

This is a brief outline – **full details for each week are available in the weekly guides** posted on the 305 lab website (bio305lab.wikidot.com).

Please complete the survey on UR Courses prior to Friday Sep. 9th at 4 pm.

Week 1 – Sep. 12 - 13

Introduction to the lab

Preparing the starting plasmid DNA

Due – Assignment 1

Preparation for this week's lab will be extensive – it will likely take you at least 2 hours to work through all the materials and complete the online quiz and assignment 1. Please start by watching the pre-lab videos posted on UR Courses.

Week 2 – Sep. 19 -20

Prepare DNA for recombination - Part 1 – digest plasmids

- digest plasmids
- determine concentration and quality of digested DNA

Due – Assignment 2 *Due day before the lab by midnight via turnitin.com*

Week 3 – Sep. 26 – Sep. 27

Prepare DNA for recombination – Part 2 - Purify the Gene A fragment

- **BEFORE THIS WEEK'S LAB** – each group needs to prepare an agarose gel – this needs to be done the day of your lab between 8:30 am and 2:00 pm. **Book a time slot on UR Courses.**
- run prep-gel for Gene A
- purify Gene A from the agarose gel – bring the kit protocol
- check purified Gene A on gel

Week 4 – Oct. 3 - 4

- plan ligation reactions before lab
- set up ligations
- plan recombinant screening

Due – Assignment 3 *Due day before the lab by midnight via turnitin.com*

Oct. 10 - 11

No lab – Monday is Thanksgiving

Week 5 – Oct. 17 - 18

Transform competent *E. coli* with ligation products

- transform DH5 α with ligation reactions

Due – Assignment 4 *Due in lab at the start of lab.*

Week 6 – Oct. 24 - 25

Analysis of recombinants via restriction mapping – Part 1

- The **day before your lab** each group needs to inoculate cultures for plasmid isolations.
- isolate recombinant plasmids
- set up restriction enzyme digestions of recombinant plasmids

***Due – Assignment 5 *** *Due via turnitin by midnight the day of your lab*

Week 7 – Oct. 31 –Nov. 1

Analysis of recombinants via restriction mapping – Part 2

- **BEFORE THIS WEEK'S LAB** – each group needs to prepare an agarose gel – this needs to be done the day of your lab between 8:30 am and 2:00 pm. **Book a time slot on UR Courses**
- run restricted recombinant plasmids on gels
- identify recombinants from fragment sizes

***Due – Assignment 6 *** *Due day before the lab by midnight via turnitin.com*

Nov. 9 - 10

Flex week or Data analysis and open lab time

If we run into a problem that results in us needing an extra week to finish the project, this will be the extra lab week. Please note that if this happens, the lab report deadlines will also be shifted by a week. If we do not run into any problems, this week's lab will be an open lab from 2:30 to 4:30 on M & T. Please drop in either or both of these days for help with your data analysis and reports.

Nov. 14 – 15

No lab – lab reports are due the day after your regular lab time at 5 pm. Submit via Turnitin.com

Nov. 21 – 22

No lab – optional review session at 2:30

Nov. 28 – 29

Lab Exam.

***Assignment details are on the [305 website](#) ***

***Notebooks are due the day following your lab by 4 pm. ***

Assessment - Lab mark breakdown (30% of the final course grade)

Weekly notebook checks	8
Quizzes & Assignments	4
Report	10
Lab exam	8

Lauri's contact information

Lauri's office is LB 414.4 (across the hall from the Biol 100 lab), or check if I am in the lab doing prep (the door will be open if I am). There are no set office hours; if I am in my office and the door is open, please stop in! I am usually in by 9 am.

Email: biol305lab@gmail.com.

If you can't stop by or want to make an appointment to ensure that I am here when you come by, please email me at the biology 305lab email. This is the best and quickest way to contact me – I will respond to all emails before 6 pm the day they are sent. Overnight emails will get responses first in the morning. I normally do not check my email over the weekend.

There is a lab discussion forum on URCourses. Please post questions on this forum as sometimes your classmates can help more promptly than I can.

Turnitin.com class info

Monday Class ID: 13436525

Tuesday Class ID: 13436532

Password for both: genesrus