

# Syllabus 2021-2022



South Portland, Maine 04106

## Fire Science

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| <b>Title: Building Construction for the Fire Service</b> | <b>Catalog Number: FIRE 115</b>                 |
| <b>Credit Hours: 3</b>                                   | <b>Total Contact Hours: 45</b>                  |
| <b>Lecture (or Lab): Lecture (Brightspace/Zoom/Live)</b> | <b>Instructor: Asst. Professor R. Lindstedt</b> |
| <b>Office Hours – Location: M-F 0900 to 1500 hours</b>   | <b>Contact Information:</b>                     |
| <b>Via E-mail</b>  | <b>E-mail: Rlindstedt@smccme.edu</b>            |

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|--|----------------------|---------------------------|
| Course Schedule: BUILDING CONSTRUCTION FIRE 155-01 |                      |                           |
| DAY and TIME                                       | DATES                | LOCATIONS                 |
| Monday 1:00pm-2:30pm                               | 8/31/2021-12/20/2021 | Online, Brightspace, Zoom |
| Thursday 08:00am-09:30am                           | 8/31/2021-12/20/2021 | Howe Hall Room 205        |

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|--|----------------------|---------------------------|
| Course Schedule: BUILDING CONSTRUCTION FIRE 155-02 |                      |                           |
| DAY and TIME                                       | DATES                | LOCATIONS                 |
| Monday 1:00pm-2:30pm                               | 8/31/2021-12/20/2021 | Online, Brightspace, Zoom |
| Thursday 10:00am-11:30am                           | 8/31/2021-12/20/2021 | Howe Hall Room 205        |

|  |                      |                           |
|--|----------------------|---------------------------|
| Course Schedule: BUILDING CONSTRUCTION FIRE 155-03 |                      |                           |
| DAY and TIME                                       | DATES                | LOCATIONS                 |
| Tuesday 2:00pm-4:45pm                              | 8/31/2021-12/20/2021 | Online, Brightspace, Zoom |

## Course Syllabus

### Course Description :

This course introduces the components of building construction that relate to the fire service and life safety. The focus of this course is on firefighter safety and the assessment of buildings related to this topic. The elements of construction and the design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating during emergencies.

### Required Text:

**Brannigan's Building Construction for the Fire Service, Sixth Edition**

Glenn P. Corbett; Francis L. Brannigan ©2021

ISBN: 9780000177315 (\*This will get you the print version which will also provide access to the E-Book).

**Course Objectives After successfully completing the course, the student will be able to:**

- Identify the basic principles of building construction
- Identify forces acting on buildings
- Identify methods of construction associated with various types of buildings
- Identify materials associated with various types of buildings
- Recognize and be able to describe different types of building construction
- Evaluate building materials and their implications for fire-ground operations
- Review and analyze case studies from publications and published reports
- Analyze building types, methods of construction and materials used to assess the various hazards and predict the degree of associated risk
- Conduct a field studies that demonstrate mastery of concepts presented in class
- Create a report associated with a field study and present important information to the rest of the class
- Develop a lifelong appreciation regarding the importance of “knowing the enemy”
- Demonstrate the ability to complete a pre-fire analysis of a structure detailing; conditions, materials and hazards that may impact firefighter safety prior to fire ground operations.

**Topical Outline of Instruction (\*Subject to Change with Advanced Notice)**

|         |  |
|---------|--|
| Week 1  | Introductions, Zoom, Brightspace, course review, syllabus review, PCNTG (pre-class note taking guides), quizzes, Writing Assignments, CH 1: Introduction |
| Week 2  | CH 2: Concepts of Construction   |
| Week 3  | CH 3 Methods and Materials of Construction, Renovation, and Demolition   |
| Week 4  | CH 4: Building and Fire Codes  |
| Week 5  | CH 5: Fire Behavior and Building Construction  |
| Week 6  | CH 6: Features of Fire Protection  |
| Week 7  | CH 7: Non-Fire Building Systems (MID-TERM)   |
| Week 8  | CH 8: Wood Frame Construction  |
| Week 9  | CH 9: Heavy Timber and Mill Construction (might be CH 8 part II we'll see how it goes)   |
| Week 10 | CH 10: Ordinary Construction   |
| Week 11 | CH 11: Non-combustible Construction  |
| Week 12 | CH 12: Fire Resistive Construction   |
| Week 13 | CH 13: Firefighter Concerns on “GREEN” Construction  |
| Week 14 | CH 14: Specific Occupancy Related Construction Hazards   |
| Week 15 | CH 15: Collapse  |
| Week 16 | Final  |

**Course Requirements**

Students will be asked to complete several weekly assignments (Chapter Notes (GPCNTG), Quizzes, Writing Assignments, and Capstone Chapters as well as participating in “ZOOM” Sessions during the week). Considering the nature of the material presented during this course, missing class time, ZOOM time, or assignments can have significant negative consequences not just on a student’s grade but on their functional safety on the fireground. Absences and late arrivals (late arrivals initially or from any break will count for ½ of a missed class) and will reduce a student’s final grade earned in this class. **Missing 2 (two) days of class time will be grounds for course failure.**

All class activities conducted on the date of absence will be given a grade of (0) zero. Attendance is expected at all classes (live and/or Zoom) unless otherwise noted. Attendance will be recorded and engagement will be evaluated both being used to provide information for final grade achievement. Fire 115-03 only meets once per week so the attendance policy might vary in relationship to classes that meet 2 to 3 times per week.

### **Student Evaluation and Grading:**

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|----------------------------------|---|
| • Quizzes                        | 20% (1 per week*)                                 |
| • G-PCNTG                        | 15% (1 per week*)                                 |
| • Writing Assignments/Activities | 20% (1 per week*)                                 |
| • Exams (2)                      | 30% (15% each) (midterm and final)                |
| • Student Capstone Project       | 10% (capstone) (a chapter will be due each week*) |
| • Attendance/engagement          | 5% (assessed weekly)                              |

\*(unless otherwise noted)

**Assignments:** All assignments are expected on time (typed and stapled as well as posted to Brightspace unless otherwise indicated). Late work (only 1 week allowed for late work) will receive no more than 50% of full credit. Any assignment turned in after the one-week penalized period will be given a grade of zero.

- Quizzes are based on the pre-class reading/activities and previous week discussions/activities
- Assigned reading is the responsibility of the student.
- There will be two closed book exams covering material presented.
- There will be several case study assignments required throughout the semester
- There will be a semester capstone project due at the end of the semester, we will do it one chapter at a time during the semester.

### **Attendance Policy**

Considering the nature of the material presented during this course, missing class time (ZOOM time) or assignments can have significant negative consequences not just on a student's grade but on their functional safety on the fireground. Absences, late arrivals, early departures (late arrivals initially or from any break will count for ½ of a missed class) and will reduce a student's final grade earned in this class. **Missing 2 (two) days of class time will be grounds for course failure.** All class activities conducted on the date of absence will be given a grade of (0) zero. Attendance is expected at all classes (live and/or Zoom) unless otherwise noted. Attendance and engagement will be assessed as part of your semester average.

### **Current policy for Administrative Failures (AF)**

Face to face classes:

An Administrative Failure (a final grade of AF) identifies students who have stopped attending class and who have had no contact with the faculty member for a period in excess of one week. A student may be administratively failed after missing one more consecutive class meeting than the number of class meetings per week (4 for a class that meets three times a week, three for a class that meets twice a week, two for a class that meets once a week).

Asynchronous online classes:

A student in an online course may be administratively failed after not submitting an assignment, responding to a discussion question, completing a graded assignment, or otherwise performing some type of activity that shows active involvement in the course for a period of two weeks.

At their discretion, faculty may reinstate students who resume attending after the grade has been assigned.

### **End-of-Course Evaluation**

Students complete evaluations for each course attended at SMCC. Evaluations are submitted online and can be accessed through the student portal. Students can access the course evaluations beginning one week before the end of classes. The deadline for submission of evaluations occurs Monday at 5 p.m. following the last day of the class. You will receive an e-mail to your student e-mail account when course evaluations are available.

### **For Classes with any Face- to -Face Component**

While the syllabus represents current plans, there may be changes during the semester in response to the on-going Covid-19 pandemic. Depending on the progression of the virus, it is possible that the College may have to suspend face-to-face instruction for part of the semester. If we must stop face to face instruction anytime during the semester, your instructor will contact you via your SMCC email or the Brightspace course homepage to discuss next steps for the course.

### **ADA Statement**

Southern Maine Community College is an equal opportunity/affirmative action institution and employer. For more information, please call (207) 741-5798. If you have a disabling condition and wish to request accommodations in order to have reasonable access to the programs and services offered by SMCC, you must register with the Disability Services Coordinator, Sandra Lynham, who can be reached at 741-5923. Further information about services for students with disabilities and the accommodation process is available upon request at this number. Course policies about online testing are modified to suit each individual's accommodations.

### **The Learning Commons:**

The library, tutoring and writing centers, and reference/research assistance (typically located on the second floor of South Portland's Campus Center and in the Midcoast's LL Bean Learning Commons and Health Science Center) will be fully available online during the fall 2020 semester.

Here you can find free academic support through individually scheduled and drop in, online tutoring. You can also find information literacy/research librarians, and professional academic strategy/planning mentoring online. While the physical space of the Learning Commons will not be available at this time, we can also work with you to set up zoom classrooms for small group study. Services are offered by appointment or as drop-in assistance.

To access services:

- Visit My Learning in My Maine Guide or
- Select the "tutoring needed" button if it appears inside your Brightspace course.

Whether On Site or Online, students have consistently reported that the Learning Commons is a friendly, risk-free, and helpful place to seek academic support. It has also been shown that those who make use of the Learning Commons do better in a course than those who do not. We strongly encourage you to take advantage of this valuable and enjoyable resource.

### **SMCC Pay-for-Print Policy**

Each semester students receive a \$20 printing credit. The balance resets at the end of the semester and any remaining credits are removed. The College's pay-for-print system monitors printing on all printers (including those in general access labs, library printers, Tutoring Services, Campus Center Lounge and technology labs). Be sure to log OUT of the system when you've finished your printing, to prevent unauthorized access to your account. Students can check the number of pages they have printed by using the Printing Balance tool available on SMCC computers (located in the lower right corner of the screen, near the clock). Departments with work study students who need to print documents for the department should contact the Help Desk at 741-5696 to have a special account set up. To find ways to reduce your printing charges, please go to the IT Help tab on My SMCC. If you have questions about the pay-for-printing policy or your printing charges, please contact the Help Desk at 741-5696 or send an e-mail to [helpdesk@smccme.edu](mailto:helpdesk@smccme.edu).

### **Refunds**

Print jobs are eligible for a refund in the event of mechanical or electronic error on the part of the printer, print server, or software used to submit the job. Jobs are not eligible for a refund in cases where the job was not set up correctly, was submitted multiple times, or the student is not satisfied with the result. To request a refund, please bring the offending print to the IT Department in the basement of the Ross Technology Center. Refunds will be granted in the form of a credit to the student's account.

### **Add-Drop Policy**

Students who drop a course during the one-week "add/drop" period in the fall and spring semesters and the first three days of summer sessions receive a 100% refund of the tuition and associated fees for that course. Please note any course that meets for less than the traditional semester length, i.e., 15 weeks, has a pro-rated add/drop period. There is no refund for non-attendance.

### **Withdrawal Policy**

A student may withdraw from a course only during the semester in which s/he is registered for that course. The withdrawal period is the second through twelfth week of the Fall and Spring semesters and the second through ninth week of twelve-week Summer courses. This period is pro-rated for shorter-length courses, usually 75 percent of course meeting times; please check with the Registration Office. To withdraw from a course, a student must complete and submit the appropriate course withdrawal form, available at the Registration Office. This process must be completed either in person or by using SMCC e-mail accounts.

## **Plagiarism Statement**

If an instructor suspects that a student has knowingly committed a violation defined in the Maine Community College System Policy on Student Grade Appeals and Academic Misconduct, the instructor has the authority to review the alleged misconduct and determine the grade that the student should receive for the assignment and the course. **The instructor may assign a failing grade for the assignment or course and may require the student to complete additional work for the course.** The instructor may consult with the department chair and/or the College's chief academic officer prior to making such decisions. If a student seeks to challenge an instructor's determination, the student should submit a grade appeal. Grade appeal forms are available in the Advising Office on the South Portland Campus or in the administrative offices in the Learning Commons on the Midcoast Campus. An instructor may also refer the matter to the College's disciplinary officer for review under the procedures of the MCCS Student Code of Conduct