

# MONTGOMERY COLLEGE

Fire Science Programs

## SYLLABUS

### FIRE103: Building Construction for Fire Protection (3 credits)

Fall 2018

#### I. Instructor Information

Lead Instructor: Mark Bird  
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Office Hrs: by appointment

Fire Science Program Coordinator: Professor Kathy Dayton  
Department Phone: 240-567-7580

Montgomery College website: [www.montgomerycollege.edu](http://www.montgomerycollege.edu)  
Program Website: [www.montgomerycollege.edu/firescience](http://www.montgomerycollege.edu/firescience)

#### II. General Course Information

Catalog Description:

Examines the components of building construction that relate to fire and safety. The focus of this course is on firefighter safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. (R only) Assessment levels: ENGL101/101A, MATH093/096, READ120. Three hours each week.

#### III. Specific Outcomes

By the end of the course, the student will be able to:

- Demonstrate an understanding of building construction as it relates to firefighter safety, buildings codes, fire prevention, code inspection and firefighting strategy and tactics.
- Classify major types of building construction.
- Analyze the hazards and tactical considerations associated with the various types of building construction.
- Explain the different loads and stresses that are placed on a building and their interrelationships.
- Identify the principle structural components of buildings and demonstrate an understanding of the functions of each.
- Differentiate between fire resistance and flame spread, and describe the testing procedures used to establish ratings for each.
- Classify occupancy designations of the building code.
- Identify the indicators of potential structural failure as they relate to firefighter safety.

#### IV. Texts and Supplies

Required text: Brannigan's building Construction for the Fire Service, 5th. Corbett, G. and Brannigan, F. (2016) Jones & Bartlett Learning. ISBN: 978-1284136135

Required: Internet access for emails and coursework. Montgomery College computer labs are available. This course will utilize a Blackboard supplemental site available through MyMC.

Digital camera.

#### V. Grading

##### A. Requirements

This is a comprehensive course; in order for the student to pass the course, regardless of the student's grade average in the course, the **student must take the final exam** and have no more than one absence. As this is a required course in the Fire and Emergency Services Management program, a course grade of C or higher is required for transfer.

##### B. Course Grading

Attendance/Class Discussions	150 points
Chapter Assessments	350 points
Projects	350 points
Final Exam	100 points
Quizzes	tbd

##### Attendance/Class Discussion (150 points)

Class discussion and on-time attendance is required. All lecture material is essential, and a major portion of this course involves student participation in discussions. Consequently, a significant portion of the final grade is based on attendance and active participation in all class activities. **Students can only miss one class; however, because of the intensity and speed of this course it is strongly suggested that you attend all classes.**

Attendance will be taken at the beginning of each class period. It is the student's responsibility to see the instructor immediately following class if they arrived after the attendance check to have their attendance record corrected.

##### Chapter Assessments (350 points)

There are fourteen (14) assignments that follow the chapters in the textbook. Assignments consist of short-answer questions. The assignments have specific due dates (listed in Course Schedule). Late assignments are not accepted and there are no make-ups allowed.

Projects (350 points)

1. Scavenger Hunt (100 points)
2. Station Night Club Evaluation (150 points)
3. Chelsea Fire Evaluation (100 points)

Additional information on each assignment will be given in class and listed in the assignment in Blackboard.

Final Exam (100 points)

There will be a written final exam worth **100 points**. It will be multiple choice. The test will cover all material covered in class (lecture, discussions, videos) and most importantly, reading from textbook.

C. Standards

Final grades will be based on percentage of points scored:

90% - 100%	A
80% - 89.99%	B
70% - 79.99%	C
60% - 69.99%	D
Up to 59.99%	F

D. Make-up Policy

If a student knows that he/she will need to miss a test ahead of time, the student must notify the Instructor **at least one week before the scheduled exam**; otherwise no make up test will be given. If an emergency occurs, you must contact the Instructor within 24 hours of the exam (via phone or email). You must have documentation for your absence (car repair bill, police report, proof of major illness, etc). No make up tests will be given without the proper documentation or approval of instructor. In addition, please see attendance requirement, as it still applies to test dates.

E. Late Policy

Students are expected to arrive for class on time. Arriving late is distracting to other students and the instructor. Three (3) late arrivals, as documented by the instructor, will constitute (1) full absence and will apply to attendance policy.

F. Audit Policy

Students auditing the class are exempted from tests. However, students are required to attend all classes and participate in the class discussions.

## VI. Classroom policies

### A. Attendance

Attendance will be taken at the beginning of each class. Students are expected to attend class on time. If you have excessive absences (more than **ONE**), as defined in the Student Handbook and College Catalog, you may be dropped from the course. *Withdrawal from the course is the responsibility of the student.* In addition, this class is designed to be interactive and you must be willing and able to express your views on the topics discussed in class and willing to interact with other students in a close environment.

### B. Academic Honesty

All students are expected to achieve their goals with academic honesty. Cheating, plagiarism, and/or other forms of academic dishonesty or misconduct, examples of which are to be found in the Student Code of Conduct in the Student Handbook, are not tolerated. Students caught violating the code of conduct will receive a grade of zero for that assignment/test. A second incident will result in a failing grade for the class and referral to the Dean of Students.

The Student Code of Conduct is a document that outlines the principles, policies and procedures that govern student life and encourages responsibility and respect for the rights and viewpoints of others. The Student Code of Conduct describes acceptable standards of student behavior and academic integrity, disciplinary procedures, and possible sanctions when the Code of Conduct is not followed. Academic dishonesty can result in an "F" on the assignment or test, or "F" in the course. Sanctions for non-academic misconduct and more serious academic dishonesty can include probation, suspension, or dismissal. Student disciplinary records are maintained in the Office of the Dean of Student Development and are kept for five years. They will be disclosed only in accordance with applicable federal and state law.

For this course, students are to complete all online assignments individually – no assistance from or collaboration with any other person.

### C. Classroom Conduct

- Please refer to the Student Handbook. The instructor reserves the right to remove any student who is disruptive.
- As a courtesy to others, please turn off/mute cell phones and electronic devices prior to class

All infractions will be reported to the Department Chair and the Dean of Students so that an appropriate response can be made. In short, no student will be permitted to disrupt the educational experience for the rest of the class. Academic freedom refers to the right of the individual to express an opinion that may or may not be held by the majority. However, it is each student's responsibility to express opinions respectfully and without infringing on the safety or rights of others.

D. Support Services

Any student who may need an accommodation due to a disability, please make an appointment to see the instructor during office hours. A letter from Disability Support Services (122CB) authorizing your accommodations will be needed. Any student who may need assistance in the event of an emergency evacuation must identify to the Disability Support Services Office; guidelines for emergency evacuations for individuals with disabilities are found at:

[www.montgomerycollege.edu/Departments/dispvc/evacprocedures.htm](http://www.montgomerycollege.edu/Departments/dispvc/evacprocedures.htm)

E. Cancellation of Classes/Delay of Classes

If classes are cancelled due to inclement weather, you are still responsible for the material from the textbook, and should continue to follow the schedule provided in the syllabus for reference. If there are any foreseeable changes in the schedule it will be announced in class or on Blackboard. Note: Montgomery College does NOT follow Montgomery County Public Schools closures.

*If the college opens late:*

- ◆ *If a class can meet for 50% or more of its regularly scheduled meeting time **OR** if the class can meet for 50 minutes or more, it will meet.*
- ◆ Montgomery College will always operate on its regular schedule unless otherwise announced. Depending on the nature of the incident, notifications of emergencies and changes to the College's operational status will be communicated through one or more communication methods including the College's web page <http://montgomerycollege.edu>.
- ◆ For the most up-to-date information regarding College openings, closings, or emergencies, all students are encouraged to sign up for email and text alerts via Montgomery College ALERT. Registration information is available at [www.montgomerycollege.edu/emergency](http://www.montgomerycollege.edu/emergency).

F. Tobacco Use Policy

Montgomery College has a Smoke and Tobacco Free Policy which **prohibits smoking or the use of other tobacco (including 'vape' products)** on any of its campuses or other property. Students who smoke or use tobacco products will be considered in violation of the student conduct code and their behavior will be reported to the Dean of Student Development's office for the appropriate disciplinary action including probation, suspension, or dismissal. If you have any questions about this new policy, please contact the Vice President and Provost's Office, the Office of the Dean of Student Development or the Campus Security Office."

G. Incomplete Grades

A grade of I (incomplete) may be assigned only upon request of the student and agreement of the course instructor.

To receive an "I" (incomplete) grade, students must obtain a contract form from the instructor and negotiate a formal agreement with the course instructor specifying the work done and the remaining work needed to complete the course and earn a grade.

Normally, the use of an "I" grade is limited to bona fide emergency situations that occur at the end of a semester and that prevent students from completing all course requirements in a timely fashion to meet the final grade submission requirements of the Office of Admissions and Records. It is the responsibility of the instructor to specify the exact work to be completed to meet course requirements. The instructor and the student should hold a reasonable expectation that course requirements can be completed within the four weeks following the beginning of the next full semester. If a final grade has not been submitted after four weeks into the next semester, the "I" automatically reverts to a failing grade (F).

VII. Additional Information

It is expected that the student will:

- ◆ be responsible for obtaining any information and class notes from another classmate if he/she missed class
- ◆ have completed the assigned readings **before** each class session
- ◆ be prepared to discuss the assigned readings and participate in the discussion
- ◆ be respectful of the instructor and other students
- ◆ arrive on-time
- ◆ be open to new ideas and concepts
- ◆ do his/her best in this class

Student Email

All Montgomery College students have been assigned an email address. Students can check their email through MyMC. The format for your email address is: [MyMCID@montgomerycollege.edu](mailto:MyMCID@montgomerycollege.edu). Your email password will be the same as your My MC password. It can be changed within My MC. Your email account will be an official means of communication between you and Montgomery College. It is recommended that you check this account several times a week for official communication from the college.

Contacting Your Instructor

Preferred communication is through email (listed at top of syllabus). Please ensure that you have a working email address and in the "Subject" line you reference FIRE103.

### **Blackboard – Technical Issues:**

If during the course you experience a technological problem with Blackboard, you need to follow the procedures below. Following these procedures **may** allow you to re-submit an online assessment or be granted an extension to a course deadline (if necessary) depending on the circumstances and approval of your professor.

1. Call the IT Service Desk at 240-567-7222 to report your problem.
2. Write down the work order number received from the IT Service Desk.
3. Send an email to your professor identifying: the date and time of the phone call, the work order number, the nature of the problem, the steps to resolution suggested by Blackboard and the outcome of the phone call. This email must be sent within 1 hour of contacting the IT Service Desk.

\*If in doubt, contact the IT Service Desk if you are experiencing a problem. Students who do not follow the instructions above will not be able to resubmit work due to technical errors.

### **Important Student Information Link**

In addition to course requirements and objectives that are in this syllabus, Montgomery College has information on its web site (see link below) to assist you in having a successful experience both inside and outside of the classroom. It is important that you read and understand this information. The link below provides information and other resources to areas that pertain to the following: student behavior (student code of conduct), student e-mail, the tobacco free policy, withdraw and refund dates, disability support services, veteran services, how to access information on delayed openings and closings, how to register for the Montgomery College alert System, and finally, how closings and delays can impact your classes. If you have any questions, please bring them to your professor. As rules and regulations change they will be updated and you will be able to access them through the link. If any student would like a written copy of these policies and procedures, the professor would be happy to provide them.

**By registering for this class and staying in this class, you are indicating that you acknowledge and accept these policies.**

<http://cms.montgomerycollege.edu/mcsyllabus/>

# FIRE103 – Building Construction for Fire Protection

Fall 2018  
Course Schedule

Class Date	Class Discussion/Instruction	Assignment	Assignment Due by 2359
	<b>Module 1</b>		
9/10	Introductions and Administrative Matters Chapter 1 – Introduction	Chapter 1 Assignment	9/16
9/17	Chapter 2 – Concepts of Construction	Chapter 2 Assignment	9/23
9/24	Chapter 3 – Methods and Materials of Construction, Renovation and Demolition	Chapter 3 Assignment	9/30
	<b>Module 2</b>		
10/1	Chapter 4 – Building and Fire Codes Chapter 5 – Fire Behavior and Building Construction	Chapter 4 Assignment Chapter 5 Assignment	10/7
10/8	Chapter 6 – Features of Fire Protection	Chapter 6 Assignment	10/14
	<b>Module 3</b>		
10/15	Chapter 7 – Wood-Frame Construction	Chapter 7 Assignment	10/21
10/22	Chapter 8 – Heavy Timber and Mill Construction	Chapter 8 Assignment	10/28
10/29	Chapter 9 – Ordinary Construction	Chapter 9 Assignment	11/4
11/5	Chapter 10 – Non-combustible Construction	Chapter 10 Assignment	11/11
11/12	Chapter 11 – Fire Resistive Construction	Chapter 11 Assignment Assignment: Types of Buildings Scavenger Hunt	11/18
	<b>Module 4</b>		
11/19	Chapter 12 – Firefighting Concerns of Green Construction	Chapter 12 Assignment Assignment: Chelsea Fire Evaluation	11/25
11/26	Chapter 13 – Specific Occupancy-Related Construction Hazards	Chapter 13 Assignment Assignment: Station Night Club Evaluation	12/2
12/3	Chapter 14 – Collapse Final Exam – distributed	Chapter 14 Assignment	12/9
12/10	<b>Final Exam due</b>		