

**WEBSTER UNIVERSITY**

**COURSE SYLLABUS**

**SCIC 5010.01**  
**COURSE NUMBER AND SECTION**

**Bill McConnell**  
**INSTRUCTOR**

**Introduction to Science and Science Teaching**  
**COURSE TITLE**

**TERM: F I YEAR: 2004**

**50**  
**SITE**

**F II**  
**SP I**  
**SP II**  
**SU XX**

**1. Course Description: (Student focus, rationale, scope, prerequisites)**

The concept of energy will serve as a basis for introducing students to science, its methods and content. Teachers will be introduced to energy related materials that serve both as models for teaching science and as an introduction to the concept of energy.

**2. Learning Outcomes: (Goals, objectives, course outcomes, etc.)**

The student will develop the ability to formulate questions about observations that are not trivial and which can be answered by observation.

The student will develop the ability to analyze phenomena from an energy point of view. The analysis will be both qualitative and quantitative.

**3. Schedule of required readings, class preparations and assignments, lectures, discussions, student presentations, and exams:**

Week 1: Perpetual Motion  
Energy Paths in Nature  
Energy Paths in Man Made Products

Week 2: Temperatures  
Mixing Hot & Cold

Week 3: Exponential Growth  
Problems in Pictures

Week 4: Heat Content  
Calories

Week 5: Searching for Patterns  
QUIZ

Week 6: Ice & Water - Heat Flow  
Graphing Data  
Search for a Pattern

**SCIC 5010.01 - McConnell**

4. Resources:

Text Used:

Supplemental Readings: (List and indicate how these are to be used.)

Readings from Journals - i.e. Exponential Growth Bartlet

Visual Aids: Overheads

5. **EVALUATION:**

- |                        |     |
|------------------------|-----|
| a) Examinations        | 50% |
| b) Class participation | 20% |
| c) Class presentation  | 30% |

6. **Supplements: (Study Guide, Sample Tests, Project Outlines may be attached.)  
Please list.**

**This syllabus is subject to change at the discretion of the instructor.  
Therefore, regular attendance is required.**

