USU 1360 IPS: Intelligent Life in the Universe
Summer 2010 First 4 Week Session

Instructor: Tonya B. Triplett

Office Hours: M-F after class until 1:30

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Text: (Required) Life in the Universe,2nd Edition by Bennett and Shostak.

Personal Response Unit: I-clicker. Used during regular semesters. For summer session we will use scan-tron forms.

Lab Fee: USU 1360 Students were assessed a $5 laboratory fee that is used for upkeep of observatory equipment and processing of scan-tron forms. This should have been paid at registration.

Goal: The most profound questions of the human experience will be asked, and in some cases answered. How and why did our existence become possible? Are these conditions necessary for life in general? Could we find life elsewhere in the universe? Where should we look? This course will take a critical look at how science evaluates questions and where the search for life is today.

If there is any student in this class who has a disability that will require some accommodation by the instructor, that student should contact the instructor and the Disability Resource Center (797-2444) as soon as possible. Class notes can be made available in large print, Braille, or audio format.

Your final grade will be determined as follows:

4 Tests	600
Observation	50
Quizzes	100
Media Project	150
Classroom Points	100
Total	1000

Tests: will be in class and closed book, closed notes. Each will be worth 150 points. The format will be multiple choice. Please bring a #2 pencil.

Final: will be Friday, June 11. It will be worth 150 points and will not be comprehensive.

Observation: You must complete a "sky experience" during the semester. You may attend the physics department observatory. The TA there will provide a form for you to fill out and operate the telescopes. Your visit is worth 50 points and the due date is shown on the schedule. The observatory will only be open one night during this session. Other alternative assignments have instructions on blackboard and include: Plot the path of the sun's shadow, Follow the moon, Follow the stars, the Hubble movie at the IMAX, or something else approved by the instructor in advance.

Quizzes: These points can be earned by taking online quizzes. Quizzes will be given on line corresponding to each chapter of the text. Carefully check the schedule as these cannot be made up. There are many more quizzes than points allowed, so that you may drop low scores. A maximum of 100 points will be allowed in this category no matter how many quizzes you take.

Media Project: Hollywood has provided many examples of what an alien encounter would do. During the semester you will watch 3 movies from many possible choices on reserve at the Library or on your own. You will then complete a review of the movie online. The questions that appear on the review are available for you to print in advance if you wish. The essay question is intended to be an evaluation of what you have learned during the semester regarding that topic and will be graded as such. You may substitute another movie with the instructor's approval. Get instructions first.

Classroom Points: We will answer on-going questions in class to assess knowledge and encourage attendance. Most questions will be graded such that attempting the question is worth points whether or not you get it right. These points can only be obtained during class and cannot be made up. No amount over 100 points will be allowed.

Grade Scale: Grades will be given based upon points earned.

A	950-1000	C	740-769
A-	900-949	C-	700-739
B+	870-899	D+	670-699
B	840-869	D	600-669
B-	800-839	F	<600
C+	770-799		

Course Schedule

Date	Note	CH	Material Covered
May 17	1	1/3	Course Information, Tour of Universe
	2	1	A Universe of Life?
May 18	3	2	Ancient Astronomy
	4	2	Scientific Method and Astrobiology
May 19	5	3	History of the Universe
	6	3	Worlds, Matter and Energy
May 20	8	4	Earth's History
May 21	**7**	**1-3**	**Exam 1**
May 24	9	4	Earth's Geology and Atmosphere
	10	5	What is Life? Cells and Metabolism
May 25	11	5	Metabolism, Heredity, Life at the Extreme
May 26	12	6	Origin of Life, Early Evolution and Oxygen
	13	6	Oxygen, Diversity, Extinction, Human Evolution
May 27	**14**	**4-6**	**Exam 2**
May 28	15	7	Requirements for Life, Exploration, Telescopes
	16	7	Exploring the solar system and a biological tour
May 31			**No Class… Memorial Day**
June 1	17	8	Mars History and Fantasy
	18	8	Searching for life, Meteorites, Ongoing Exploration
June 2	19	9	Life on Jovian Moons
June 3	20	9	Jovian Moons Cont.
	21	10	Habitability factors Present and Future
June 4	22	10	Venus and Global Warming
June 7	**23**	**7-10**	**Exam 3 OBSERVATION DUE TODAY**
June 7	24	11	The Search for Habitable Worlds
June 8	25	11	Rare Earth
	26	12	Search for Extraterrestrial Intelligence
June 9	27	12	Aliens and UFO's **Media Project Due Today**
	28	13	Interstellar travel
June 10	29	13	Fermi Paradox
June 11	**30**	**11-13**	**Exam 4**

All dates are tentative and may be changed to support course goals.

Learning Objectives Chapter 1

1. Know that we have not had contact with aliens
2. Know that life is hard to define
3. Know what we are searching for
4. Know what SETI is searching for and how
5. Know that believing that life exists beyond our Earth is not new
6. For each of the sciences that form Astrobiology, know what they contribute to the search for life
7. Give three reasons that life might be common
8. List the most likely places in our solar system to search for life.
9. What three main areas does Astrobiology focus on (questions)?