James Madison University

GISAT 160 – Problem Solving Approaches in Science and Technology
Brief Syllabus – Full syllabus can be found at
https://users.cs.jmu.edu/harrisnl/web/courses/2007FAGISAT160

Instructor: Nancy Harris
e-mail: harrisnl@jmu.edu
Office hours: Monday: 11-11:30, 1-3; Tuesday:5-6; Wednesday: 11-11:30;
                     Thursday 2:30 – 3:30, Friday morning by prior appt.
Office: ISAT/CS 217
Course Web: https://users.cs.jmu.edu/harrisnl/web/courses/2007FAGISAT160

Textbook: Browne, M. Neil and Keeley, Stuart M. (2007): Asking the Right
Questions, A Guide to Critical Thinking, Eighth Edition. ISBN:0-13-220304-9

Course Description: What is critical thinking? Don't students already know how to think?
 While critical thinking skills are general and can be applied to any discipline, this course examines issues in modern science and technology as a means to introduce, develop, and enhance critical thinking and problem solving skills. Our focus will be on issues dealing with computing and computing technologies and their impact on society. Current scientific and technological research and applications will be introduced to reinforce problem solving, instruction in systems thinking, and critical inquiry. The course provides opportunities for using both oral and written communication in a variety of learning activities.

Overall Objectives Cluster 1:

- Evaluate claims in terms of clarity, credibility, reliability, and accuracy;
- Demonstrate the ability to identify, analyze and generate claims, arguments, and positions;
- Identify and evaluate theses and conclusions, stated and unstated assumptions and supporting evidence and arguments; and
- Apply these skills to one's own work and the work of others.

Further Objectives - It is my expectation that as a result of this course you will:

- Apply critical thinking in everyday life
- Become a more savvy consumer of information
- Think about your own learning and apply what you learn to other classes and learning situations
- Experiment with activities that can inhibit and enhance your ability to think and process information
- Use the result of that experimentation to make changes in the way you study and learn in general
- Use new tools in your work with groups, your work on projects, and other aspects of your academic life
- Become a more thoughtful, reflective learner

More information at https://users.cs.jmu.edu/harrisnl/web/courses/2007FAGISAT160/