

Introduction to Molecular Biology - BIOL/MBIO/PBIO 4843 and 5853

3 Credit Hours

M-W-F 9:30-10:20AM

Room 206, Dale Hall

Prerequisites: (BOT/PBIO 1114 or ZOO/BIOL 1114 or Microbiology 3813 *and* 3812) **AND** (CHEM 3013 or 3053)

Molecular Biology is an exciting field that is constantly changing and developing. The study of biology at a molecular level has resulted in fascinating discoveries that influence our lives daily. The goal of this course is to introduce you to the basics of molecular biology and some of the interesting techniques and approaches that have resulted from the study of how biological molecules work and contribute to the function of living organisms.

Syllabus Agreement: You must sign into CANVAS under the quizzes section and complete the syllabus agreement quiz stating that you understand the course policies. This is required from every student in the class and CANVAS will restrict you from obtaining your exam grades.

Prerequisites: **MBIO 3812, 3813**, Botany/Plant Biology 1114 or Zoology/Biology 1114 (1134) and one course in **organic chemistry**. Helpful: Genetics/Biochemistry/Cell Biology. Without the prerequisites listed above in bold, you must understand that you are at a severe disadvantage in this course. We will touch on concepts that you should have obtained in those classes for which we do not have time in the scope of this course to revisit. If you have not had these prerequisites it is your choice to stay in the class but you must realize you will have to spend more time than others trying to go back and master those concepts. ***I highly discourage students to take MBIO 3812/3813 concurrently with 4843.***

Instructor: **Dr. Liz Karr**, Department of Microbiology and Plant Biology
 Primary Office: Stephenson Research and Technology Center (SRTC), Room 2021
 Main Campus Office: George Lynn Cross Hall Room 516 (*Standard Office Hours*

Here)

Phone: 325-5133

Email: lizkarr@ou.edu (I typically respond very quickly to e-mail. If you fail to receive an e-mail response from me within 24 hours please resend the e-mail, call me, come during office hours, or approach me prior to/immediately following lecture.)

Office Hours: **MWF 10:30-11:20 in GLCH 516**

If you can't come during the listed office hours please e-mail (lizkarr@ou.edu) or call (325-5133) for a request for an appointment. **Be sure to provide at least two possible times that work for you.** If you fail to cancel an appointment, you will not be allowed the privilege of an appointment time in the future. Please note that most appointments will be held in my primary office in SRTC unless notified otherwise.

BOOKS AND MATERIALS:

Textbook (required): *Molecular Biology: Principles and Practice*, 2nd Edition by Michael Cox. **You can find upcoming chapter assignments for each lecture on the Canvas course homepage. You are expected to read the entire chapter listed in preparation for that lecture(s).**

OTHER MATERIALS:

Course Website: You can find an electronic version of your syllabus, including any current semester modifications, at the course Canvas site. I purposely designed the syllabus to be flexible so even though day-to-day topics and reading assignments are given they are subject to change. This

information will be provided in advance on the website and in lecture as the class progresses. Additionally, any supplemental reading material and other course related items would be on Canvas. Be sure to enable notifications within Canvas for alerts of course announcements, etc.

Lecture Format: Lectures will be PowerPoint with live interpretation using a tablet PC. I **WILL NOT** post lecture slides after class. Most the time I will use figures straight from your text. I will post the backbone of the lectures before class. Feel free to print these and take notes on them in class as we move along. Please keep in mind that I will cover a lot of material during class and some of it I will not write on the tablet due to space/time constraints. **You will be responsible for ANYTHING & EVERYTHING we cover in lecture regardless of whether I write it on the slide.** From time to time, I will gather material from various web sites. These sites will be posted on Canvas under the date of the lecture. There will be several occasions that we will cover material not included in your text.

Lecture Recording: Audio recording of lectures is permitted (in fact encouraged). Audio devices can be placed at the front of the room before the start of the lecture. If lecture has begun, please do not disrupt the class by placing your recorder at the front. You will be responsible for picking up your recorder at the end of class. I will not take responsibility for any devices left behind. **Video recording of lectures is NOT PERMITTED at any time.**

Time Investment:

If you want to be successful in this course you must be willing to commit a lot of time, at least 5 to 10 hours per week outside of the classroom. This is an upper division course and as such, it requires a large time investment. The lecture material will be the basis for the course. Reading assignments should be completed before coming to the lecture over that material. This will allow you to follow along in lecture easier. Exams will focus on the lecture material with the book as a resource. There will be material covered in lecture that is not in your textbook. While your text is a great resource, it does not include everything that I feel is important for students to know in this class. Where possible, outside resources will be given for this material. I encourage reviewing your notes daily as soon after lecture as possible. If something is unclear to you during lecture, make a mark beside it so you remember to try to figure it out or prepare a question for the next time. I will spend 5 minutes at the beginning of each lecture giving of an outline of what was covered in the previous lecture. During this time, it would be appropriate to raise those questions.

Grading:

I will base your course grade on your performance across 400 total points. Note that the lowest exam scores will be dropped (this is to include any 0's for missed exams/quizzes, see makeups section below). I summarize these distributions below:

Task	Number	Points (each)	Total Points
Midterm Exams	3 (drop lowest)	100	200
Final Exam	1	125	125
OVERALL			325

Final letter grades will be assigned as follows:

A-293-325 points
 B-260-292 points
 C-228-259 points
 D-197-227.99
 F-<197

There will be no adjustment of grades. There will always be someone within a "few points" of the next higher grade. **Please do not contact me because you did not earn the grade you wanted or**

needed. As much as I would love to give everybody the grade they want or need, the system does not work that way. If you are graduating, please take actions early in the semester if you do not perform well on the first exam. There is no optional extra credit, etc. that you can use to boost your grade. What you earn during the semester is what you will get. Finally, I do not address grade questions via e-mail. You must request an appointment.

Exam Schedule: Wed. Feb 8th, Wed. Mar 8th, Mon. Apr 10th, 4th/Final exam is Friday, May 12th, 8-10 am. Please note these dates. THERE ARE NO MAKEUPS. PERIOD.

Midterm and Final Exam Structure:

Exams will be composed of a mixture of questions that could include matching, true/false, short answer, essay, etc. Questions will cover material presented in the assigned reading and lectures. Keyword lists will be provided for each chapter to aid you in identifying key concepts that may be covered in exams. Answers will be entered onto a provided scantron form, and this form will be handed in after the exam. Each student will be required to check out of the exam using a form of photo identification. **PLEASE BRING PHOTO IDENTIFICATION TO EACH EXAM.** If you forget photo identification, your exam grade will be **reduced by 5%**. Additional policies for exam days are posted on CANVAS in the content section. Each midterm exam will be worth 100 points. Your lowest midterm exam grade will be dropped. The final exam will have 100 points covering any material not previously tested (from exam 3 until the end of semester) and 25 points comprehensive. The format will be like midterm exams. **The final exam is scheduled from 8 am – 10 am on Friday May 12th, 2017 in Dale Hall Room 206. Please check oZone for the date of the final exam. You MUST be present for the final exam, as university policy does not allow the final exam to be taken at any time other than that mentioned above.** Exam keys will be posted on CANVAS along with exam grades. Because all exams are hand graded, it may take several days for your exam grade to be posted. You will not be handed back your original exam copy (see below for instructions on viewing your original exam copy). If following an exam you wish to raise an issue over a particular question you must take this up with me in person during office hours or by appointment. **I will not address these questions via e-mail.** You will also be able to come during that time and review your exams for **one week** following the exam date. If you miss a scheduled appointment or exam viewing time, you will not be permitted these opportunities in the future.

Additional exam concerns/procedures are addressed at the end of the syllabus.

BONUS: There may be bonus points of varying values on each exam and the final. These points will be entered into CANVAS in a bonus line and not calculated into your exam grade. That way if you get a bonus question right on your lowest exam, you still get to utilize those points.

Makeups:

No make up exams or extra credit will be given regardless of the reason. All missed exams will result in a zero. This can be used as your dropped exam.

Exam Re-grades:

If you feel a mistake was made in grading your test, you have the right to request a re-grade. The re-grade request must be made before the next exam. For example, if you would like to request a re-grade for exam 1, it must be requested before exam 2. To request a re-grade you must fill out and sign a re-grade request form (found on CANVAS and available for printing) and return to form to Dr. Karr either in class or by email. Please keep in mind that I reserve the right to re-grade the entire test and this may result in either a higher or lower score.

Inclement Weather & Class Cancellation Policies:

In the event of inclement weather, please check your e-mail, CANVAS, and the local news websites/television stations for notices concerning OFFICIAL cancellations/delays/early closures

(prior to 10:30 am) by the university. If a cancellation/delay/early closure effects the time slot for this class and occurs on an exam day, **the exam will be given during the next official meeting time**. If there is not an official cancellation/delay/early closure then the missed exam will be used as your lowest/dropped exam score.

In the event that I cancel class for any other unforeseen circumstances (very unlikely) this information will be posted outside the classroom in Dale Hall, on the course CANVAS site (unless there is an internet/power outage), and will be the subject of a mass e-mail. If for any reason I have not had the opportunity to give notice and am not present in the classroom after 10:45 am you may consider class officially cancelled. **Exams will not be cancelled or rescheduled for any reason other than an OFFICIAL university cancellations/delays/early closures**. For all other circumstances, I will have a backup plan in place.

Video lectures will be disseminated to students in the event of missed classes. This is an effort to keep the class on track.

Cancellation of Office Hours: If I cancel office hours (either standard or rotating) this information will be posted on CANVAS as well as information pertaining to their rescheduling.

Unusual Illnesses or Emergencies - If you become extremely ill for an extended time or suffer a family emergency, please visit me during office hours **IMMEDIATELY** upon your return to discuss the problem. You may also notify me by phone or e-mail during your time away or before your departure. If you present proper documentation (such as a note from the doctor), I will consider this information when assigning final semester grades. Please keep in mind that I cannot assign a grade without sufficient completion of the course material.

Reasonable accommodations: Accommodations can be made for students with disabilities. *Prior* to receiving any reasonable accommodations, student's must **1)** be officially registered with the Office of Disability Services Students (Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173) and **2)** contact me regarding their needs by the end of the second week of classes.

Registered as 5843: If you are registered in this class using the number 5843 then you are enrolled as a graduate student. This being said you must complete an additional assignment on top of those mentioned above. This is to distinguish you from the undergraduates. This assignment will be a 3 to 5 page (not including your reference list) paper on how you will/might apply what you learn in this class to your thesis/dissertation research project. *These assignments will be due Friday, March 31st by 11:59 pm.* If you would like to discuss your approach, etc. then please contact me. **This assignment does not contribute to your point value in the class.** If the assignment is not completed, then I cannot provide credit for 5843.

Academic misconduct: The university policy on academic misconduct can be found at: <http://integrity.ou.edu/>. Please note that all cases of suspected cheating will be reported to the integrity council. Students also have the ability to report other students.

Student code: A copy of the OU student code can be found at: <http://judicial.ou.edu/content/view/26/30>

Religious Observance: It is the policy of the University to excuse the absences of students that result from religious observances and to reschedule examinations and additional required classwork that may fall on religious holidays, without penalty. You must notify by the end of the second week of classes if you have a conflict with the currently scheduled exams. To my knowledge there are not conflicts with religious holidays.

Adjustments for Pregnancy/Childbirth Related Issues

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact me as soon as possible to discuss. Generally, modifications will be made where medically necessary and similar in scope to accommodations based on temporary disability. Please see <http://www.ou.edu/content/eoo/pregnancyfaqs.html> for commonly asked questions.

Title IX Resources

For any concerns regarding gender-based discrimination, sexual harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a variety of resources, including advocates on-call 24.7, counseling services, mutual no contact orders, scheduling adjustments and disciplinary sanctions against the perpetrator. Please contact the Sexual Misconduct Office 405-325-2215 (8-5) or the Sexual Assault Response Team 405-615-0013 (24.7) to learn more or to report an incident.

Pre-Finals Week Policy: This course is compliant with the current pre-finals week policy. Pre-finals week will be defined as the seven calendar days before the first day of finals. Faculty may cover new course material throughout this week. For specific provisions of the policy please refer to OU's Final Exam Preparation Period policy (<https://apps.hr.ou.edu/FacultyHandbook#4.10>).

Exam policies and procedures:

Seating Policy: We are in a smaller classroom than normal this semester so be advised there will be multiple versions of the exams. To minimize disturbances once the exam has begun, please take the next available seat in the room and start filling from the back of the classroom towards the front. This will leave space towards the front for those that arrive after the exam has been handed out. There will be NO EXCEPTIONS to this seating policy. You will be asked to move if you come in and sit anywhere but in the next available seat.

Exam Instructions:

1. Have your ID out before starting the exam. IDs (Photo-Student ID, License or passport) are required for checking out of the exam. If you forget your ID, there is an automatic 5% deduction in your exam grade.
2. Cell phones & other electronic devices must be turned off and put away for the duration of the exam...NO EXCUSES. Failure to follow this policy will result in a ZERO.
3. The only items allowed at your desk are a writing instrument, your ID, and the exam.
4. The test will consist of the questions and a scantron. The scantron will be turned in at the end of the exam period. Make sure to write your answers legibly!
5. You must hand in your exam when time is called and check out of the classroom with your ID.
6. Please keep your eyes and head directed at your own paper. If I catch you looking around I will assume you are cheating. If I give you the "meet the parents" I'm watching you hand signal then you may consider this a formal warning. After this I will take your exam, you will be assigned a zero, and you will be reported for cheating.

Preparation and Test Taking Tips

1. Focus on lecture material. Use the book as a resource to back up this information. If there is a topic in the text that we do not discuss in class, I will not ask a question regarding it.

2. Utilize animations that are provided for certain chapters to reinforce concepts and provide a visual. Please be aware that some animations do not include all components we cover in lecture or they may include more. Make sure you are aware of everything we cover in lecture and do not worry about details that I did not mention.
3. Keep in mind that I do not write everything down on the tablet when I'm lecturing and that you should be paying close attention and taking note of everything I say.
4. I am not trying to trick you. If something looks like a typo it probably is.
5. Some questions will be direct and others will be critical thinking. They will require you to think about the information we have discussed and apply that knowledge to address a problem or hypothetical situation.
6. If you are asked to list a quantity, then give only that quantity even if there may be more than that number of correct answers.
For example: List 3 presidents that served between 1900 and 2000. There are more than 3 correct answers but you need only provide 3.
You will receive a deduction for listing more than the requested quantity. This leads me to believe you do not know that number of answers so you are throwing more out there in hopes you will get lucky.
I will not ask you to provide 3 answers if there are only 2 possible correct answers.
7. Always provide what you feel is the best possible answer to a question and be concise. It will be obvious to me if you are grasping at straws in hopes you will say the right answer at some point (aka informational vomit). Most of the time students end up providing incorrect information, which results in point deductions.
8. If a question requires you to draw and label something, then I expect the exact level of detail that was provided in lecture.
9. Do not raise your hand to ask a question in an exam and just read me the question. I know what it says. If you need something clarified, then ask specifically. There will be times when I say I cannot answer that because it compromises the integrity of the question.
10. If True/False questions appear on an exam, I will not answer any questions pertaining to them. If it does not make sense to you that should be a clear indicator.
11. Read the questions very carefully and if there are any directions on the exam be sure to pay close attention to them. If you do not follow specific directions related to the overall exam or a specific question you will likely lose points.