

Mt. San Jacinto College
Honors Course Outline Addendum

Submitted by:	Sujatha Pamula	Date:	06/25/2020
Course Discipline:	Biology		
Course Number:	BIOL 100H	Honors Courses End in "H"	
Title:	Honors Human Biology	Must begin with "Honors"	

Honors Course Objectives:

1. Reframe thinking about the science of human biology by applying rigorous critical analysis, asking questions, reflecting on and discussing topics in human biology, and exploring the scientific literature.
 2. Develop and practice the analytical skills to understand, evaluate, and critique the range of biological topics included in the course.
 3. Collaborate closely with the instructor and other honors students.
 4. Develop appropriate skills in presenting and defending ideas, claims, and conclusions, including through discussion, writing, and formal presentations.

Honors Course Content:

The honors component of the course encourages students to work beyond the survey level and to explore the concepts included in Human Biology with greater depth and complexity. Students are encouraged to reflect on and discuss historic and current issues in human biology including, but not limited to, extraterrestrial of life, the genetics of race, nutritional evidence and advice, genetic engineering, and bio-artificial organs.

Honors Course Assignments:

Honors students will complete all the regular course requirements and will be graded first according to the standards used for the regular section. Honors students must, in addition, complete assignments A) and B), as well as one of C), D), or E). F), and G) are optional and one or two of these can be completed at the discretion of the instructor.

A) Choose a book in consultation with the instructor and read the book (or comparable alternative) beyond the scope of the regular section. Readings might include popular science or academic books, journal articles, or other appropriate texts. Contradictory readings on the same topic may be analyzed to encourage critical thinking on various perspectives in biological science. Honors students will meet with the instructor to discuss the reading(s) and may optionally also produce a short one to two page reflection/reaction paper. Examples of appropriate readings include:
[The Microbes Within Us and a Grander View of Life](#) by [Ed Yong](#) ; [Lifespan: Why We Age—and Why We Don't Have To](#) by [David Sinclair](#); [The Secret World of Sleep: the Surprising Science of the Mind at Rest](#) by [Penelope A. Lewis](#) ;[This Is Going to Hurt: Secret Diaries of a Junior Doctor](#) by [Adam Kay](#) to name some.

B) Give a 10-15 minute oral presentation of the major work done in the honors section, given to their fellow honors students, the instructor, or to the entire regular section class.

C) Produce an in-depth investigation of a topic in biology that the student selects in consultation with the instructor. Background research may be conducted in a university library or the equivalent and should be based on primary and secondary sources from the scientific literature, and academic books. A minimum of ten academic sources must be referenced in the project. The instructor may organize student peer reviews of their research proposals, thesis and outlines, or rough drafts of their projects. Students will also submit a 250-word abstract of their work. Examples of in-depth investigation include: an investigation of the history and current status of an emerging infection like Nipah virus, Zika virus or Ebola; the scientific controversies over animal research; the prospects and ethical issues raised by gene therapy or

cloning. The investigation can be submitted as:

- a) 9-12 page research paper: The report will include background information, methods of research, results, discussion/conclusions and bibliography. The document should be typed double-spaced with the usual margins and fonts
- b) Academic poster : A poster should summarize the research in an engaging visual format. A Poster presentations will use a 4' (height) by 3' (width) board. A poster will contain the following: Poster heading on top (font size: 72 point size approximately). Title, name of the author, and the consulted instructor's name, department, campus. Poster content : (All the headings with a font size: 48 points approximately and 18 -24 point size for the content under the headings). Introduction, Discussion, Conclusion ,Bibliography : 8-10 appropriate citations.

- Additional guidelines to be followed as given below
 - Incorporation of appropriate graphics in the poster. (Label and describe any charts, tables, figures, graphs, or photos that are used).
 - Simplify text by using short bullet points and phrases instead of complete sentences.

D) Produce an original research project appropriate to Human biology. The research project will involve an original investigation consisting of experiments (using available tools of biological research), clinical interviews, surveys, observations, literature reviews, or other appropriate methods. The product of the investigation will be presented as a six to nine page (typed, double-spaced, typical margins and fonts) report. The report will include background information, methods of the research, results and discussion/conclusions. The project will be designed and implemented by the student in consultation with the instructor. Background research may be conducted in a university library or the equivalent and should be based on the following: primary and secondary sources from the scientific literature or academic books. A minimum of six academic sources must be referenced in the paper. As part of this project, students may peer review one another's work. Examples of original research topics include: a comparison of different soaps on bacterial populations of human hands; the relative strength of various stimuli in producing learning in isopods; role of nose in the deciphering the taste; effect of age on peripheral vision; effect of pH of hair products on hair quality; petting an animal and its effect on heart rate; effect of video games(physically active) on player's heart rate and blood pressure to that of non-physical video games.

E) Create a service learning project in consultation with the instructor. Service learning can be differentiated from other volunteer experiences by its focus on the integration of academic learning and providing a service to one's community. Students will volunteer at a local life science institution, laboratory, hospital, or similar location for a total of 10 hours over the course of the semester and enrich their volunteer experience by reading three articles related to the biology relevant to the site of service, museology, the politics of the visual representation of science, scientific practice, hospital care, or similar topics. Students will submit a four to seven-page reflection paper that connects their volunteer experience to themes addressed in the course and assigned readings along with a log of their hours signed by an employee of the institution where they are volunteering. Students may wish to share the content of their reflection with the institution where they volunteered in the form of a lecture, presentation, or suggested action plan that the instructor and other honors students in the course are invited to attend.

F) Interview a biologist or medical professional about the purpose, methodology, and significance of their work and how it relates to topics and themes addressed in Human Biology 100H. Students will collaborate with their instructor to select an appropriate person to interview, develop a set of interview questions, review interview protocols, decide on the best way to preserve and present their findings to the instructor or the class (i.e., a brief write-up of their interview or a short oral presentation), and consider how the individual's research contributes to or challenges current scientific perspectives.

G) Keep a journal on assigned readings and writing assignments. Journal writing will assist students in understanding and reflecting on important subjects of the course and will help students organize their own questions and comments that can be used in class discussions.

Evaluation of Honors Course Assignments:

Honors students must successfully complete the regular course and honors assignments to receive honors credit.

Research papers and multimedia projects will be assessed on clarity of argument and presentation, supporting evidence, the number and types of references consulted, depth of analysis, and historical accuracy.

Poster presentation will be evaluated based on depth of content, organization, knowledge of the content, supporting evidence ,accuracy of the content and the number and types of references consulted.

Oral presentations will be evaluated based on lucidity, organization, critical thinking, and originality of argument.

Honors class discussions of supplemental readings will be judged based on student preparedness as well as the ability of students to summarize, critically analyze, and provide their own perspective on the assigned readings.

For service learning projects, students will be evaluated on their completion of the agreed upon number of volunteer hours as well as the quality of the reflection paper that integrates academic source material and their service learning experience, the number and types of references consulted, depth of analysis, organizational structure, grammar, and the connection back to themes associated with the course.

Journal writings will be assessed based on quality, organization, accuracy, and how well they address and further illuminate the subject matter of the course.

Additional Methods of Instruction:

Method: Student instructor meetings
Integration: Guided small group discussions in the honors course will provide a forum for instructors and students to discuss historical trends in and/or the current state of human biology as well as analyze and interpret assigned readings or films to gain a deeper understanding of key concepts, people, and events that have shaped modern biology. These discussions can also cover student progress on research projects including research proposals, sources, thesis statements, outlines, and rough drafts as well as peer-reviews of these assignments. Students will meet as a group or individually with the instructor a minimum of once a month for a minimum of four meetings over the course of the semester.

Method: Service Learning Project
Integration: Service learning at biology institutions, or similar locations will help students gain hands-on experience in areas that pertain to the field of medicine. This will be useful to students making decisions about major and career choices and will encourage them to seek out additional volunteer or internship opportunities after the conclusion of the course.

Method: Oral Presentations
Integration: Oral presentations will provide honors students the opportunity of presenting their research projects to their honors colleagues or the regular class to facilitate the development of their presentation and communication skills.

Method: Field Trips
Integration: Students will engage in academic inquiry and discussions of topics in human biology by visiting a museum exhibition, going to a film screening, or attending an academic lecture at a nearby university. These visits will encourage students to reflect on the impact of science on society while films and lectures provide a means of experiencing biology through a variety of mediums beyond the classroom.

