# Course Syllabus

**MMIS 661 Object-Oriented Applications (3 credits)**  
**Summer 2003, June 23-September 12, On-campus**

## Instructor:
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## Class Location and Format:
SCIS Room 106

## Class Hours:
Mondays 6:30-9:30 PM

## Class Web Site:

## Course Description:
Principles and concepts of the object-oriented paradigm and object-oriented programming languages. Notation and techniques for the analysis, design, and implementation of object-oriented systems. Mechanisms for reuse, including composition, inheritance, design patterns, and application frameworks. The use of object-oriented methods in common applications.

## Required Textbook(s):
**Title:** Object-Oriented Methods: Principles & Practice  
**Author:** Ian Graham  
**ISBN:** 020161913X  
**Edition:** 3rd  
**Publisher:** Addison-Wesley

## Optional Textbook(s):
Throughout the course, several additional papers and online reference materials will be identified to assist in comprehension of specific topics.

## Required Software:
Students will be required to submit diagrams using UML in electronic form. It is recommended that Visio be used for this purpose, but MS PowerPoint is acceptable. UML libraries for Visio and MS PowerPoint will be provided. If student has access to UML modeling software such as Rational Rose, it may be used, however, assignments must be submitted using PDF or other standard format, not in the application-specific format.

## Optional Software:
Technically oriented students are encouraged to become familiar a Java interpreter (Java 2 or later) and text editor. Several varieties of Java development environments are available. Details will be provided in class forums.

## Exit Competencies:
The overall goal of this course is to provide the student with an understanding of the principles of object-oriented applications. Specifically, the course is designed to provide the student with:

1) An understanding of the concepts and principles of the object-oriented paradigm.
2) To gain understanding and experience in analyzing and designing systems using object-oriented methods.
3) To gain an appreciation of the use of object-oriented methods in the development of real-world applications.
To learn the Unified Modeling Language (UML), and to gain experience using this notation for business process modeling, systems analysis and design.

Course Outline:
Two tracks will be taken in parallel. In one track, we will be learning and applying object-oriented concepts to specific problems, developing skills in use of UML and object-oriented modeling. In the second track, we will be surveying and assessing object-oriented technology in the MIS context. A detailed schedule will be provided in class covering the following topics:

1) Object-Oriented Concepts
2) Object-Oriented Analysis and Design
3) Business Process Modeling
4) Benefits and Pitfalls of OOA
5) Object-Oriented and Object-Based Programming Languages
6) Distributed Computing, Middleware, and Migration
7) Architecture, Patterns and Components
8) Applications
9) Process and Product Life-Cycle Models (if class time allows)
10) Object-Oriented Database Technology (if class time allows)

Tentative Schedule:
The class meets each Monday evening starting June 23, 2003 and ending September 8, 2003 following the outline as stated above with each class period covering a single numbered item. The schedule will be adjusted as the term progresses. The final class period will involve live presentations of your final project to the class. Note: September 1, 2003 is a holiday and class will not meet.

Instruction Methods and Tools:
The course is taught onsite and will incorporate in-class lectures and practical laboratory examples. We will be using the Unified Modeling Language (UML) for illustration of object-oriented concepts, analysis, and design. No prior knowledge of UML is assumed.

In some cases, we will use the Java programming language to present ideas in a concrete setting. We will discuss Java programs in class, but students will not be required to write Java programs. Only limited prior knowledge of Java is assumed.

All students will be required to submit assignments via the SCIS ESET system. The ESET system, which stands for Electronic Student, Electronic Teacher, is a cutting-edge system designed to allow you to submit assignment documents to your professor in the form of word processor files, spreadsheets, images, or any requested file type directly from your web browser. Students may, in addition, submit a paper copy of the assignment in class.

Grades and feedback for individual assignments will be posted via ESET. In some cases, a marked up paper copy will be returned if useful for clarifying the feedback.

Students may need to use the SCIS Forums. Forums is an interactive, dynamic web-based tool that functions much like a bulletin board between students and professor, allowing all students to read each other’s postings. The Forums provide a means for assistance in the use of development tools, programming language details, or concept discussions in the intervening time between classes.

Specific instructions will be provided with each assignment.

Assignments:
1. There will be a weekly reading assignment from the textbook.
2. Homework will be assigned most weeks. Solutions to each assignment will be discussed on the due dates.
3. You will be asked to write a term paper and give a presentation for this course. Details will be provided by our second class meeting.

4. Each assignment is to be submitted to ESET prior to class on the specified due date. Late assignments will NOT BE ACCEPTED. However, partial credit will be given for incomplete assignments submitted on time. It is recommended that students bring a copy to class on the due for discussion purposes.

5. Submissions will be graded with feedback via ESET within a week.

If you have difficulty with an assignment, send me an email or post questions of a general nature to the class forum. The earlier you convey your problem, the more time we’ll have to resolve it before the deadline arrives.

**Examinations and Quizzes:** None.

**Grading Criteria:**

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<th>Weight</th>
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<tr>
<td>Homework assignments</td>
<td>50 points</td>
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<tr>
<td>Term paper proposal</td>
<td>5 points</td>
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<td>Presentation</td>
<td>15 points</td>
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<td>Term paper</td>
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<td><strong>Total</strong></td>
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<td>A-</td>
<td>92-90</td>
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<tr>
<td>B+</td>
<td>89-87</td>
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<td>B</td>
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A student may not do additional work or repeat an examination to raise a final grade.

**Bibliography:**

An Object-Oriented Applications bibliography maintained by the instructor is available at [http://scis.nova.edu/~dshrader/ooa.htm](http://scis.nova.edu/~dshrader/ooa.htm).

**Class/Course Rules:**

1. **Standards of Academic Integrity** (For complete policy, see Code of Student Conduct and Academic Responsibility, p. 45. Also see the sections on student misconduct, p. 10, and the NSU Student Handbook.)

Students are encouraged to discuss the course contents with colleagues in order to gain a better understanding of the various issues covered. However, all work that you submit must reflect your individual effort. Any help that you receive must be explicitly acknowledged and all reference material must be cited.

Each student is responsible for maintaining academic integrity and intellectual honesty in his or her academic work. It is the policy of the school that each student must:

- Submit his or her own work, not that of another person
- Not falsify data or records (including admissions materials)
- Not engage in cheating (e.g., giving or receiving help during examinations, acquiring and/or transmitting test questions prior to an examination)
- Not receive or give aid on assigned work that requires independent effort
• Properly credit the words or ideas of others according to accepted standards for professional publications.*

• Not use term paper writing services or consult such services for the purpose of obtaining assistance in the preparation of materials to be submitted in courses or for theses or dissertations

• Not commit plagiarism (Webster’s defines plagiarism as “stealing or passing off ideas or words of another as one’s own” and “the use of a created production without crediting the source.”).

When using the exact words of another, quotation marks must be used for short quotations (fewer than 40 words), and block quotation style must be used for longer quotations. In either case, a proper citation must also be provided. When paraphrasing (summarizing, rewriting, or rearranging) the words or ideas of another, a proper citation must be provided. The Publication Manual of the American Psychological Association, Fifth Edition, contains standards and examples on quotation methods (pages 117 and 292) and on citation methods (pp. 207–214).

Extreme caution must be exercised by students involved in collaborative work to avoid violation of this policy.


2. Writing Skills

Each student must demonstrate proficiency in the use of the English language in all work submitted for this course. Grammatical errors, spelling errors, and writing that does not express ideas clearly will affect your grade. The professor will not provide remedial help concerning writing problems that you might have. Students who are unable to write correctly and clearly are urged to contact their program office for sources of remedial help.

3. Communication by Email

Students must use their NSU email accounts when sending email to faculty and staff and must clearly identify their names and other appropriate information, e.g., course or program. When communicating with students via email, faculty and staff members will send mail only to NSU email accounts using NSU-recognized usernames. Students who forward their NSU-generated email to other email accounts do so at their own risk. SCIS uses various course management tools that use private internal email systems. Students enrolled in courses using these tools should check both the private internal email system and NSU’s regular email system. NSU offers students Web-based email access. Students are encouraged to check their NSU email account daily.

4. The Temporary Grade of Incomplete (I)

The temporary grade of Incomplete (I) will be granted only in cases of extreme hardship. Students do not have a right to an incomplete, which may be granted only when there is evidence of just cause. A student desiring an incomplete must submit a written appeal to the course professor at least two weeks prior to the end of the term. In the appeal, the student must: (1) provide a rationale; (2) demonstrate that he/she has been making a sincere effort to complete the assignments during the term; and (3) explain how all the possibilities to complete the assignments on time have been exhausted. Should the course professor agree, an incomplete contract will be prepared by the student and signed by both student and professor. The incomplete contract must contain a description of the work to be completed and a timetable. The completion period should be the shortest possible. In no case may the completion date extend beyond 30 days from the last day of the term for master’s courses or beyond 60 days from the last day of the term for doctoral courses. The incomplete contract will accompany the submission of the professor’s final grade roster to the program office. The program office will monitor each incomplete contract. If a change-of-
grade form is not submitted by the scheduled completion date, the grade will be changed automatically from I to F. No student may graduate with an I on his or her record. The grade of I does not apply to master’s thesis or doctoral dissertation registrations.

5. Grade Policy Regarding Withdrawals

Course withdrawal requests must be submitted to the student’s program office in writing (via postal mail or email) by the student. Requests for withdrawal must be received by the program office at least three weeks prior to the last day of the term. Program offices will publish specific withdrawal deadline dates for each term (see Academic Calendar on page ii of the catalog). Withdrawals sent by email must be sent from the student's assigned NSU email account. Requests for withdrawal received after 11:59 p.m. est on the withdrawal deadline date will not be accepted. Failure to attend classes or participate in course activities will not automatically drop or withdraw a student from the class or the university. Students who have not withdrawn by the withdrawal deadline will receive letter grades that reflect their performance in the course(s). When a withdrawal request is approved, the transcript will show a grade of W (Withdrawn) for the course. Students with a history of withdrawals risk dismissal. Depending on the date of withdrawal, the student may be eligible for a partial refund. For a complete list of withdrawal deadline dates, please see the academic calendars located at:

6. Other Course Specific Rules

Please ensure that your name, scis usercode, and phone number are available on each assignment handed in. This information must also appear on all e-mail messages and attached documents, as well.

Unless otherwise specified, please use the ESET system to submit all your assignments.

Submissions of assignment files can be in one of the following formats:
   a) Plain text file (ASCII),
   b) PDF file,
   c) Microsoft Office files for Windows

You are responsible for ensuring that the file is readable and free of virus.

Your final grades will be based on all the material that I receive by the last day of the term.

Acknowledgements:
This course and syllabus are based on the course originally developed by Dr. M. Laszlo.