

*Master of Science  
in General Biology*

## Course Syllabus

### BIO6043 Development and Reproductive Biology (3 credits)

Fall 2018

#### 1. General information:

##### 1.1 Contact information:

*Instructor (for nontechnical assistance)*

Dr. David Chevalier  
dchevalier@biology.msstate.edu  
Phone: (662) 648 9782

Since it is an online class, there are no office hours. However you can email or call the instructor at anytime.

Emails and calls will be answered by the of the next business day.

*Technical questions or problems about Black Board:*

Tracy Craven (Instructional Technology Manager for the Center for Distance Education)  
tcraven@distance.msstate.edu  
Phone: (662) 325 8374

*Technical questions or problem about Proctortrack*

<http://support.proctortrack.com/>  
1-844-753-2020

##### 1.2 Course Description:

This class is three hours video and online. It is a study of reproduction and development from gametes through birth in mammals; focusing on stages, anatomy, physiology, mechanisms, genetics. (Intended for K-12 science teachers. Course cannot be used to satisfy degree requirements in a non-distance degree program).

##### 1.3 Prerequisites:

The Prerequisites are BIO 6013 and BIO 8033 or consent of instructor.

#### 1.4 Learning objectives:

Upon completion of this class, student will be familiarized with the basic fundamentals of reproductive and developmental biology including:

- structure of the gametes
- fertilization in mammals
- external fertilization in sea urchin
- early steps of embryo development in both insects and mammals
- regeneration process in animals
- establishment and function of the germ line
- establishment and function of the 3 germ layers
- formation of the reproductive organs in mammals

#### 1.5 Class Schedule:

This class is an online class. So you are required to have access to a computer that connects to the Internet. The course materials will be accessed through MyCourses (<http://myCourses.msstate.edu>) and MyMedia (<http://mymedia.msstate.edu/>), which require that you have a MSU NetID and password. Each topic discussed in this course will have lectures to listen to and recommended reading from the book.

#### 1.6 Text Book:

The text book for the course is “Developmental Biology, Eleventh Edition” by Scott F. Gilbert. Additional material can be found for the text book at <http://11e.devbio.com/>. The text book is required for the class.

#### 1.7 Class Website:

MyCourses (<https://mycourses.msstate.edu/webct/entryPageIns.dowebct>) and MyMedia (<http://mymedia.msstate.edu/>) will be used to post the weekly lecture.

MyCourses will be used to:

- make announcements
- post the grades
- take the weekly online quiz and the exams
- ask questions to the instructor and other students

### 1.8 Discussion board:

The discussion board threads are an important part of the online class learning experience. The discussion board threads may be initiated by you as well as by the instructor for many of the topics covered in the course. You are required to participate regularly in the discussion board sessions. Within these sessions, you will be required to read other student comments and post remarks, in addition to placing additional comments and questions that are beneficial or of interest to the entire class. Effective use of the bulletin board will include clarification of content, student interaction and discussion of pertinent content information, and sharing of additional helpful information (e.g. website links, current research reviews). The boards will be monitored regularly. Please refer to the netiquette rules for the discussion board.

## **2. Grading**

### 2.1 Grades:

Your grade in this course will be based on a total of 450 points, broken down as follows:

Exams: 3 at 100 points each 300 points

Weekly lecture quizzes: 12 at 10 points each (lowest 2 quizzes dropped) 100 points

Chapter summary 50 points

TOTAL 450 points

The following scale will be used to determine your grades:

A: 405 to 450 points

B: 360 to 404.99 points

C: 315 to 359.99 points

D: 270 to 314.99 points

F: below 270 points

All the grades will be reported into the Grade Center tool within MyCourses.

### 2.2 Exam schedule:

All exams will be opened beginning at 8 AM CST on Wednesday and closed at 11:59 PM CST on Sunday.

**ALL THE EXAM WILL BE PROCTORED USING THE PROCTORTRACK PROCTORING SYSTEM!**

- *Exam I:*

The first exam is scheduled between 8 AM CST on Wednesday September 19, 2018 and 11:59 PM CST on Sunday September 23, 2018. The first exam will be on lectures 1 through 4.

*- Exam II:*

The second exam is scheduled between 8 AM CST on Wednesday October 31, 2018 and 11:59 PM CST on Sunday November 4, 2018. The second exam will be on lectures 5 through 8.

*- Final exam*

The final exam is scheduled between 8 AM CST on Wednesday December 5, 2018 and 11:59 PM CST on Sunday December 9, 2018. The final exam will be on lectures 9 through 12.

The exams will consist mostly of multiple-choice, matching and true/false questions, but will also contain short answer and essay questions. All exams will be taken in a restricted time frame. You will have 90 minutes to take each exam. See rules in section 3.

2.3 Quizzes:

All quizzes will be opened beginning at 8 AM CST on Wednesday and closed at 11:59 PM CST on Sunday.

**ALL THE EXAM WILL BE PROCTORED USING THE PROCTORTRACK PROCTORING SYSTEM!**

Please see the last page for the quiz schedule and topic.

The quizzes will consist of multiple-choice, matching and true/false questions. All quizzes will be taken in a restricted time frame. You will have 15 minutes to take each quiz. See rules in section 3.

2.4 Chapter summary:

You will be required to turn in a 8-10 pages double spaced summary of the following text book chapter:

chapter 11: only the Early amphibian development part of the chapter (page 333 to 344

The summary of this chapter is due on Sunday October 14, 2018 at 11:59 PM CST.

The chapter summary must be submitted using MyCourses. A word document must be attached, and the file should be named as followed:

studentlastname-studentfirstname-Chapter 11.doc

The chapter summary will not be graded if the file is named incorrectly or not submitted using the assignments tools of MyCourses.

Formatting instructions and grading rubric will be posted on MyCourses. Five points will be deducted for each formatting mistake.

Plagiarism is considered an academic misconduct, which can result in serious consequences. Penalties may be as severe as receiving a grade of “F” in this course, suspension, and/or possible expulsion.

### 2.5 Extra Credit Policy:

I do not provide extra credit assignments.

### 2.6 Missed Assignments:

#### *- Exam I and II:*

Exams I and II can be made up within one week of the scheduled date IF the instructor is notified within 24 hours of the missed exam date. You are responsible for notifying the instructor. A valid written excuse must be presented before you will be allowed to make up an exam. A valid excuse includes medical issues (you or your immediate family) or other documented and approved conflicts. All decisions about what constitutes a ‘documented and approved’ excuse will be made by the instructor on a case-by-case basis. The make-up exam may not be the same format as the exam given during the scheduled exam time.

#### *- Final exam:*

The final exam can not be made up.

#### *- Quizzes:*

The weekly lecture quiz can not be made up.

#### *- Chapter summary:*

No extension will be granted for the chapter summary.

### **3 Classroom and assignments behavior and rules:**

The class is an on-line class. Every week, lectures will be posted. You are required to listen to the lectures.

All assignments (exams and quizzes) will be taken in a restricted time frame.

**ALL THE ASSIGNMENTS WILL BE PROCTORED USING THE PROCTOTRACK PROCTORING SYSTEM!**

- You will not be allowed to use any material to complete your assignments. This includes notes, textbooks, any outside material, the internet, or textbook websites.
- You will not be allowed to communicate with anyone (including other students) during the quizzes. Communication includes speaking, using chat boards, discussion boards, blogs, texts, phone, and email.
- You will not be allowed to discuss the assignments with other students during the time the assignments are opened.
- no one else in the room while taking the exams/quizzes

- enough light in the room
- you are not allowed to open other softwares/programs/windows/browsers while taking the exams and quizzes
- no use of electronic devices

Please read the manual about the proctortrack, which can be found in the "Proctortrack student manual" tab on Blackboard.

Finally, as a reminder, all the exams/quizzes are reviewed.

#### **4 Additional Help:**

If you are struggling with the class, you may contact:

- the Office of Student Support Services (<http://www.msstate.edu/dept/sss/>): Montgomery Hall, Phone 325-3335
- the Learning Center (<http://www.tlc.msstate.edu/index.php>): Allen Hall 267, phone 325-2957

In addition, you are welcome to come and talk to me during my office hours or email me about questions or problems with the course.

#### **5. Students Support Services:**

Students with disabilities should contact the Office of Student Support Services at <http://www.msstate.edu/dept/sss/> for special accommodations.

#### **6. Academic misconduct:**

Even though this is a distance education course, you are still responsible to uphold to the MSU Honor Code and to abide by all honesty policies in place by MSU. You are expected to do your own work. Academic misconduct (cheating, plagiarism, forgery, etc) of any form can result in serious consequences. Penalties may be as severe as receiving a grade of "F" in this course, suspension, and/or possible expulsion. Faculty members and students are responsible for reporting cases of academic misconduct. Reports to the Academic Honesty committee are kept for five years for students found guilty of academic dishonesty. Students have the right to appeal decisions by the committee. (<https://www.honorcode.msstate.edu/policy/>).

Cheating will be reported to the Honor Code Office. Cheating includes but not limited to:

- using any materials and internet during the assignments
- communication with anyone during the assignments
- discussing assignments with other students during the time the assignments are opened
- requesting, getting and having quizzes and exams from previous years
- plagiarism

## 7. Student Honor Code:

Mississippi State has an approved Honor Code that applies to all students. The code is as follows: "As a Mississippi State University student, I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do." Upon accepting admission to Mississippi State University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor Code. Student will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the MSU community from the requirements or the processes of the Honor Code. For additional information, please visit: <http://honorcode.msstate.edu/policy>.

## 8. Title IX

MSU is committed to complying with Title IX, a federal law that prohibits discrimination, including violence and harassment, based on sex. This means that MSU's educational programs and activities must be free from sex discrimination, sexual harassment, and other forms of sexual misconduct. If you or someone you know has experienced sex discrimination, sexual violence and/or harassment by any member of the University community, you are encouraged to report the conduct to MSU's Director of Title IX/EEO Programs at 325-8124 or by e-mail to [titleix@msstate.edu](mailto:titleix@msstate.edu). Additional resources are available at <http://www.msstate.edu/web/security>, or at <http://students.msstate.edu/sexualmisconduct/>

## 9. Maroon Alert statement:

Maroon Alert is the emergency notification system of Mississippi State University. It includes several methods of notifying the university community of hazards and concerns, including text messages, emails, alerts on web pages, social media, and sirens. To be fully informed, please verify your Maroon Alert subscription information at [my.msstate.edu](http://my.msstate.edu). To report an on-campus emergency, dial 911 or (662) 325-2121. You can find more information about the Maroon Alert system at <http://www.emergency.msstate.edu/maroon-alert/>

## 10. Service Animal:

In accordance with the Americans with Disabilities Act (ADA) and MSU policy (OP 91.123), qualified service animals are permitted in those generally accessible areas of Harned Hall, including hallways, bathrooms, offices and non-lab classrooms. However, research and teaching laboratory areas are more restricted by their nature. If you need to be accompanied by a service animal for the laboratory portion of this course, please be sure to let [instructor name] know as soon as possible so that we can arrange for an evaluation of the space by MSU Environmental Health & Safety, in conjunction with Disability Support Services.

## Class Schedule (May be modified)

Week	Lecture Topic	Chapter	Lecture quiz	Chapter summary
8/20/18	1. Introduction	/	#1 on lecture 1	
8/27/18	2. Developmental anatomy and Developmental genetics part I	1 and 2	#2 on lecture 2	
9/3/18	3. Developmental genetics part II and cell-cell communication	3 and 4	#3 on lecture 3	
9/10/18	4. Fertilization	7	#4 on lecture 4	
9/17/18	<b>Exam I on lectures 1 to 4</b>	/	<b>No quiz</b>	
9/24/18	5. Early development in selected invertebrates	8 and 10	#5 on lecture 5	
10/1/18	6. Early development in Drosophila and mammals	9 and 12	#6 on lecture 6	
10/8/18	<b>No Lecture -&gt; chapter summary</b>	11	<b>No quiz</b>	Chapter 11: only early amphibian development
10/15/18	7. Introduction to organogenesis and ectoderm	9	#7 on lecture 7	
10/22/18	8. Neural crest and paraxial and intermediate mesoderm	15, 16, and 17	#8 on lecture 8	
10/29/18	<b>Exam II on lectures 5 to 8</b>	/	<b>No quiz</b>	
11/5/18	9. Endoderm and sex determination	5, 18, 22, and 6	#9 on lecture 9	
11/12/18	10. Post embryonic development	21 and 22	#10 on lecture	
11/19/18	11. Germ line	6	#11 on lecture	
11/26/18	12. Medical aspects of developmental biology	23 and 24	#12 on lecture	
12/3/18	<b>Finals on lectures 9 to 12</b>	/	<b>No quiz</b>	

Exams and quizzes will be opened beginning at 8:00 AM CST on Wednesday and close at 11:59 PM CST on Sunday and should be taken on MyCourses.

Summary of the book chapter is due on Sunday October 14, 2018 at 11:59 PM CST and must be submitted using the assignment tool of MyCourses.