EASTERN SCHOOL DISTRICT

Course Description
(June 2, 2006)

Course: Earth Systems 3209

Subject Area: Science

Text: Earth: An Introduction to Physical Geology
(Lutgens and Tarbuck)

Description:
This course provides an introduction to Earth System Science. This course is based upon the pan-Canadian framework of common science outcomes. It is a rigorous, challenging course on par with the other pure sciences. Students will view earth dynamics as the result of interactions between the geosphere, the hydrospere, the atmosphere, and the biosphere. The course contains a strong laboratory component (12 core labs) and a major project is required.

Unit 1 Introduction To Earth Systems Science

1. The Nature and Importance of earth Science
2. Historical Developments

Unit 2 The Earth's Systems

1. The Spheres
2. The Geosphere
3. The Hydrosphere
4. The Atmosphere
5. The Biosphere
6. Interaction of the Spheres

Unit 3 The Geosphere

1. Minerals
2. Rocks and the Rock Cycle
3. Plate tectonics
4. Interpreting the Fossil Record
5. Economic Resources

Unit 4 The Earth Through Time

1. The Evolution of Life

2. Plate tectonics Through Time
3. Global Change

Evaluation Guidelines:
Summative evaluation of students in Earth Systems 3209 shall utilize a variety of evaluation instruments. Primarily, these are designed to test students' basic knowledge of content, their understanding and ability to apply content, and ability to synthesize and problem solve (higher thinking skills) with respect to the content.

Summative evaluation of students in science courses must involve a variety of evaluation instruments. **Midyear examinations, final examinations, and unit tests/quizzes,** completed by students are traditional instruments which must be a part of any summative student evaluation scheme. As well, **Performance Assessment** instruments shall be used for a portion of the summative evaluation.

Unit Tests/Quizzes:
All unit tests are based on the learning outcomes of the course and the objectives. The tests include a variety of testing techniques such as multiple choice and essay items. There is at least one test after each unit and sometimes the unit can be broken into several sections for the purpose of testing if he teacher deems it necessary. Each test is designed for completion in a single class period.

Performance Assessment:
Performance assessment instruments shall be used for a portion of the summative evaluation. *Examples of performance assessment instruments are assignments, written homework, science fair, class observations, science projects, laboratory reports, in-class presentation, in-class cooperative education, practical laboratory tests, observation checklist, computer assisted evaluation and teacher-student interviews, research reports, field trip reports, portfolios, etc.*

Teachers can determine the performance assessment instruments used in Earth Systems 3209. However, a variety of instruments shall be used to accurately assess students' understanding of learning outcomes, with a focus on core labs and STSE topics.

Cumulative Midyear Exams:
The mid-year examination tests all course objectives to that point. The test is designed to be completed in a 2 hour time period.

Final Public Exam:
The public examination (developed and administered by the Department of Education) is based on the course objectives for the entire year. The test is designed to be completed in a 3 hour time period and administered on the same date for all schools in

the provinces. It is formatted as follows: 50% Multiple Choice and 50% Free Response (short and long answer questions).

Weighting of Evaluation Component:

Tests/Quizzes	20%
Performance Assessment	10%
Comprehensive Midyear Exam	20%
Final Public Examination	50%

Notes:

1) Performance assessments in Earth Systems 3209 should primarily focus on STSE and core lab outcomes (because approximately 15%-20% of the public examination contains STSE and core lab questions).
2) Student grades for the November reporting period comprised of results obtained from tests/quizzes (80%) and Performance Assessment (20%).

Table of Specifications:

This Table of Specifications is reviewed annually before the provincial (public) examination is developed. It is used for two main reasons. First, it guides the construction of the public examination by outlining a percent value for each cognitive level and unit of study. Secondly, the total percentage for each unit directly corresponds to the suggested time for teaching that unit.

Unit	**Cognitive Level %**			
	1	**2**	**3**	**Total %**
Introduction	4	4	2	10
Earth's Systems	4	4	2	10
Geosphere	25	31	9	65
Earth Through Time	7	6	2	15
Total %	40	45	15	100