<table>
<thead>
<tr>
<th>Week - Date</th>
<th>Lab Activities and Due Dates</th>
<th>Readings</th>
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<tbody>
<tr>
<td>1 – Sept 1,2</td>
<td>1) No labs this week 2) Download and read Feller et al primary journal article re: amylase</td>
<td>See Bio 242 website</td>
</tr>
<tr>
<td>2 – Sept 8,9</td>
<td>Lab Introduction/ Lab Safety / How to Read Primary Literature: Amylase article/ Micro-Bradford Protein Bioassay</td>
<td>3-16; 17-24</td>
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| 3 – Sept 15,16 | α-Amylase Lab 1: Effect of pH on α-Amylase Activity  
**Due:** Protein Bioassay Standard Curve figure, Annotated Bibliography due in lab.  
**Due:** Pre-Lab Problem Set #1 (see Appendix 1) – in lab.                                                                                                                                 | 25-44     |
| 4 – Sept 22, 23 | α-Amylase Lab 2 – Group-Designed Experiments  
**Due:** Draft of Title, Introduction, and Methods of Amylase paper for comments- in lab.                                                                                           | 45-48     |
| 5 – Sept 29,30 | Journal-Style Scientific Writing Workshop  
**please bring all amylase lab materials**  
W – Oct 1 - Amylase Lab HELP SESSION – 7-9 pm in lab                                                                                                                                 | Tutorial 49-50 |
| 6 – Oct 6,7 |  
α-Amylase Lab 3 - Protein Bioinformatics; Comparative Sequence Analysis  
**Peer Review Workshop** with staff 1 hour – time and location TBA  
**W Oct 8** - **Due:** Draft of Amylase lab for Peer Review (3 copies/group) in lecture  
**F Oct 10** - **Due:** Completed Peer Reviews with PR Forms in lecture.                                                                                                                                 | 51-54     |
| 7 – Oct 13,14 (Fall Break Week) | DNA Barcoding 1: Isolation of plant DNA and PCR, Practice BLAST search  
**Tu Oct 14 - DUE:** Final Amylase lab including all PR materials  
**at Carnegie Reception**                                                                                                                                 | 55-66     |
| 8 – Oct 20,21 | DNA Barcoding 2: Gel electrophoresis and phylogenetic analysis using BLAST  
**F Oct 24 - Due:** DNA barcoding lab report in lecture                                                                                                                                 | 67-80     |
| 9 – Oct 27,28 | Photosynthesis 1: Interdependence of ETC and proton gradient in light reactions  
**Due:** Pre-Lab Problem Set #2 (see Appendix 1) in lab.  
**Due Friday Oct 31 in class:** Draft of Title, Intro, and Methods of Photosynthesis paper                                                                                                                                 | 81-96     |
| 10 – Nov 3,4 | Photosynthesis 2: Self-Designed Experiments – Influence of light intensity on light reactions  
W – Nov 5 - Photosynthesis Lab HELP SESSION – 7-9 pm in lab                                                                                                                                 | 97-98     |
| 11 – Nov 10,11 | Bacterial Transduction 1: Transducing E coli with an antibiotic resistance gene; PCR  
**Due:** Pre-Lab Question set #3 (see Appendix 1) in lab.  
**M Nov 10 - Due:** Draft of Photosyn lab for Peer Review (3 copies/group) in lecture  
**W Nov 12 - Due:** Completed Peer Reviews with PR Forms in lecture.  
**F Nov 14 - Due:** Amylase lab revisions on instructor’s comments including original paper and Revision Response Form due in lecture.                                                                 | 99-104    |
| 12 – Nov 17,18 | Bacterial Transduction 2: Electrophoresis  
**F Nov 21 - Due:** In lecture - Final Photosynthesis lab including all PR materials  
**at Carnegie Reception**                                                                                                                                 | 105-110   |
| 13 – Nov 24,25 | Thanksgiving Break – no labs this week – WHEW! Gobble, gobble!                                                                                                                                                                 | ---       |
| 14 – Dec 1,2 | LABORATORY PRACTICAL EXAMINATION – Schedule TBA  
Plan for 2 hours to complete the exam.  
**Due:** Transduction lab report in lab                                                                                                                                 | 111       |