

Colorado State University Department of Biochemistry
BC 405-R90 Comprehensive Biochemistry II – Metabolism Honors Section
Spring Semester 2019

Instructor: Aaron Sholders

Schedule: TBD
TBA

Objectives: BC405 is designed to provide students the opportunity to “enrich” their academic experience in BC403 by writing a 5 -10 page research paper (double spaced) on a set of select topics within the field of metabolism while providing a forum for students to further develop oral and written communication skills. Upon completion of the class students will have further developed their ability to:

1. Read and understand the main points communicated within a scientific journal article.
2. Critically analyze scientific data presented through journal articles.
3. Present complex data derived from scientific literature.
4. Communicate in written form their analysis of any given research article.

Course Design: Each student enrolled in BC405-R90 is expected to write research paper on one of the topics listed below. The paper will be no shorter than 5 pages and no longer than 10 pages double-spaced. It is expected that the paper will be well-researched with a minimum of 5 primary journal articles used as resources.

Topics of Research Interest:

- Dysregulation of glucagon secretion in type-2-diabetes and its role in glucose stimulated insulin secretion and possible treatment options.
- LDH-A as a potential anticancer therapeutic.
- Glutamine “addiction” in cancer cells and potential anticancer therapeutics targeting glutamine synthesis.
- Ceramide synthesis inhibition as a potential treatment of both obesity and type-2-diabetics.

The following due dates are meant to keep the student on track for successful fulfillment of the project. After each deadline (with the exception of the final draft) it is expected that the student and I may meet to discuss the progress of the paper if any adjustments that I see need to be made.

- Outline for the paper: DUE – 2/6
- Annotated Bibliography: DUE – 2/20
 - Annotation of 5 primary journal articles.
- Rough draft: DUE 3/15

- Penultimate draft: DUE 4/24
- Final draft: DUE 5/8

Grades: The grade break-down is as follows:

Assignment	Points Counted
Outline of Paper	10
Annotated Bibliography	10
Rough Draft	25
Penultimate Draft	25
Final Draft	30
Total	100

Letter grades will be assigned based on the percentage of points accumulated from the aforementioned requirements. Letter grade breakdown will be as follows:

<u>Grade</u>	<u>Final Average</u>
A+	97-100%
A	90 - 96%
B+	87 - 89%
B	80 - 86%
C+	77 - 79%
C	70 - 76%
D	60 - 69%
F	<60%

If appropriate, the final averages required for a specific grade will be reduced to compensate for a low final class average or A- and B- grades may be used to better discriminate breaks in the grade distribution.