

Mars Evolution EPS 465 Take-home Final Exam Spring 2010

Answer the four questions for 25 pts full credit each, total exam: 100 pts. This exam is worth 25% of your final grade.

Please turn in by **email** either a MS Word file or a PDF to agee@unm.edu. Limit your answers to 2-pages of text per question. You may include supplementary pages with figures if needed.

Exams are due at midnight on Tuesday, May 11^h.

N.B.: The sooner you turn in your exam, the sooner I can assign the final grades!

1. Describe the Viking exobiology experiments, and discuss how the search for life could be improved in future Mars missions.
2. Describe all the lines of evidence supporting the hypothesis that SNC meteorites are from Mars. Why do the martian meteorite compositions appear to be rare or lacking in orbiter and lander measurement of Mars surface rocks?
3. Summarize how our understanding of Mars has evolved since the early observers in the 16th and 17th centuries laid the groundwork for planetary science as we know it today. Pick a few specific examples.
4. The martian surface may have been “warm and wet” in its early history. What lines of evidence support this view and what lines of evidence refute it? Based on all the evidence, what is your opinion and why?