HOMEWORK ASSIGNMENTS

AST 105IN  Life in the Universe
Spring 2016 and after

NB: On problems requiring calculations, you must show the calculation setups. The calculations themselves may be done with a calculator. Do you know what “NB” means?

The reading part of assignments is given in the left column. 
The written part of assignments is given in the right column.

At the ends of chapters: Review Questions: “RQ”
Discussion Questions: “DQ”
Quantitative Problems: “QP”
Science or Nonscience?: “S/NS”
Does it Seem Reasonable?: “R?”
Does it Make Sense?: “S?”
Would You Believe It?: “WB”
Evaluate the Opinions: “EP”
Quick Quiz: “QQ”

Note regarding the Quick Quiz questions: I do not want you to explain why you made your particular multiple choice as the textbook requests. Simply write the letter of your choice. I know the book says to explain your choice, but ignore the book instruction in this case.

Assignment 1

“How to Succeed...Astrobiology Course” pp. xiv, xv
Ch. 1, “A Universe of Life?” pp. 1-12
Ch. 2.1, “The Ancient Debate about LBE” pp. 16-25
Ch. 2.4 “The Fact and Theory of Gravity” pp. 41-44

Due date: ___Thur, Sep 07____

Assignment 2 – Foundational Assignment

Introductory Course Note Set

Due date: ___Thur, Sep 14____

Assignment 3

Ch. 2.3, “The Nature of Modern Science” pp. 33-41
Ch. 3.4 “A Universe of Matter and Energy” pp. 80-89

Due date: ___Thur, Sep 21____

TEST 1  Date: ___Thur, Sep 28____
Assignment 4
Ch. 3 “The Universal Context of Life” pp. 50-95
(Read to “The Content of the Universe,” p.58)
(Skip to “We are Star Stuff,” p. 63)
(Skip Ch. 3.4, pp. 80-89, covered in Assignment 3)
Due date: ____________
RQ. 1,4,9,11,13,14,22,24; R?. 30,33; QQ. 35-37,39-43; QP. 60,63
(Hints: d=rt; Use 300,000 km/s for the speed of light.)
(Hint: the odds of one planet orbiting in a particular sense is one out of two, or ½)

Assignment 5
Ch. 11.1 “Distant Suns” pp. 359-368
Ch. 11.4 “…Science in Action: Classifying Stars” pp. 386-391
Due date: ____________
RQ. 1,4,5; WB. 17,22,23,26; QQ. 27-29,36

TEST 2 Date: ____________

Assignment 6
Ch. 10 “The Nature and Evolution of Habitability” pp. 326-354
Ch. 11.2 “ExtraSolar Planets” pp. 368-382
Due date: ____________
RQ. 1,2,4,7,13,15-17; S?. 20,21,23,25,28; QQ. 29-38; QP. 51
Hint: Mars distance=1.53 AU; Venus=0.72 AU
RQ. 9,12; QQ. 30-35; QP. 49,51

Assignment 7
Ch. 4 “The Habitability of Earth” pp. 101-145
Ch. 11.3 “The Possibility that Earth is Rare” pp. 382-386
Due date: ____________
RQ. 1,2,5,6,17; S?. 21-25,28; QQ. 31-38,40; QP. 49,50a,51a,52

Assignment 8
Ch. 5 “The Nature of Life on Earth,” pp. 150-183
except 5.6 “Evolution as Science” covered in next assignment
“Charles Darwin and…Evolution,” pp. 160,161
Ch. 6 “The Origin and Evolution of Life on Earth” through 6.2 “The Origin of Life” pp. 192-207
Rest of chapter covered in next assignment
Due date: ____________
List significant points (for 4 pts.) Don’t miss this! Past students have.
RQ. 1-3,6; WB. 23,24,26; QQ. 33-37

TEST 3 Date: ____________

Assignment 9
Ch. 5.6 “Evolution as Science” pp. 183-187
Ch. 6.3 “The Evolution of Life” to Chapter end, pp. 208-231
Due date: ____________
RQ. 15,16; QQ. 36
RQ. 8,10,13,18-20; WB? 27,29-31; QQ. 38-42;Qp. 52
"Never regard study as a duty but as an enviable opportunity to learn...for your personal joy and to the profit of the community to which your later works belong."

Albert Einstein