

## ARCT 133 Residential Methods and Materials 3 Credits

### Course Description

This course is an introduction to the methods of construction and the terminology and use of building materials. This course will develop the student's vocabulary and knowledge of the construction industry relating to construction practices and construction material requirements.

### Course Objectives

The courses main objective is to familiarize the student in the materials and methods typically used in residential construction. An emphasis is placed on the usage of correct terminology as well as the ability to compare materials and methods. This knowledge will be useful when the student is required to choose materials and construction methods used in their drawings.

The following is a short list of broad objectives for each chapter -- these are broken down further in each chapter:

1. Identify the building culture.
2. Identify the professions and trades involved in building a residence.
3. Identify the professions and trades involved in designing a residence.
4. Describe the advantages and limitations of wood as a building material.
5. Describe the advantages and limitations of masonry as a building material.
6. Describe the advantages and limitations of concrete as a building material.
7. Identify the procedures in preparing a site for construction.
8. Identify the materials used for foundations.
9. Identify the procedures used when building foundations.
10. Describe the framing methods used in constructing a wood-frame building.
11. Identify the materials and methods used in finishing the roof.
12. Identify the materials and methods in finishing the exterior of a building.
13. Describe the materials used for plumbing a residence.
14. Describe the types of heating, cooling and ventilation (HVAC) for residential construction.
15. Describe the methods and materials used in the residential electrical system.

### Required Text

***Fundamentals of Residential Construction***, 3rd Edition Edward Allen, Rob Thallon  
ISBN: 0470540834, Hardcover

Textbook can be purchased new or used at:

NDSCS Bookstore website ([www.ndscsbookstore.com](http://www.ndscsbookstore.com)) .  
Amazon.com website.

\* Used books may not have the CD/DVD's that would normally come with a new textbook, however, they will not be needed for this online course.

There is a series of slide shows (DVD's) developed that accompany the new textbook, ***Fundamentals of Residential Construction***, that align with the chapter divisions in the textbook. Feel free to view these slide shows for supplementary information on the topics being discussed in this course.

Contact Coleen at the NDSCS Bookstore for the most current textbook information (1-800-342-4325, ext. 2239 or [coleen.thoe@ndscs.edu](mailto:coleen.thoe@ndscs.edu). You may also visit the NDSCS Bookstore web site at [www.ndscsbookstore.com](http://www.ndscsbookstore.com) and search for book information by class by clicking the "Textbook" tab.

## Grading Scale

Your performance in this class will be based on:

- **Accuracy** of your answers on 'Assignments'. (About 15% of your final grade)
- **Participation** in the 'Discussion' areas for each chapter. (About 15% of your final grade)
- **Organization** and **content** used for completing the 'Report Project'. (About 15% of your final grade)
- **Accuracy** of your answers on the chapter "Exams" and the two 'Proctored Exams'. (About 50% of your final grade)

Letter grades will be awarded as follows:

LETTER GRADE	PERCENT
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

## Student E-mail Accounts

NDSCS students are to use an NDSCS email account exclusively to ensure the lines of communication with your instructor and NDSCS are not broken, which often happens with other email providers. You can access your email account by following instructions at [www.ndscs.edu/lt-Setup](http://www.ndscs.edu/lt-Setup). If you need help accessing your NDSCS email, contact the NDSCS IT Service Desk at 800-342-4325 ext 3333 or [ndscs.servicedesk@ndscs.edu](mailto:ndscs.servicedesk@ndscs.edu).

To make your NDSCS email account your preferred email address, log into your CampusConnection account and check the "preferred" box by campus email.

The NDSCS e-mail system provides students with an entire suite of services such as:

- 10 GB storage for email
- Instant messaging through Skype for Business
- Rich calendaring
- Photo sharing
- Multi-browser support
- SMS alerts to mobile phones

## Student/Instructor Communication

There are several areas inside the course that you can post a message ('Home Office' and 'Fuzzy Points.')

Keep in mind that posted comments in these areas are visible to everyone enrolled in the class. Many times this is appropriate and exactly what you WANT ... but if you have comments or questions you want to be more private, then please email your instructor.

Every attempt will be made to answer your questions within 24 hours, as emails are checked on a regular basis throughout the day.

This is very important ... if you have an important question or comment please do not "just" place the question in a "Comment" in a "Dropbox." Although you can place the question there - in order to get a quicker response please place the question in "Fuzzy Points" (or email to your instructor if it's more personal in nature.)

Also review the [Computer Access Policy](#).