**Honors Biology Literature Review – Fall 2012**

Biology is an exciting and dynamic field. Topics of study can run the gamut from energy production to pharmaceutical treatments for pancreatic tumors to nutrition. Topics can be chosen from the fields of biochemistry, ecology, evolutionary biology, microbiology, and physical biology to name a few. Choose something exciting and/or important and embrace it. When selecting your topic, keep in mind that next semester, you will take the information that you gained in this project and develop your own research project.

**Purpose:**

Each student must research a topic and complete a review of the literature that has been published surrounding a life science topic. An understanding of the current knowledge is vital to an individual in any field of science. This assignment challenges the student to critique the knowledge base surrounding a specific topic in biology. At the end of the paper, you should:

* have gained a thorough understanding of your topic,
* understand the current status of the research surrounding it
* and assess the contribution the research has made to the current understanding of the topic.

**Assignment Details:**

* Final Paper Due Date: **Monday, November 19th.**
* **Counts as 5% of your overall grade and as a separate test grade. See the timeline below for the value of each part of the process**.
* Review should be no less than 1500 words and no more than 2000 words (3 to 5 pages of double-spaced typed text, 12-point Times New Roman font, and 1-inch margins),
* Contains a cover page (including an image related to your topic).
* Works cited page and parenthetical documentation must also be included (search web for further guidelines to APA writing style format).
* Supporting charts or diagrams may be included in addition to the 3-5 pages.
* **Your final draft will be submitted to** [**www.turnitin.com**](http://www.turnitin.com)(more specific instructions will follow) **as well as a hard copy submitted to me on the final due date. PLAGERISM WILL NOT BE TOLERATED.**
* You must have at least 6 sources minimum (more are recommended) for your paper, 3 of which must be primary sources. The remaining three may be either primary or secondary. All sources used in this assignment must be cited in APA format.
	+ *Examples of appropriate sources may include (but are not limited to):*
		- Specialized encyclopedias (only one max.)
		- Reference/non-fiction book (unlimited)
		- Articles published in peer-reviewed journals (may be found in Edited databases: school web subscriptions: eLibrary, InfoTrac, SIRS, Researcher, GALILEO, etc. (at least 3 or more)
		- Articles published in current science magazines (i.e. National Geographic, Popular Science, etc.) (unlimited)
		- Other Web sources (.edu, .org, .gov are permissible) and the full internet article must be printed out and turned in (only one max.)
* You may use other sources for the sole purpose of gaining information (i.e. Wikipedia, HowStuffWorks.com, etc and will be included in your bibliography. However, these will not be counted towards the total of your six cited sources, and should not be cited within your paper. The bias in each source, especially from news outlets, should be analyzed before you choose to use it.
* You must include at least one parenthetical documentation from each required source within your paper. **Any information included in your paper that is not common knowledge must be cited**.Most papers will have many more than 6 parenthetical documentations. Any source of information that you use to help understand your topic should be referenced in your bibliography, **even if you do not cite it in your paper** (such as Wikipedia).

**Timeline**

* **Topic Selection with 4 sources** – *Due Thursday, September 6th (5 points)*
	+ Topics should be turned in with a 4-5 sentence description of what the specific area of focus will be. Duplicate topics will be awarded to the first student to turn his or her topic in OR to the person with the most developed idea. To avoid being stuck without a topic, get yours in ASAP. In the event two students turn in the same topic on September 6th, one student will be given the next day to devise a new topic. **DO NOT** begin researching your topic until it has been approved.
* **Annotated Bibliography** – *Due Thursday, September 27nd (20 points)*
	+ Students will submit a typed paper. The paper mustcontain the sources cited in APA format, and a complete summary of the information contained in that resource along with the remaining required information. See attached rubric.
* **1st Rough Draft** – *Due Monday, October 15th (10 points)*
	+ Rough Draft should be submitted in final draft format, following the guidelines indicated previously. Students should **bring 3 COPIES to class**. One copy will be handed in to the instructor and the other copies will be distributed to two classmates for peer review and editing. The content of the paper should be complete at this point and the Peer Review is only to help with formatting and grammar. **The only thing within your paper that will be graded by your teacher on your rough draft will be your bibliography.** See the attached rubric.
* **Peer Review of Rough Drafts** – *Due Friday, October 19th (10 points)*
	+ Students will bring their edited copies of their classmates’ papers to class and return them to their author. Students **must edit 2 separate papers and are responsible for getting them from their peers**. Students must show thoughtful and helpful editing of their peers to receive credit. Students will sign and date the rough draft after the last paragraph on each of the 2 papers.
		- **Parent Review of Rough Draft** – *Due Monday, October 29th ( 5 points)*
	+ Include one copy of rough draft that has been edited by one or more parent/guardian. Rough Draft MUST show corrections and parent must sign and date after the final paragraph.
* **Final Paper** ­*- Due Monday, November 19th (50 points) –* ***turn in with rubric!***
	+ **All papers must be submitted to Turnitin.com by midnight on November 18th!** Any late submissions will be rejected and a loss of 20% will be assessed. Once reactivated, papers can be resubmitted to Turnitin.com. Any paper not submitted to Turnitin.com will receive a zero.
	+ **It is highly recommended that students attempt to submit their paper at least 3 days prior to due date to address any technical problems.** If revisions are made and student re-submits prior to the deadline, then only the most recent version will be graded.
	+ Late papers lose 20% per day, no matter what the reason. All papers may be turned in anytime prior to the actual due date. **Papers turned in after beginning of class count as one day late**. Any student who misses school on November 19th MUST EMAIL me his or her paper before your class time on that day.

Annotated Bibliography Rubric

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| --- | --- | --- | --- | --- |
| Criteria | Novice | Apprentice | Succeeding | Accomplished |
| Description of Research | The students does not appropriately identify each of the articles as either review or research AND does not provide either sufficient evidence for the type of review article OR an evaluation of the research. | The students appropriately identifies each of the articles as either review or research but does not provides any evidence for the type of review article OR an evaluation of the research. | The students appropriately identifies each of the articles as either review or research but does not necessarily provides either *sufficient* evidence for the type of review article OR an *appropriate* evaluation of the research. | The students appropriately identifies each of the articles as either review or research AND provides either sufficient evidence for the type of review article OR an appropriate evaluation of the research. |
| Assessment of Research | When taken together, the annotations do not sufficiently address the following:* Provenance—What are the author's credentials? Are the author's arguments supported by evidence (e.g. primary historical material, case studies, narratives, statistics, and recent scientific findings)?
* Objectivity—Is the author's perspective even-handed or prejudicial? Is contrary data considered or is certain pertinent information ignored to prove the author's point?
* Persuasiveness—Which of the author's theses are most/least convincing?
* Value—Are the author's arguments and conclusions convincing? Does the work ultimately contribute in any significant way to an understanding of the subject?
 | When taken together, the annotations address only two of the following:* Provenance—What are the author's credentials? Are the author's arguments supported by evidence (e.g. primary historical material, case studies, narratives, statistics, and recent scientific findings)?
* Objectivity—Is the author's perspective even-handed or prejudicial? Is contrary data considered or is certain pertinent information ignored to prove the author's point?
* Persuasiveness—Which of the author's theses are most/least convincing?
* Value—Are the author's arguments and conclusions convincing? Does the work ultimately contribute in any significant way to an understanding of the subject?
 | When taken together the annotations address only three of the following:* Provenance—What are the author's credentials? Are the author's arguments supported by evidence (e.g. primary historical material, case studies, narratives, statistics, and recent scientific findings)?
* Objectivity—Is the author's perspective even-handed or prejudicial? Is contrary data considered or is certain pertinent information ignored to prove the author's point?
* Persuasiveness—Which of the author's theses are most/least convincing?
* Value—Are the author's arguments and conclusions convincing? Does the work ultimately contribute in any significant way to an understanding of the subject?
 | When taken together, the annotation address each of the following:* Provenance—What are the author's credentials? Are the author's arguments supported by evidence (e.g. primary historical material, case studies, narratives, statistics, and recent scientific findings)?
* Objectivity—Is the author's perspective even-handed or prejudicial? Is contrary data considered or is certain pertinent information ignored to prove the author's point?
* Persuasiveness—Which of the author's theses are most/least convincing?
* Value—Are the author's arguments and conclusions convincing? Does the work ultimately contribute in any significant way to an understanding of the subject?
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| Purpose of Research | Few to no annotations address the following:* Place each work in the context of its contribution to the understanding of the subject under review
* Describe the relationship of each work to the others under consideration
* Identify new ways to interpret, and shed light on any gaps in, previous research
* Resolve conflicts amongst seemingly contradictory previous studies
* Identify areas of prior scholarship to prevent duplication of effort
* Point the way forward for further research
 | Less than half of the annotations address at least one of the following:* Place each work in the context of its contribution to the understanding of the subject under review
* Describe the relationship of each work to the others under consideration
* Identify new ways to interpret, and shed light on any gaps in, previous research
* Resolve conflicts amongst seemingly contradictory previous studies
* Identify areas of prior scholarship to prevent duplication of effort
* Point the way forward for further research
 | Most of the annotations address at least one of the following:* Place each work in the context of its contribution to the understanding of the subject under review
* Describe the relationship of each work to the others under consideration
* Identify new ways to interpret, and shed light on any gaps in, previous research
* Resolve conflicts amongst seemingly contradictory previous studies
* Identify areas of prior scholarship to prevent duplication of effort
* Point the way forward for further research
 | Each of the annotations address at least one of the following:* Place each work in the context of its contribution to the understanding of the subject under review
* Describe the relationship of each work to the others under consideration
* Identify new ways to interpret, and shed light on any gaps in, previous research
* Resolve conflicts amongst seemingly contradictory previous studies
* Identify areas of prior scholarship to prevent duplication of effort
* Point the way forward for further research
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APA Citation Rubric

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| Criterion | Novice (0 points) | Apprentice (1 point) | Succeeding (2 points) | Accomplished (3 points) |
| Basic Rules | The student does not attend to the following: All lines after the first line of each entry in your reference list should be indented one-half inch from the left margin. Reference list entries should be alphabetized by the last name of the first author of each work. If you have more than one article by the same author, single-author references or multiple-author references with the exact same authors in the exact same order are listed in order by the year of publication, starting with the earliest.  | The student attends to only one of the following: All lines after the first line of each entry in your reference list should be indented one-half inch from the left margin. Reference list entries should be alphabetized by the last name of the first author of each work. If you have more than one article by the same author, single-author references or multiple-author references with the exact same authors in the exact same order are listed in order by the year of publication, starting with the earliest.  | The student attends to two of the following: All lines after the first line of each entry in your reference list should be indented one-half inch from the left margin. Reference list entries should be alphabetized by the last name of the first author of each work. If you have more than one article by the same author, single-author references or multiple-author references with the exact same authors in the exact same order are listed in order by the year of publication, starting with the earliest.  | The student attends to all of the following: All lines after the first line of each entry in your reference list should be indented one-half inch from the left margin. Reference list entries should be alphabetized by the last name of the first author of each work. If you have more than one article by the same author, single-author references or multiple-author references with the exact same authors in the exact same order are listed in order by the year of publication, starting with the earliest.  |
| Authors | The student does not attend to the following: Authors' names are inverted (last name first); give the last name and initials for all authors of a particular work unless the work has more than six authors. If the work has more than six authors, list the first six authors and then use et al. after the sixth author's name to indicate the rest of the authors.  | The student attends to one of the following: Authors' names are inverted (last name first); give the last name and initials for all authors of a particular work unless the work has more than six authors. If the work has more than six authors, list the first six authors and then use et al. after the sixth author's name to indicate the rest of the authors.  | The student attends to two of the following: Authors' names are inverted (last name first); give the last name and initials for all authors of a particular work unless the work has more than six authors. If the work has more than six authors, list the first six authors and then use et al. after the sixth author's name to indicate the rest of the authors.  | The student attends to all of the following: Authors' names are inverted (last name first); give the last name and initials for all authors of a particular work unless the work has more than six authors. If the work has more than six authors, list the first six authors and then use et al. after the sixth author's name to indicate the rest of the authors.  |
| General Content | The student does not attend to the following: When referring to any work that is NOT a journal, such as a book, article, or Web page, capitalize only the first letter of the first word of a title and subtitle, the first word after a colon or a dash in the title, and proper nouns. Do not capitalize the first letter of the second word in a hyphenated compound word. Capitalize all major words in journal titles. Italicize titles of longer works such as books and journals. Do not italicize, underline, or put quotes around the titles of shorter works such as journal articles or essays in edited collections. | The student attends to one or two of the following: When referring to any work that is NOT a journal, such as a book, article, or Web page, capitalize only the first letter of the first word of a title and subtitle, the first word after a colon or a dash in the title, and proper nouns. Do not capitalize the first letter of the second word in a hyphenated compound word. Capitalize all major words in journal titles. Italicize titles of longer works such as books and journals. Do not italicize, underline, or put quotes around the titles of shorter works such as journal articles or essays in edited collections. | The student attends to three or four of the following: When referring to any work that is NOT a journal, such as a book, article, or Web page, capitalize only the first letter of the first word of a title and subtitle, the first word after a colon or a dash in the title, and proper nouns. Do not capitalize the first letter of the second word in a hyphenated compound word. Capitalize all major words in journal titles. Italicize titles of longer works such as books and journals. Do not italicize, underline, or put quotes around the titles of shorter works such as journal articles or essays in edited collections. | The student attends to all of the following: When referring to any work that is NOT a journal, such as a book, article, or Web page, capitalize only the first letter of the first word of a title and subtitle, the first word after a colon or a dash in the title, and proper nouns. Do not capitalize the first letter of the second word in a hyphenated compound word. Capitalize all major words in journal titles. Italicize titles of longer works such as books and journals. Do not italicize, underline, or put quotes around the titles of shorter works such as journal articles or essays in edited collections. |

Literature Review Paper Rubric

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| Section | Novice | Apprentice | Succeeding | Accomplished |
| Title (5) | Title is lacking in all three of the following: specificity, being informative, relevancy/absence of key words (0) | Title is lacking in any two of the following: specificity, being informative, relevancy/absence of key words (1-2) | Title is lacking in any one of the following: specificity, being informative, relevancy/absence of key words (3-4) | Title is specific and informative; contains keywords that are relevant to the narrowed topic (5) |
| Introduction (10) | Introduction is lacking in all three of the following: presentation of issue, rationale, paper’s central premise (0-2) | Introduction is lacking in any two of the following: presentation of issue, rationale, paper’s central premise (3-5) | Introduction is lacking in any one of the following: presentation of issue, rationale, paper’s central premise (6-8) | Introduction presents the scientific issue, gives a rationale for your review, and contains the paper’s central question/objective (9-10) |
| Body (30) | Body is lacking in any three of the following: synthesis/interpretation of literature, organizational structure of paragraphs, use of author’s wording over direct quotations, at least 6 reliable sources are used (with citations) (0-9) | Body is lacking in any two of the following: synthesis/interpretation of literature, organizational structure of paragraphs, use of author’s wording over direct quotations, at least 6 reliable sources are used (with citations) (10-20) | Body is lacking in any one of the following: synthesis/interpretation of literature, organizational structure of paragraphs, use of author’s wording over direct quotations, at least 6 reliable sources are used (with citations) (21-26) | Literature is synthesized and interpreted rather than merely summarized; paragraphs are well organized, with main points developed by means of details and examples; writing consists mainly of author’s wording, with few to no direct quotations; at least 6 reliable sources are used (27-30) |
| Conclusion (10) | There is no explicit conclusion included with the paper (0) | Conclusion is lacking in that it both merely provides a summary AND does not address the broader implications of the narrowed topic (1-4) | Conclusion is lacking in that it either merely provides a summary OR does not address the broader implications of the narrowed topic (5-8) | Conclusion is more than simply a summary; controversies in the literature, the need for new research, and broader implication of narrowed topic are discussed (9-10) |
| References (5) | There is no reference list included with paper, or less than 6 references cited. (0) | References are lacking in both the inclusion of all sources cited AND the consistent documentation using a conventional format (1-2) | References are lacking in either the inclusion of all sources cited OR the consistent documentation using a conventional format (3-4) | References contain all sources cited in paper; sources are documented using a conventional format (APA) consistently and meticulously (5) |

 Total Score: \_\_\_\_\_\_\_\_\_\_/60