST take the exam PRIOR to the scheduled time. Any student arriving late to the exam will NOT be given extra time to complete the exam.

**Late assignments:** For every day that an assignment is handed-in late, there will be a 10% deduction (this includes weekends). Once the assignment has been handed back to the class, there will no credit given for the assignment.

**Time Commitment:** For each credit hour of classroom or direct faculty instruction, students are expected to engage in two hours of out of class course related work each week for approximately fifteen weeks. A four credit hour course requires eight hours per week of out of class work.

**Communication outside of class:** I expect that you will check your Wittenberg email at least once per 24 hour period. Any communication outside of class time will be via email, so please check your Wittenberg email. If you have another preferred email (other than Wittenberg), you should have your Wittenberg email forwarded to that account. You will be responsible for any and all communications via email. These may sometimes be good communications, like the cancellation of class. Likewise, you can expect that I will check my email at least once every 24 hour period.

**Cell phones:** TURN OFF YOUR CELL PHONE prior to entering class!!!! If a cell phone rings during class, I reserve the right to answer! ☺

**Academic honesty:** All Wittenberg students are held to a Code of Academic Integrity. ALL academic work submitted at Wittenberg will carry the following honor statement:

*"I affirm that my work upholds the highest standards of honesty and academic integrity at Wittenberg, and I have neither given nor received any unauthorized assistance"*

I STRONGLY encourage you to read the entire Code of Academic Integrity ([www4.wittenberg.edu/academics/academicintegrity](http://www4.wittenberg.edu/academics/academicintegrity)). Any work that is handed-in **MUST** be your own work (thoughts, ideas, words, etc). Whether intended or not, plagiarism will not be tolerated in this course. You **MUST** cite someone else's work whenever you use their idea or image by **including citations in any written work submitted in this course**. Failure to do so is plagiarism. Any plagiarism or other academic dishonesty will be dealt with according to provisions set forth in the Wittenberg Code of Academic Integrity. Specifics regarding the expectations for individual assignments will be discussed when the assignment is introduced.

**Disabilities statement:**

Wittenberg University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, learning,

chronic health, physical, hearing, vision and neurological, or temporary medical conditions, etc.) Please, let me know immediately so that we can privately discuss options. To establish reasonable accommodations, you must register with Accessibility Services by contacting Jamie Rippey, the Director of Accessibility Services at 937-327-7870 or by email at [rippeyj@wittenberg.edu](mailto:rippeyj@wittenberg.edu) . Please note that services are confidential and may take time to put into place, and are not retroactive. The Accessibility Services Office is located in the Office of Academic Services COMPASS Sweet Success Center, Thomas Library on the first floor. Walk-in appointments are welcome 8 AM to 5 PM, Monday through Friday.

**Miscellaneous ground rules:** I firmly believe that YOU are the only person in charge of YOUR education. I will do whatever I can to make your learning experience in this course as fun and enjoyable as possible. You will be expected to follow the “Golden Rule” in class, especially during class discussions!!!! You should ALWAYS treat others how you would want to be treated. I will NOT tolerate demeaning comments during class. You will be asked to leave and will receive ZERO credit for any activities you missed that day.

**Syllabus Change Statement:** I reserve the right to adjust this syllabus and content to meet the needs of students and to address course outcomes. In the event of substantive changes, students will be notified via an announcement in class, email, or in Moodle.

**Tentative Course Schedule (Subject to change):**

<b><u>Week of:</u></b>	<b><u>Course Topics</u></b>	<b><u>Notes</u></b>
<b>Jan 7</b>	Course overview; what is a cell?	
<b>Jan 14</b>	Cell reproduction	
<b>Jan 21</b>	Sexual reproduction & hormones	<i>Faculty retreat- No class Tuesday; paper topics due Library research day</i>
<b>Jan 28</b>	Male & female reproductive systems	
<b>Sept 19</b>	Fertilization	
<b>Feb 4</b>	Controlling human fertility	<i>Annotated literature cited page due</i>
<b>Feb 11</b>	Early development	<i>Exam #1</i>
<b>Feb 18</b>	Early development-cont.	
<b>Feb 25</b>	Human genetics	<i>Outline of paper with updated Literature Cited due</i>
<b>Mar 4</b>	<b>SPRING BREAK</b>	
<b>Mar 11</b>	Human Genetics- cont.	
<b>Mar 18</b>	CRISPR & gene editing/therapy	<i>Rough draft of paper due</i>
<b>Mar 25</b>	Gastrulation and morphogenesis	<i>Exam #2</i>
<b>Apr 1</b>	Morphogenesis	
<b>Apr 8</b>	Organogenesis	
<b>Apr 15</b>	Fetal development	
<b>Apr 22</b>	Labor and birth	<i>Final paper due</i>
<b>Apr 29</b>	Birth- cont.	

**FINAL EXAM**      8:00-11:00 AM on Tuesday, May 7 in SCI Rm 211

## **COURSE ASSESSMENTS/GRADING CRITERIA (1000 pts total):**

### **In-Class Exams**

**2 x 100 pts=200 pts**

Throughout the semester there will be two in-class exams that will encompass previously covered lecture and reading materials. There will be multiple choice, short answer, and essay questions on these exams. Details regarding format and what course material will be covered in each of the exams will be discussed as the exam approaches. *Course learning outcomes: 1 & 3*

### **Out of class assignments (aka homework)**

**250 pts**

*LearnSmart/CONNECT assignments*

*100 pts*

For each chapter/section reading assignment, you will need to complete the assigned reading in the eReader version of your textbook (CONNECT). Please note that if you wish to purchase a loose-leaf version of the book, you can do so for \$25. But you will still need to purchase the CONNECT access code. The eReader version of the textbook has interactive features and quizzes that are designed to test your knowledge as you read. There are also associated practice questions that will need to be completed.

*Course learning outcome: 1*

*Discussion preparation and/or reflection assignments*      *150 pts*

For almost all topics covered in this course, there will be an article that we will read and discuss. You will be expected to complete homework assignments to either prepare for the discussion and/or reflect on the discussion. *Course learning outcome: 3*

### **Final research paper project**

**350 pts**

*Annotated works cited*

*25 pts*

*Outline of paper (with updated literature cited page)*

*25 pts*

*Discussion article and leading class discussion*

*25 pts*

*Rough draft*

*75 pts*

*Final paper*

*200 pts*

During the semester, each of you will be expected to complete research on a topic of interest relating to reproductive technologies and/or the human embryo. There will be several pre-final assignments for this semester-long project. Your final paper is expected to discuss the science of your topic and the bioethical and societal issues that it might encompass. More information regarding the criteria for this presentation and paper will be introduced a little later this semester. *Course learning outcomes: 2 & 4*

### **Class attendance and participation**

**50 pts**

Your overall class attendance and participation, especially for in-class discussions and in-class assignments, will also be a component of your grade. Since your participation in class is dependent upon attendance, failure to attend classes will adversely affect this component of your grade. Also, note that any pop quizzes will be rolled into this component of your grade. An attendance & participation rubric is located on the next page; this will be used to calculate this portion of your grade. *Course learning outcome: 3*

### **Cumulative final exam**

**150 pts**

The cumulative final exam will take place at the regularly scheduled final exam time for the course (8-11AM on Tuesday, May 7). This exam will be of similar format to other exams given in the course. For the cumulative material, however, the exam questions will be based on course information that I would like you to remember in several years (not quite as detail oriented as other in class exams). Again, details regarding this exam will be given as the end of the semester approaches. *Course learning outcomes: 1 & 3*

**\*\*\* ALL WRITTEN ASSIGNMENTS IN THIS COURSE SHOULD BE TYPED AND STAPLED AND MAY NEED TO BE UPLOADED TO MOODLE\*\*\***

### ***Attendance and Participation Rubric***

Criteria					
Points	4	3	2	1	Points
<b>Attendance/Promptness</b>	You are <b>always</b> prompt and regularly attend class	You are late to class once every 2 weeks and/or miss more than 1 class every 3 weeks	You miss more than 1 class every 2 weeks and/or are late to class more than once every 2 weeks	You miss 1 class every week and/or are frequently late to class	X 3
<b>Participation/Engagement</b>	You are <b>always</b> on task and actively contributing by asking/ answering substantive questions	You are <b>usually</b> on task and <b>usually</b> actively involved	You are <b>occasionally</b> on task and <b>occasionally</b> actively involved	You are <b>rarely</b> on task and <b>rarely</b> actively involved	X 5
<b>Preparation</b>	You are <b>always</b> prepared for class	You are <b>usually</b> prepared for class	You are <b>occasionally</b> prepared for class	You are <b>rarely</b> prepared for class	X 2.5
<b>Listening/Behavior</b>	You <b>always</b> listen when others talk and you <b>never</b> display disruptive behavior during class	You <b>usually</b> listen when others talk and <b>rarely</b> display disruptive behavior during class	You <b>occasionally</b> listen when others talk and you <b>occasionally</b> display disruptive behavior during class	You <b>rarely</b> listen when others talk and you <b>frequently</b> disrupt class at least once through your behavior	X 2
					/out of 50 pts

### **Grading Scale: (Total points out of 1000)**

970-1000	A+	770-799	C+	> 600 pts	F
920-969	A	730-769	C		
900-919	A-	700-729	C-	<b>***Note that the point values listed are MINIMUM values necessary for each letter grade and that final grades are the sole discretion of the course professor.</b>	
870-899	B+	670-699	D+		
830-869	B	630-669	D		
800-829	B-	600-629	D-		

### **Tentative Due Dates:**

#### **In-Class Exams**

Feb 14  
Mar 28

#### **Final Exam**

8:00-11:00AM on Tuesday, May 7

#### **Final research project**

Topics	Jan 22
Annotated literature cited	Feb 5
Outline	Feb 28
Rough draft of paper	Mar 21
Article and leading class discussion	1 week prior to the discussion date
Final paper	Apr 25