# Syllabus for: Building Construction For Fire Protection FT 6

<table>
<thead>
<tr>
<th>Semester &amp; Year:</th>
<th>Spring 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course ID and Section Number:</td>
<td>FT-6-E5530 035530</td>
</tr>
<tr>
<td>Number of Credits/Units:</td>
<td>Three (3) Semester hours of credit</td>
</tr>
<tr>
<td>Day/Time:</td>
<td>Tuesday, 18:05 to 21:15</td>
</tr>
<tr>
<td>Location:</td>
<td>AJ 108</td>
</tr>
<tr>
<td>Instructor’s Name:</td>
<td>Kris Kalman &amp; Jon Chambers</td>
</tr>
</tbody>
</table>
| Contact Information: | Office location and hours: TBD  
Phone: 707-601-8597  
Email:jchambers@hbfire.org |

## Course Description:
An introduction to the components of building construction and how they relate to fire and life 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.

## Student Learning Outcomes:
1. Describe building construction as it relates to firefighter safety, building codes and inspections, fire prevention, and firefighting strategies.
2. Analyze the hazards and tactical considerations associated with various building types and occupancies.
3. Identify building design, materials, and systems and their relationship to fire behavior and potential structural failure.

## Special accommodations: College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodations document to me as promptly as possible so that necessary arrangements can be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact Disabled Students Programs and Services.

## Academic Misconduct:
Cheating, plagiarism, collusion, abuse of resource materials, computer misuse, fabrication or falsification, multiple submissions, complicity in academic misconduct, and/or bearing false witness will not be tolerated. Violations will be dealt with according to the procedures and sanctions proscribed by the College of the Redwoods. Students caught plagiarizing or cheating on exams will receive an “F” in the course.

The student code of conduct is available on the College of the Redwoods website at: [http://redwoods.edu/District/Board/New/Chapter5/AP%205500%20Conduct%20Code%20final%2002-07-2012.pdf](http://redwoods.edu/District/Board/New/Chapter5/AP%205500%20Conduct%20Code%20final%2002-07-2012.pdf)

Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods homepage.
College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.
COURSE:
BUILDING CONSTRUCTION FOR FIRE PROTECTION FT 6
Three (3) Semester hours credit
Prerequisites: None
Recommended Prep: ENGL-150 and FT-3

INSTRUCTOR:
Jon Chambers/Kris Kalman
Office # AJ108, Administration of Justice Building
Office Hours: TBD, Office Phone: 707-601-8597
Email Address: jchambers@hbfire.org

E-mail correspondence with the instructor should include “FT6 Spring 2014” in the subject line.

COURSE DESCRIPTION:
An introduction to the components of building construction and how they relate to fire and life 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.

EDUCATIONAL MATERIALS:

The text is available through the CR Bookstore. The Bookstore is located next to the cafeteria. The bookstore phone number is 476-4130.

You may also purchase textbooks at their new online bookstore, located at:
http://bookstore.redwoods.edu/

STUDENT LEARNING OUTCOMES:
1. Identify major types of building construction.
2. Identify the indicators of potential structural failure as they relate to firefighter safety.
3. Analyze the hazards and tactical considerations associated with the various types of building construction.
4. Explain the different loads and stresses that are placed on a building and their interrelationships.

ATTENDANCE:
Classes start promptly at the scheduled time. Students are expected to be on time, stay for the entire class, and attend every classroom session of this class. A student may be dropped for absence from the first class session.

To pass this course, you will need complete, well-organized lecture notes. Test questions will be taken from each lecture and reading assignment. While the readings will help to flesh out concepts covered in the lectures, they do not provide a substitution for class attendance. If you miss a lecture, it is your responsibility to get notes from a classmate - the instructor does not provide notes for absent students.
Through-out this course, group exercises will be used to facilitate the student’s learning experience. In order to receive full credit for each session attended, students must participate actively in these exercises. Examples of active participation include participating in group dialog, documenting the group’s findings/thoughts/responses to specific activities, or reporting out on assigned group’s findings/thoughts/responses. Each student should strive to participate in each of these roles at least once during this course. The total points possible by attending all classes and participating actively is 96 points or 11% of your final grade.

**COURSE CALENDAR:**

Class Schedule: 01/21/2014 – 05/13/2014, Tuesday 06:05pm-09:15pm

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Semester Begins, Spring Semester 2014</td>
<td>January 18</td>
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<tr>
<td>All-College Holiday (Martin Luther King, Jr.)</td>
<td>January 20</td>
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<tr>
<td>Last day to drop a course and receive a refund</td>
<td>January 31</td>
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<tr>
<td>Last day to drop a course without a ‘W’</td>
<td>February 2</td>
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<tr>
<td>Last day to file P/NP option (where available)</td>
<td>February 13</td>
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<tr>
<td>No Classes (Lincoln’s Birthday)</td>
<td>February 14</td>
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<tr>
<td>All-College Holiday (Presidents)</td>
<td>February 17</td>
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<tr>
<td>No Classes (Spring Break)</td>
<td>March 17-22</td>
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<tr>
<td>Last day for student-initiated drop</td>
<td>March 4</td>
</tr>
<tr>
<td>Final Exams</td>
<td>May 12-16</td>
</tr>
<tr>
<td>Spring Semester Ends</td>
<td>May 16</td>
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</table>

**HOW THE CLASS IS CONDUCTED**

The course requirements are laid out in the Course Syllabus. The Quizzes, Exams, and Extra Credit posting will be conducted on “MyCR” and must be taken/posted by the deadlines as laid out in the course scheduled noted below.

When you access “MyCR”, you should see in the “Quicklinks” ribbon on the top of the page indicating the courses that you are currently enrolled in. Upon clicking on “FT-6-E5530-2014S Bldg Construction for Fire”, you will be taken to the course control panel. Please take some time to explore and become acquainted with the site.

*More information related to “MyCR” is available at: http://www.redwoods.edu/cr-online/

**SCHEDULE OF CLASSES:**

**Week 1 - January 21**
- Lecture: Course Orientation & Introduction
- Reading Assignment: Syllabus

**Week 2 - January 28**
- Lecture: Building Construction and the Fire Service
- Reading Assignment: Chapter 1, Pages 1-41
- Quiz/Exam: Quiz #1 on course syllabus and chapter 1

**Week 3 – February 4**
- Lecture: Structural Fire Resistance and Building Classifications
- Reading Assignment: Chapter 2, Pages 42-67
Week 4 – February 11
- Lecture: The way Buildings are Built: Structural Design Features
- Reading Assignment: Chapter 3, Pages 68-103
- Quiz/Exam: Quiz #2 on chapters 2 & 3

Week 5 – February 18
- Lecture: Building Systems
- Reading Assignment: Chapter 4, Pages 104-146

Week 6 – February 25
- Lecture: Fire Behavior and Building Construction
- Reading Assignment: Chapter 5, Pages 148-179
- Quiz/Exam: Quiz #3 on chapters 4 & 5

Week 7 – March 4
- Lecture: Foundations
- Reading Assignment: Chapter 6, Pages 180-192

Week 8 – March 11
- Lecture: Wood Construction
- Reading Assignment: Chapter 7, Pages 194-228
- Quiz/Exam: Mid Term on Chapters 1-7
  (Test opens on March 11th and will close at midnight on March 14th)

Week 9 – March 17 – 22, Spring Break- No Class

Week 10 – March 25
- Lecture: Masonry and Ordinary Construction
- Reading Assignment: Chapter 8, Pages 230-253

Week 11 – April 1
- Lecture: Steel Construction
- Reading Assignment: Chapter 9, Pages 254-276
- Quiz/Exam: Quiz #3 on chapters 8 & 9

Week 12 – April 8
- Lecture: Concrete Construction
- Reading Assignment: Chapter 10, Pages 278-298

Week 13 – April 15
- Lecture: Roofs
- Reading Assignment: Chapter 11, Pages 300-334
- Quiz/Exam: Quiz #3 on chapters 10 & 11

Week 14 – April 22
- Lecture: Special Structures and Design Features
- Reading Assignment: Chapter 12, Pages 336-371
Week 15 – April 29
■ Lecture: Buildings Under Construction, Remodeling, Expansion and Demolition
■ Reading Assignment: Chapter 13, Pages 372-388
■ Quiz/Exam: Quiz #3 on chapters 12 & 13

Week 16 – May 6
■ Lecture: Non-Fire Building Collapse
■ Reading Assignment: Chapter 14, Pages 390-408
■ Final Research Project Due

Week 17 – May 12-16
■ Quiz/Exam: Final Exam: Chapters 8 – 16
   (Test opens on May 12th and will close at midnight on May 16th)

CLASSROOM POLICIES:
In the event that a student misses a due date for whatever reason, it is the responsibility of that student to contact the instructor and explain the details regarding the situation. The instructor will make a decision regarding the circumstances and may accept the work or allow an extension of the due date. All tests, extra credit research paper, and the mid-term and final exam must be completed by the due date set. Any late work assignments will not be able to receive a grade higher than 80%.

All work pertaining to this course must be the work of the student enrolled in the course. Any dishonesty will not be tolerated and if it is determined that a student was not being honest in the work submitted, the instructor shall award a grade of “F” for the semester grade of the student. As per College policies, a student may drop from the course for various reasons. All CR policies must be followed regarding this process. The student may consult their CR handbook for specifics regarding this process.

Phone calls while in class are discouraged and in no instances will texting be allowed. If a situation presents itself that a student’s believes that they will receive a critical call, they are to make arrangements with the instructor prior to the class beginning.

EVALUATION:
The student’s grade will be calculated on the following:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>% of Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance (16 class meeting worth 5 points each)</td>
<td>11%</td>
<td>96 points</td>
</tr>
<tr>
<td>Quizzes (6 quizzes worth 40 points each)</td>
<td>27%</td>
<td>240 points</td>
</tr>
<tr>
<td>Mid-Term Exam (on chapters 1 thru 7)</td>
<td>31%</td>
<td>280 points</td>
</tr>
<tr>
<td>Final Exam (on chapters 8 thru 16)</td>
<td>31%</td>
<td>280 points</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>896 points</td>
</tr>
<tr>
<td>Extra Credit- Research Paper</td>
<td></td>
<td>50 points</td>
</tr>
</tbody>
</table>
Grading Scale

“A” - 90-100% (806 - 896 pts)  
“C” - 70-79% (626 - 715 pts)  
“B” - 80-89% (716 - 805 pts)  
“F” - Below 70% (0-625 pts)

Quizzes and Exams:
There will be six quizzes, each quiz covering two sessions, a mid-term exam on chapters 1-7, and a Final Exam on chapters 8-14.

- The course includes bi-weekly quizzes covering the previous two sessions and will open on “MyCR” after the second corresponding lecture is given and will close at midnight the Wednesday before the next class.

- The Midterm Exam will consist of a 70 multiple choice questions and it is a “timed exam” covering chapters 1-7. The Midterm Exam will open on “MyCR” March 11th and will close at midnight on March 14th. You will not be able to leave the test once you have started it.

- The Final Exam will consist of a 70 multiple choice questions and it is a “timed exam” covering Units 8-14. The Final Exam and will open on “MyCR” May 12th and will close at midnight on May 16th. You will not be able to leave the test once you have started it.

Quiz and Exam Challenges:
Students have the right to challenge a specific question or answer contained in a quiz or exam provided they submit their challenge and justification in writing to the instructor in a timely manner. No students will receive a lower score upon the instructor's decision to review the specific quiz or exam. (Example, instructor finds additional questions marked incorrectly as correct)

Extra Credit
This extra credit assignment requires that you select a non-residential building in your area and compile data on it and write a research paper based upon the elements covered within this class, its reading and other learning activities. This paper should address:

- The Building Classification including Construction Materials, Roof System and Fire Loads, and Fire Protection Systems (in this building)
- Identify Building Systems that are part of this structure
- Discuss Building Components (that would affect fire behavior).

There shall be a minimum of three (3) pages total contained in this paper.

- The cover sheet and the bibliography or “works sited” page do NOT count towards the three (3) page minimum
- The student should focus on the completeness of the project rather than a word count or number of pages, however, there must be at least three pages

Overall specifications for the paper:

- The paper will be typed, normal spacing, in a size 12 Arial font.
- One inch border will be used on top, bottom and both sides of each page
- White paper only will be used with standard black font color
- Only one side of the paper will be used
A cover sheet will be used containing the following information:
- Title of the Research Paper
- Students’ Name
- Date
- Complete Course Identification Number
- Instructor’s Name
- Graphics are not required for the cover page

A bibliography or “works cited” page will contain all sources utilized to form the paper.
- A minimum of three sources will be used.
- Sources used may be printed material (books or texts), web sources, or a combination of both.
- Standard MLA format will be utilized for this part.
- If the student decides to use illustrations within the paper, the source for each will be listed on an “illustrations used” page.
- The paper will be sent to the instructor by the deadline as an attachment to an email.
- The subject line of this email must read “FT 6 Research Paper.
- Errors in spelling, grammar, and punctuation will count against the student.
- Please proofread your paper carefully before submission.

If you’re unsure how to cite a source for one of your projects, check out the CR library’s web page style guides for MLA
- (http://www.redwoods.edu/eureka/library/pdf/MLACITEFORMAT3.pdf) or APA

*Please note: The extra credit research paper more often than not, can improve the letter grade earned in the class.

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EMERGENCY PROCEDURES:

Please review the campus evacuation sites, including the closet site to this classroom (posted by the exit of each room) and review www.redwoods.edu/safety.asp for information on campus Emergency Procedures.

During an evacuation:

- Be aware of all marked exits from your area and building. Know the routes from your work or instructional area to the nearest exits.
- Once outside, move to the nearest Evacuation Point nearest your building.
- Keeps street and walkways clear for emergency vehicles and personnel.
- Do not leave campus unless it has been deemed safe by Incident Commander or Campus Authorities. (Be aware that CR’s lower parking lot and 101 frontage are within the Tsunami Run-up Zone)

DISCLAIMER:
Your instructor reserves the right to make modifications in content, schedule, and the course syllabus as necessary to promote the best education possible within prevailing conditions affecting this course. Changes will be announced in class.