

ASTRONOMY 321 - The Future of Humanity

Schedule

- Day 1 1/14 – Discussion of Syllabus, join Facebook Group, assignment: visit *Texas Memorial Museum*
- Day 2 1/16 – Elements of writing, Getting Acquainted Questionnaire, astronomical context of life on Earth, linear versus exponential change
- Day 3 1/18 – Elements of writing, evolutionary timeline, Sagan video *Cosmic Calendar*
- Day 4 1/21 – *Martin Luther King Holiday*
- Day 5 1/23 – **Draft of first paper, oral reading to peers.** Discussion of *Texas Memorial Museum*.
- Day 6 1/25 – **Revised drafts to peers for written review.** Discussion of Darwin *Origin of the Species*, artificial, natural, sexual selection.
- Day 7 1/28 – **Discussion of drafts with peers.** Continued discussion of *Origin of the Species*
- Day 8 1/30 – **First Paper Due, 5 pages on Future of Humanity.** Discussion of Darwin *The Descent of Man*.
- Day 9 2/1 – Continued discussion of *Descent of Man*.
- Day 10 2/4 – Mechanics of writing, use of commas. Discussion of limits of scientific genius (off topic). Discussion of Wikipedia Human Evolution link.
- Day 11 2/6 – Continued discussion of Wikipedia Human Evolution link. Discussion of current evolution of *homo sapiens*, contemporary evolutionary pressures, the Flynn effect. Discussion of *The Selfish Gene*.
- Day 12 2/8 – Discussion of Wikipedia Evolution link. Discussion of “unknown” versus “unknowable.”
- Day 13 2/11 – Discussion of the biological revolution, genome, proteome, gene switches. Discussion of epigenetic evolution
- Day 14 2/13 – Discussion of Sociobiology, Evolutionary Psychology
- Day 15 2/15 – Guest lecturer on evolution
- Day 16 2/18 – Discussion of *The Population Bomb*, Paul Ehrlich
- Day 17 2/20 – Albert Bartlett video *Arithmetic Population and Energy*
- Day 18 2/22 – continue Albert Bartlett video, discussion
- Day 19 2/25 – **Draft of second paper, oral reading to peers.** Discussion of Moore’s law, computational evolution
- Day 20 2/27 – **Revised drafts to peers for written review.** Discussion of human consciousness
- Day 21 3/1 – **Discussion of drafts with peers.** Discussion of artificial intelligence, neural networks, deep learning
- Day 22 3/4 – **Second Paper Due, 10 pages on Topic of Choice.** Discussion of *The Singularity*
- Day 23 3/6 – Discussion of *The Singularity*
- Day 24 3/8 – Open Discussion
- Spring Break 3/11 - 15
- Day 25 3/18 – Discussion of *The Singularity*
- Day 26 3/20 – Discussion of *The Singularity*
- Day 27 3/22 – Discussion of *The Singularity*
- Day 28 3/25 – Discussion of *The Singularity*
- Day 29 3/27 – Discussion of *The Singularity*
- Day 30 3/29 – Good Friday
- Day 31 4/1 – Discussion of Human Space Flight
- Day 32 4/3 – Discussion of Human Space Flight
- Day 33 4/5 – Discussion of Exoplanets
- Day 34 4/8 – Guest lecturer on exoplanets

Day 35 4/10 – Discussion of prospects for interplanetary travel
Day 36 4/12 – Discussion of prospects for interstellar travel, The Fermi Paradox
Day 37 4/15 – Discussion of prospects for interstellar travel, The Physics of Star Trek
Day 38 4/17 – Discussion of hyperspace, string theory, large extra dimensions
Day 39 4/19 – Discussion of the limits of human knowledge
Day 40 4/22 – **Draft of third paper, oral reading to peers.**
Day 41 4/24 – **Revised drafts to peers for written review.**
Day 42 4/26 – **Discussion of drafts with peers.**
Day 43 4/29 – **Third Paper Due, 10 pages on The Future of Humanity**
Day 44 5/1 – Wrap-up discussion
Day 45 5/3 – Wrap-up discussion