Syllabus: Object-Oriented Programming 3

## Course Number: 10-152-123 (3 Credits)

## Instructor

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### Means of Contact

It is my goal to make myself available to you to aid in your learning, not only in this course, but also as you continue on your educational journey. Always feel free to come to me with any questions or problems you may have. My preferred means of contact is via Slack. My goal is to respond to all correspondence within 24 hours on business days; on weekends, a response may be a bit slower. I also welcome private messages via Slack, emails, and phone calls. If you need to meet with me, the best time is during my office hours. If you need to meet with me at any other time, feel free to contact me, and I will be happy to make alternate arrangements with you.

## Textbook (required)

Title: Head First Design Patterns  
Author: Freeman, Robson  
Publisher: [O’Reilly](http://shop.oreilly.com/product/0636920027812.do)  
Year/Edition: 2004  
ISBN: 9780596007126   
Cost: $33.33 @ Barnes & Noble eBook Available: < $30. Google it.

## Prerequisites

**Course and Course Number Alternative**10-152-123 Object-Oriented Programming 2

## Required Student Materials

USB Storage Device (optional)  
C# 2013 or newer (provided )

## Course Description

Builds upon the object-oriented concepts learned in earlier courses, continuing with an in-depth application of object-oriented design principles and patterns. Learners will translate design patterns from Java and implement them in C# .NET. Additional topics include delegates, iterators, and data structures.

## Course Competencies

1. Identify object-oriented design patterns
2. Explain object-oriented design patterns
3. Translate UML diagrams of object-oriented design patterns into application code.
4. Explain how the main concepts of object-oriented programming (abstraction, encapsulation, inheritance, and polymorphism) work in, or support, the idea of object-oriented design patterns
5. Assign the appropriate object-oriented design pattern to the business problem
6. Implement design patterns in a software development project
7. Draw UML diagrams illustrating how an object-oriented design pattern functions in software
8. Use a modern IDE to develop applications with object-oriented design patterns
9. Test success of the design pattern in a software solution

## Course Outline

1. Strategy pattern
2. Observer pattern
3. Factory pattern
4. Additional patterns
5. Importance of using patterns

## Student Assignments

1. Read textbook
2. Participate in lecture/discussion
3. Complete lab assignments
4. Complete programming assignments
5. Complete quizzes
6. Complete test(s)

## Course Grading

I will assign a letter grade for the course based on the following overall percentages:

A 95-100% A- 92-94%  
 B+ 89-91% B 84-88%  
 B- 81-83% C+ 78-80%  
 C 72-77% F Below 72%

## Due Date Policies

* Assignments are due at 11:59:59 pm on the due date. Due dates may occur on a day of the week other than days the class is scheduled to meet.
* Assignments turned in after the due date will be assessed a 20% penalty. After grading the assignment, if the score is higher than 80%, I will reduce the score to 80%. This applies to the first 2 weeks after the due date.
* Assignments turned in within two weeks after the due date will be assessed a 50% penalty, if the assignment solution is discussed/presented in class. The highest grade possible will be 50%
* Assignments turned in more than two weeks late will not be accepted for any credit. The grade will be a 0%.
* Late assignment submission will not be accepted in the last 2 weeks of the semester.
* No late quizzes will be accepted.
* No late tests will be accepted, except in extreme circumstances, or having made prior arrangements.
* Tests which do not initially receive a passing grade must be retaken until a passing grade is achieved. Retake scores are multiplied by 0.7, yielding a maximum score of 70%.

## Attendance

If you are absent for any sessions during the first two weeks of class without advance communication to me, you will be given a grade of “F”. If you have unexcused absences for 25% of the overall course (four weeks) or more, you will receive a grade of “F” unless you withdraw from the course before it is 80% complete. Please refer to the Mid-State Student Guidelines and Procedures below for information on how to withdraw from the course.

## Employability Skills

EMPLOYABILITY SKILLS - In addition to specific job-related training, Mid-State has identified a set of employability skills that are transferable and go beyond the content of a specific course. The college supports the following skills for all graduates of Mid-State:

\* Act with Integrity   
\* Communicate Effectively   
\* Demonstrate Effective Critical and Creative Thinking   
\* Demonstrate Global Social Awareness

**Act with Integrity** – Students are expected to complete all of the individual work themselves. For the team projects, students are expected to participate for the good of the team. Students will be accountable for their own actions. Student will follow the established rules, regulations, and policies. Student will work and behave ethically.

**Communicate effectively** – Students are expected to participate in the class in a positive and constructive manner. In the case of a student being unable to meet a commitment, they are expected to communicate this with the effected parties.

**Critical Thinking** – Students are expected ask questions in a positive to expand the learning experience and be open to other points of view. Students will apply technology to work processes as warranted.

**Demonstrate Global Social Awareness** – Students will recognize human differences in order to promote a cooperative work and social environment. Student is aware of current world events and potential impact on our community.

## Mid-State Academic Integrity Policy

The Mid-State Board, administration, faculty, and staff believe that academic honesty and integrity are fundamental to the mission of higher education. All students are expected to maintain and promote the highest standards of personal honesty and professional integrity. These standards apply to all examinations, assigned work, and projects. Therefore, a student who is found to have been dishonest, fraudulent, or deceptive in the completion of work, willing to help others to be so, or is found to have plagiarized (presented the work of others as his or her own) is subject to disciplinary action up to and including suspension.

**Instructor’s Clarification:**  
Homework assignments for this course are completed entirely on disks which unfortunately are easy to copy. If I determine that two assignments are identical, I will interview both students in an attempt to determine who did the copying. If I can determine who copied, I will give that student a zero on the assignment and let other instructors know of the infraction. If I determine a student has copied a second time, I will immediately fail (fail, not withdraw) that student in this course.

## Course Expectations

I will take attendance only for record keeping purposes--your grade is not affected by your attendance. On the other hand, I will not repeat a lecture for someone who misses a class. It is your responsibility to make up the work you missed. Get to know your classmates and ask them to help you catch up. If you miss a lecture, come to class early the next day and get a copy of the examples done in class either from a fellow student or the instructor so you will be prepared for the next lecture. Review the notes on the web site.

If you decide you no longer wish to attend this class, it is your responsibility to drop the class. I will not drop students who are no longer attending. If you don’t drop the course, you could receive a grade of “F”.

## Classroom Environment

I attempt to create a classroom environment that is comfortable for learning. If I inadvertently say or do something that offends or hurts you, please tell me (preferably after class) so I can correct the problem. If another student offends you, tell that student how you feel as well. If that doesn't solve the problem, tell me. In order for our labs to be comfortable, productive environments; please do not use the computer to view inappropriate material that might be offensive to others. If you see others abusing their lab computer privileges, report them to your instructor or any other MID-STATE staff member.

Learning can be difficult enough as it is. Help me ensure the classroom and lab is an untroubled place to learn.

## Recording Lectures

You must complete the [Recording Audio/Video Agreement Form](http://instructor.mstc.edu/instructor/bpresley/Web%20Syllabus/Courses/Audio%20and%20Video%20Recording%20Lecture%20Agreement%20Form.pdf) **BEFORE** audio/video recording a lecture.   
  
With prior approval, students may be allowed to audio/video record lectures to enhance their understanding of the topics presented. Audio/video recordings are not substitutes for attending class. If you choose to record lectures, you must sign an agreement which lists the following terms:

* Recordings are not to be distributed without the permission of the instructor. This includes sharing via the Internet, peer to peer file sharing, or other methods.
* Recordings are not to be shared with other classmates unless they are to be used in collaborative assignments, or if the instructor approves sharing for other reasons.
* You will turn off recorders at the request of instructor.

Non-compliance with these terms violates an instructor's intellectual property rights. Students violating this agreement will be subject to disciplinary actions under the Student Code of Conduct.

## Mid-State ADA Statement

It is the policy of Mid-State to comply with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA). Individuals with disabilities are provided with reasonable and eff ective accommodations, when requested, to aff ord equal access to educational opportunity at MidState. Services are provided to prospective and enrolled students who are otherwise qualifi ed with or without accommodations for admission and participation in postsecondary education. See the Student Handbook for more information. http://www.mstc.edu/student-resources/student-handbook

### Other Needs

If you have an illness (e.g. epilepsy, diabetes) or allergy you feel I should know about, please let me know.

If you have other circumstances (family, job, etc.) that might affect your performance in this class, please let me know. We might be able to make accommodations to help ensure your success.

## Acceptable Use Agreement for MSTC Information Technology Resources

All users of Mid-State information technology resources are required to abide by the acceptable use agreement terms and agree to all terms in the Network Policies found at http://www.mstc.edu/student-resources/ technology/network-policies. These terms govern the access to and use of the information technology applications, services, and resources of Mid-State and the information they generate. This access is considered a necessary privilege in order to perform authorized functions. Users shall not knowingly permit use of their entrusted access control mechanism for any purposes other than those required to perform authorized functions. The college reserves the right to, without notice, limit or restrict access and to inspect, remove, or otherwise alter any data, fi le, or system resource that may undermine the authorized use of any Mid-State IT resources. Violations of the Acceptable Use Policy are subject to disciplinary action.

## Credit Hour Expectations

Classroom Presentations are specifically planned learning experiences based on identified objectives, direct instructor involvement, and instructional delivery through physical or electronic learning environments. Instructor to student contact including presentations, labs, demonstrations, and discussion is the equivalent of eighteen 50-minute periods (or 900 minutes) of instruction for each credit hour. Student outside effort is 2 hours for each period of instruction, (or 1800 minutes) for each credit hour.

The unique environment in online/hybrid classes combines the instructor to student contact with the outside effort, so for each credit hour of a class, you can expect to spend 3 hours of learning per week\* in the online environment.  
1 Credit = approximately 3 hours per week\*   
2 Credits = approximately 6 hours per week\*   
3 Credits = approximately 9 hours per week\*   
  
\*These numbers are based on a normal 18-week semester. Accelerated and summer courses will be adjusted accordingly. 

## Learner Roles and Responsibilities

You are an adult learner and as such you are responsible for your own learning. No one else can be a "stand in" for you in the learning process. You will be held accountable for all assigned activities. You matter and what you do does make a difference. You will have an opportunity to share your unique ideas and experiences with your student peers and instructor. The form and content of your participation will determine the level of achievement, satisfaction, and enjoyment that you experience. Because others are depending on you to keep the course moving, you have an obligation to meet deadlines for completing assignments and postings.

## Mid-State Email Policy

All students are granted an email address through Microsoft Office 365. Students will retain their email address for 180 days after the end date of the last semester the student was enrolled in. Important information regarding registration, billing, financial aid, grades, and scheduling information are distributed to students via their Mid-State email account. It is the student’s responsibility to open and read their email regularly. Mid-State email is the college’s primary means of communicating with students. Instructors may utilize the college-assigned email system to mail student academic progress information that is private. It is the student’s responsibility to ensure that their email and network account password is not shared with other persons. Please go to http://www.mstc.edu/studentresources/email-assistance for instructions on accessing your email account. Problems or questions may be directed to the Help Desk at 877.469.6782.

## Student Handbook

Refer to the Mid-State Student Handbook for more information related to student policies and procedures.  http://www.mstc.edu/student-resources/student-handbook

HELP DESK SERVICES:  Students who have questions about accessing Mid-State online services can contact the Help Desk at 877.469.6782. All student online services and Mid-State Help Desk services are available 24 hours a day, seven days a week, including holidays. Additional information regarding technology at Mid-State can be found at http://www/mstc.edu/studentresources/technology.

Student Services: All students, including online students, have access to student services including but not limited to disability services, counseling and advising, career services, and financial aid. To access student services, go to http://www.mstc.edu/student-resources/student-services.