



NORTHWEST
MISSOURI STATE UNIVERSITY
MARYVILLE | KANSAS CITY

School of Computer Science and Information Systems
44-663: App Development in C#.NET (3 hours)
Spring 2020

Instructor: Dr. Ajay Bandi

Section: 01

Email: ajay@nwmissouri.edu

Office hours: M, W, F 1:00 PM – 2:00 PM

M, W 3:00 PM-5:00 PM

Office: CH 2250

Prerequisites: Software engineering and programming proficiency in an object-oriented language.

Textbook and supplementary materials: No textbook is required; all the materials will be posted in Northwest Online.

Course description: Development, deployment and versioning of software components using the Microsoft.NET framework. Emphasis on building sophisticated applications using component-based development and current industry standards. Includes hands-on experience in both server-side and client-side programming using a variety of Microsoft.NET technologies.

Learning Outcomes:

After successfully completing this course students will be able to:

1. Describe key concepts of the current .NET Framework
2. Apply modern tools for collaborative, professional software development
3. Apply key concepts of programming and data structures in C#
4. Describe separation of concerns and layered architecture design
5. Implement HTTP services for RESTful applications with the Web API framework
6. Work with data in .NET MVC
7. Apply Entity Framework (EF) object-relational mapping (ORM) framework for .NET
8. Manage evolving web apps with migrations
9. Understand and implement authentication and authorization
10. Apply the.NET framework to design and build apps, functions, sites, and services

Expectations:

This course includes the development of unique, creative applications. Students should expect to spend at least 2-3 hours on out-of-class work for every one hour of instruction.

Instructional methods: Instructional methods include lectures, practical demonstration, classroom practice, class projects, individual projects, and interactive question and answer sessions.

Graded course requirements:

Category	Points
2 Quiz Exams @ 100	200
Final Project	50
Assignments	60
Miscellaneous (quizzes, class participation, other projects)	90
Total Points	400

Grading scale:

Graduate Credit		Undergraduate Credit	
Percent Range	Grade	Percent Range	Grade
90-100%	A	88-100%	A
>= 80% and < 90%	B	>= 78% and < 88%	B
>= 70% and < 80%	C	>= 68% and < 78%	C
>= 60% and < 70%	D	>= 58% and < 68%	D
below 60%	F	below 58%	F

Tentative Course outline/major topics studied:

Week	Day (Date)	Materials to be covered
Week 1	Wednesday (1/15)	Course Orientation Installation of Visual Studio
	Friday (1/17)	Introduction to C# .NET framework
Week 2	Monday (1/20)	Martin Luther King Day -- no classes
	Wednesday (1/22)	Programming concepts Datatypes, namespaces, properties, class, control structures
	Friday (1/24)	
Week 3	Monday (1/27)	Delegates
	Wednesday (1/29)	Events Inheritance
	Friday (1/31)	Assignment 01
Week 4	Monday (2/03)	LINQ
	Wednesday (2/05)	Lambda Expressions
	Friday (2/07)	Assignment 02
Week 5	Monday (2/10)	Windows forms
	Wednesday (2/12)	Testing

Week	Day (Date)	Materials to be covered
	Friday (2/14)	Assignment 03
Week 6	Monday (2/17)	Review for Exam 01
	Wednesday (2/19)	Exam 01
	Friday (2/21)	Professional Advisory Team Meeting (No class)
Week 7	Monday (2/24)	Introduction to MVC Architecture
	Wednesday (2/26)	Brainstorm the requirements for MVC project
	Friday (2/28)	Model, Controller , Views
Week 8	Monday (3/02)	Razor and Scaffolding
	Wednesday (3/04)	Routing
	Friday (3/06)	Assignment 04
Week 9	Monday (3/09)	Spring Break
	Wednesday (3/11)	
	Friday (3/13)	
Week 10	Monday (3/16)	Data Seeding and Data Migration
	Wednesday (3/18)	Sorting and filtering
	Friday (3/20)	Entity Framework
Week 11	Monday (3/23)	Entity Framework
	Wednesday (3/25)	Review for exam 02
	Friday (3/27)	Exam 02
Week 12	Monday (3/30)	JQuery and AJAX
	Wednesday (4/01)	JQuery and AJAX
	Friday (4/03)	Assignment 05
Week 13	Monday (4/06)	Web API
	Wednesday (4/08)	Test Web API
	Friday (4/10)	Assignment 06
Week 14	Monday (4/13)	Web API Routing
	Wednesday (4/15)	Web API configure
	Friday (4/17)	Review on Web API
Week 15	Monday (4/20)	Work on final projects
	Wednesday (4/22)	
	Friday (4/24)	
Week 16	Monday (4/27)	
	Wednesday (4/29)	
	Friday (5/01)	
Final exam – Wednesday May 6, 2020 from 2:00 to 4:00 pm		

Disclaimer: Course schedule is subject to change and you will be responsible for abiding by any such changes. Your instructor will notify you of any changes.

Academic Calendar: <http://www.nwmissouri.edu/academics/calendar.htm>

Final Exam Schedule: <http://www.nwmissouri.edu/registrar/finals.htm>

Attendance: This course will have many class activities, so attendance is strongly suggested. Some class exercises may have points associated with them and may not be announced in advance. A student who misses such an exercise due to an unexcused absence will not be allowed to make it up and will receive a zero. It is the responsibility of the student to promptly notify his or her instructor when unable to attend class. Please refer to the university policy on attendance at <https://www.nwmissouri.edu/policies/academics/Attendance.pdf>

Late Submission Policy for lab assignments: Each assigned, graded activity will have a due date posted and are expected to be completed by due date. All the submissions must be submitted through Northwest Online. Any submission up to 24 hours after the due date will be considered as a late submission. The score for late submissions will have 10% of the maximum score deducted from the actual points.

Quizzes and In-class Activities: There may sometimes be short quizzes or in class activities in class, usually worth two points or less. These quizzes or activities will not always be announced in advance. They will usually be given at any point of the class time. If you arrive late or miss a quiz or an activity due to an unexcused absence, you will receive a grade of zero on the quiz or activity. Different sections may have quizzes or activities on different days.

Arriving late for class: Students are expected to be on time for each class period.

Exam policies: Dates for all exams will appear on the course website under the weekly modules. If you must miss an exam, it is your responsibility to notify the instructor prior to the exam.

Make-ups for written exams will be given only for valid and verifiable reasons. Valid reasons include illness, family emergencies, and university-sponsored trips. Written documentation with suitable verification must be supplied before a make-up will be allowed.

There will be no make-ups for lab exams. If you miss a lab exam for a valid reason, the lab final (suitably pro-rated) will be used as the make-up.

Lab exams are submitted via Canvas. It is the student's responsibility to ensure that the correct files is dropped in the correct assignment. If no submission is found in the dropbox, the student receives a grade of zero on the lab exam.

All exams are closed book, closed notes, unless explicitly noted in writing by the instructor.

No calculators, cell phones, or other electronic devices can be used during exams or quizzes unless explicitly allowed by the instructor.

Final exams: If an emergency occurs that prevents the administration of a course scheduled final examination, the final course grades will be calculated based on the work in the course completed to that point in time and the faculty member's considered judgment. Final exams will not be rescheduled, and a grade of "I" will not be given as a result of an institutional cancellation of a final examination. This final exam policy does not apply to online courses. Final exam schedule can be available at <https://www.nwmissouri.edu/registrar/finals.htm>

Administrative drop: An instructor may request the Office of the Registrar delete a student from a course roster if the student has not met the prerequisite for the course as stated in the catalog, or as a result of non-attendance in the course.

University communications: Any course related announcements will be communicated via the **Announcements** page on the course website in Northwest Online or your Northwest e-mail account. Students are expected to use their Northwest student email account for any electronic correspondence within the university. Students are also strongly advised to check their email on a regular basis. E-mails must include the course number (44-663) in the subject line. For security reasons, e-mails that do not include an appropriate entry for the subject or unsigned e-mails will not be replied.

Professionalism: Students are expected to behave in a professional manner in their dealings with each other, the teaching assistant, and the instructor. E-mails should be politely written, use proper grammar, and follow the rules of capitalization.

Academic integrity policy: The students, faculty, and staff at Northwest endeavor to sustain an environment that values honesty in academic work, that acknowledges the authorized aid provided by and intellectual contributions of others, and that enables equitable student evaluation. Please refer to Northwest Missouri State University's Academic Integrity Policy at <http://www.nwmissouri.edu/policies/academics/Academic-Integrity.pdf>

Special accommodations policy: Northwest Missouri State University complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 [ADA] and the ADA Amendments Act of 2008 [ADAAA]. If a student has a disability that qualifies under the ADA/ADAAA and requires accommodations, they should contact the Office for Equity and Accessibility for information on appropriate policies and procedures at 660.562.1639, or pjp@nwmissouri.edu / ADA@nwmissouri.edu. For the university policy on disability accommodation refer to <http://www.nwmissouri.edu/policies/student/Disability-Accommodation.pdf>

Non-discrimination and anti-harassment policy: Northwest Missouri State University is committed to maintaining an environment for all faculty, staff, students, and third parties that is free of illegal discrimination and harassment. Please refer to the Non-Discrimination and Anti-Harassment Policy at <http://www.nwmissouri.edu/diversity/titlevi.htm>

Family Educational Rights and Privacy Act (FERPA) policy: Family Educational Rights and Privacy Act of 1974, as amended (commonly known as the Buckley Amendment), is a federal law which provides that colleges and universities will maintain the confidentiality of student education records. Please refer to the Family Educational Rights and Privacy Act (FERPA) Policy at <http://www.nwmissouri.edu/policies/academics/Family-Educational-Rights-and-Privacy-Act.pdf>