

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](http://bio305lab.wikidot.com)).

Please complete the survey on UR Courses prior to Friday Sep. 8th at 4 pm.

## Week 1 – Sep. 11 - 12

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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. 18 -19

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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 URCourses*

## Week 3 – Sep. 25 – Sep. 26

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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. 2 - 3

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- plan ligation reactions before lab
- set up ligations

**\*Due – Assignment 3\*** *Due day before the lab by midnight via URCourses*

## Oct. 9 - 10

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No lab – Monday is Thanksgiving

**\*Due by noon Oct 12<sup>th</sup> – Assignment 4\*** *Please leave your hardcopy in the drop box where you leave your notebook*

## Week 5 – Oct. 16 - 17

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Transform competent *E. coli* with ligation products

- transform DH5 $\alpha$  with ligation reactions

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**Week 6 – Oct. 23 - 24**

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**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 URCourses by midnight the day after your lab*

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**Week 7 – Oct. 30 – 31**

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**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

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**Nov. 6 – 7**

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**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.

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**Nov. 13 – 14**

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

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**Nov. 20 – 21**

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No lab – optional review session at 2:30

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**Nov. 27 – 28**

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Lab Exam.

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

**\*Notebooks are due the day following your lab by noon. \***

Assessment - Lab mark breakdown (40% of the final course grade)

Weekly notebook checks	10
Quizzes & Assignments	10
Report	15
Lab exam	5

## Lauri's contact information

**Office:** LB 414.4

**Email:** for all questions concerning the 266 lab, please email [biol305lab@gmail.com](mailto:biol305lab@gmail.com).

*Emails sent via UR Courses or my U of R email address will NOT be answered in a timely manner, if at all.*

**Office hours:** I will schedule office hours on a weekly basis. Office hours will be posted, by Friday of the preceding week, on UR Courses and on my office door. If you need to see me outside office hours, please email [biol305lab@gmail.com](mailto:biol305lab@gmail.com) for an appointment.

### Email policy:

I will usually 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 respond to 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.

### Other policies

For all policies, please refer to the 305 lab website, [bio305lab.wikidot.com](http://bio305lab.wikidot.com).