

GEOS 200

Evolution of Life: A Geologic Perspective

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Amy Noack - Laboratory

Course Objectives

- Overview of history of life on Earth
- Evolutionary processes at work now, in past
- Documentary evidence of past life: fossils
- Understand how evolutionary mechanisms govern the occurrence of species, the development of structural complexity and diversity

Course Objectives

- To become familiar with the overall history of life on Earth, where it came from, how it has developed over time
- Earth history education is a problem in the US education system...
- 44% of Americans (and 18% of Europeans) still believe in fables claiming Earth was created supernaturally about 10,000 years ago, with all species as they are now, and humans living alongside dinosaurs (as in the *Flintstones*). [Gallup, 1997]
- BUT...
- 86% of Americans agree that: "science and technology are making our lives healthier, easier and more comfortable."
- 90% of Americans believe that students in their states need a better education in science and mathematics.

Recent study of public acceptance of evolution in biology, published in Aug 11th, 2006 issue of the journal *Science*.

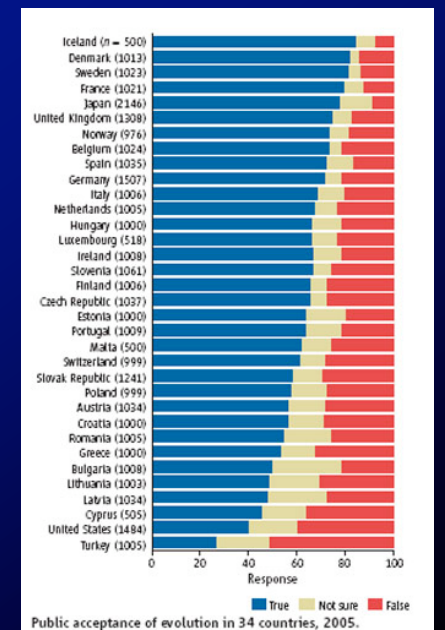
- Based on public surveys from 32 nations, including the US, Japan, Turkey, and nations in the European Union and Eastern Europe.

- Asked people if they thought the statement....

"Human beings, as we know them, developed from earlier species of animals"

...was **true**, **false**, or if they were **unsure**.

The only nation to rank lower than the US was Turkey.



Major Topics in this Course

- Origins of the earth and the solar system
- Geologic time
- Evolutionary processes
- The past course of evolution on Earth
- Major biological turnovers, dominant lifeforms
- Extinctions

Course Structure

- Course reading assignments
- Three in-class lecture exams
- Each lecture exam is graded as a percentile (91%, 56%, etc..)
- One cumulative final exam
- All exams have equal weight
- Lecture score = average of 3 lecture exams + final exam
- If final exam isn't taken, lecture score is the average of the 3 lecture exams

- Three lecture exams + final = 0.75 of total score for the course
- Lab score = 0.25 of total score for course

Calculating your grade

- Average your three lecture exams plus your final exam score
- (e.g. $70\% + 80\% + 90\% / 3 = 80\%$)

- Get your lab score (e.g. 95%)

- 0.75 of total score is lecture, 0.25 is lab
- (e.g. $(0.75) \cdot (80\%) + (0.25) \cdot (95\%) = 83.8\%$)

Letter Grades

- A = 100% - 94%
- BA = 93.9% - 88%
- B = 87.9% - 82%
- CB = 81.9% - 76%
- C = 75.9% - 70%
- DC = 69.9% - 64%
- D = 63.9% - 58%
- E = BELOW 58%

Course Information

- Website:
www.geology.wmich.edu/haas/geos2000
- Contact me by email
- Set up an appointment to come talk to me
 - johnson.haas@wmich.edu
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