Objectives:
1. Students will understand the nature of scientific inquiry and become scientifically literate.
2. Students will demonstrate fundamental facts and concepts in the major science disciplines that will help them teach science to children in K-8.
3. Students will make conceptual connections within the science disciplines, as well as to mathematics and technology.

Attendance Policy:
You are strongly encouraged to attend class regularly. Class participation is essential and lack of attendance may lower your grade. It is your responsibility to notify the professor before class of your absence, so that materials may be obtained.
All assignments must be due on time, when absent. You must come prepared to discuss all topics listed in this syllabus each class period.

Academic Honesty Policy:
The Moravian College policy on academic honesty will be followed. Please refer to the student handbook for this policy.

Texts:
Sciencesaurus, A Student Handbook, Great Source, 2005

References:
Science Content for Elementary and Middle School Teachers, Penelope Fritzer and Valerie Bristor, 2004
Teaching Children Science A Discovery Approach, Joseph Abruscato, 2004
Essentials of Elementary Science, Daniel Dobey, Beichner, and Jabot, 2004

Grading: Your performance will be assessed in the following areas:
94-100points=A Learning Center/Work Job-5 points
90-93points=A- In School Observation-10 pts
87-89points=B+ Interview with a child-5 points
84-86points=B Classroom Demonstration-15 points
80-83points=B- Research Paper-20 points
77-79points=C+ Web Sites-3 points
74-76points=C Teacher Made Test-2 points
70-73 points=C- Exam # 1 – 20 points
67-69points=D+ Final Exam-20 points
64-66 points=D
Requirements:

**Learning Center** - This should be an activity oriented learning center for any grade level on any science topic. All materials should be provided at the station. The center should be attractive, inviting, fun, safe, and scientifically accurate. Attention should be given to a learning task. Clear instructions must be given. One or two students should be able to interact at the center. You may do this with a partner.

**In-School Observation** - You must observe a science lesson in any grade K-5. Plan to observe an experienced teacher and to fill out a form as you observe the lesson looking for scientific accuracy, enthusiasm, content knowledge, safety, creativity, hands on and management.

**Interview a Child** - Interview an elementary child and discuss his scientific knowledge, reflections, feelings, etc. Critique his/her interview and submit it on paper. This should be one page in length.

**Classroom Demonstrations** - Your colleagues will be your elementary students as you teach science content on a particular topic. A hands-on demonstration must be included in your lesson. You may work with a partner. A lesson plan must be provided. The lesson should be about 20-30 minutes in length. You may incorporate your learning center with your demonstration.

**Research Paper**
This is to be at least a five page typed research paper on an inventor or scientist or a career or careers in science. If you choose to do a scientist, it should be a biography. You must include a bibliography and a title page.

**Web Sites**
You must review 3 science web sites or science software and fill out the form provided. Be prepared to share the sites and software with the class.

**Teacher Designed Test**
You must design a teacher made science test on any science topic. You must include various forms of assessing such as multiple choice, labeling, matching, fill-ins, and essays. You may use your demonstration lesson as the content for this test.

**Exams #1 and #2**
There will be two exams. They will both be essay questions with emphasis on methods and content. The final will also contain some multiple choice, matching, and a diagram to label. Study Guides will be provided.
Moravian College  
*Science in the Elementary Classroom*

Class Meets every Tuesday and Thursday at 6:30 in Room 302 in PPHAC from August 30 through December 8, 2005

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Texts</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 30, 2005</td>
<td>Introduction</td>
<td>Science K-8</td>
</tr>
<tr>
<td></td>
<td>Review Requirements</td>
<td>Sciencesaurus</td>
</tr>
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<td>Journal Entry</td>
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<td></td>
<td>Review Standards, Sign ups</td>
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<tr>
<td>September 1, 2005</td>
<td>Hands on Experiments</td>
<td>Science K-8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 1-Teaching Science in Grades K-8</td>
</tr>
<tr>
<td>September 6, 2005</td>
<td>Current Events Articles</td>
<td>Science –8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 2-Goals and For K-8</td>
</tr>
<tr>
<td>Objectives</td>
<td>Sciencing</td>
<td>Science-K-8</td>
</tr>
<tr>
<td>September 8, 2005</td>
<td>Sciencing</td>
<td>Chapter 3-Understanding the Nature of Science</td>
</tr>
<tr>
<td>September 13, 2005</td>
<td>Active Science Learning</td>
<td>Science-K-8</td>
</tr>
<tr>
<td></td>
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<td>Chapter 4-Questioning</td>
</tr>
<tr>
<td>September 15, 2005</td>
<td>Inquiry Teaching</td>
<td>Science K-8</td>
</tr>
<tr>
<td></td>
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<td>Chapter 5-Strategies to Help Children Learn</td>
</tr>
<tr>
<td>September 20, 2004</td>
<td>Technology</td>
<td>Science K-8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 6-Selecting and Using Media</td>
</tr>
<tr>
<td>September 22, 2005</td>
<td>Instruction of Science</td>
<td>Science K-8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 7-Planning for Science</td>
</tr>
<tr>
<td>September 27, 2005</td>
<td>Student Achievement</td>
<td>Science K-8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 8-Assessments</td>
</tr>
<tr>
<td>September 29, 2005</td>
<td>Learning Activities</td>
<td>Science K-8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Part Two Chapter 9 Lesson Observations Due</td>
</tr>
</tbody>
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October 4, 2005  Exam # 1  Exam on Chapters 1-8 in Science K-8

October 6, 2005  Making the literature Connection  Lab-Children’s Literature and Web sites due

October 11, 2005  No Class Fall Break

October 13, 2005  Almanac, Science Timeline, Science Terms-Sciencesaurus

October 18, 2005  Doing Science-Sciencesaurus

October 20, 2005  Classroom Demonstrations and Learning Centers presented

October 25, 2005  Doing Science-Sciencesaurus

October 27, 2005  Classroom Demos and Learning Centers Presented

November 1, 2005  Life Science-Sciencesaurus

November 3, 2005  Classroom Demos and Learning Centers Presented

November 8, 2005  Life Science-Sciencesaurus

November 10, 2005  Classroom Demos and Learning Centers Presented

November 15, 2005  Earth Science-Sciencesaurus

November 17, 2005  Classroom Demos and Learning Centers Presented

Teacher Made Tests Due
November 22, 2005          Earth Science-Sciencesaurus

November 29, 2005          Physical Science-Sciencesaurus

December 1, 2005           Demonstrations and Learning Centers Presented
                           Research Paper Due

December 6, 2005           Science, Technology, and Society-Sciencesaurus

December 8, 2004           Final Exam          Exam on Science Content

*This syllabus is subject to change.
All assessments are tied into the student outcomes
Also: Please expect 4-5 hours of course work per week.
       If you have any type of disability, please notify the instructor immediately.