Course Information:

Course Title: Residential Design and Construction
Credits: 4
Class Hours: 2  Lab Hours : 4

Course Description: ACT 1161 is an introductory course in the basics of residential design, light construction and construction drawings. Topics include: design concepts & schematic design; application of concepts to a design problem; developing a floor plan; footings and foundations; structural elements; platform framing construction; stairway design; dimensioning; architectural symbols and developing building sections and elevations.

Each student will prepare schematic drawings, construction drawings and a study model.

Prerequisites: CAD 1200 and Co requisite: CAD 1650

Instructor Information:

Name: Jack Wallace
Email: jack.wallace@nscc.edu
Office Phone: 353-2445
Office Location: W-42
Office Hours: see attachment

Required Textbook(s) & Other Materials:

Textbook(s): Building Construction Illustrated; Francis D. K. Ching, (most recent addition)

ISBN:

Once enrolled, all students should verify that they have the correct textbook and materials information by consulting the D2L/NS Online shell for the course. If you are registered with the Access Center and require an alternate format for the textbook and other course materials, please contact the Access Center at 615-353-3721, 615-353-3741, or accesscenter@nscc.edu.
Course Outcomes:
Upon successful completion of this course, students should be able to:
1. Have a basic knowledge of design concepts and process in residential design.
2. Prepare a schematic design of a small residence by analyzing program data and developing an adjacency matrix, hierarchy chart, served versus service chart and a block diagram.
3. Produce a set of construction drawings that include site plan, floor plans, building section, roof plan and details using REVIT.
4. Determine the structural sizes and placement of the foundation, walls, footings, columns, piers and floors for a small residence.
5. Model making
6. Create 3D color perspective renderings

Course Competencies:
The following are detailed course competencies intended to support the course outcomes:
1. Understanding of the importance of communication and collaboration in the design and building delivery process
2. Understanding the theory of orthographic projection
3. Reading comprehensive skills to understand technical information
4. The use of Mathematics to solve technical problems
5. Understanding relevant software applications

Topics to Be Covered:
- The four ways to place a house on a site
- Schematic Design drawings
- Structural Considerations: footing design, joist and beam selection
- Planning the interior - Room layouts
- Wood framing
- Wall Systems
- Building section and construction Details
- Building Elevations, Doors and Windows and Stair Design
- Construction Documents room schedules door and window schedules
- 3d perspective rendering

Course Assessments:
The Course Outcomes will be measured by demonstrated ability to meet the requirements of each assignment. The standards expected and the level of quality of meeting those standards will be stated with each assignment.
**Grading Policy:**
Points will be awarded in approximately the follow ratios. The point total will be greater than 100 due to updates and revisions of quizzes and the assignments and will be converted to percentages. Points will be stated with each assignment

- **Quizzes**: 30%
- **Drawings**: 70%

The point total will be converted to percentages and applied to the following grading scale:

**Grading Scale:**

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A</td>
<td>100-90</td>
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<tr>
<td>B</td>
<td>89-80</td>
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<tr>
<td>C</td>
<td>79-70</td>
</tr>
<tr>
<td>D</td>
<td>69-60</td>
</tr>
<tr>
<td>F</td>
<td>F 59 – below</td>
</tr>
</tbody>
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**FA** According to NSCC policy, an FA is awarded to students who do not officially withdraw from a course and do not attend after the cut-off date provided in the academic calendar. Students with an F average whose last date of attendance is before 11/2/2018 will receive an FA; students with an F average, whose last day of attendance is on or after 11/2/2018 will receive an F.

**FN** An FN grade is awarded to students who never attended class.

**W** The last day to withdraw from the course with a W is November 2nd.

**Late Work Policy & Make-up Procedures for Missed Assignments and Work:**
Late work will not be accepted unless the student had an excused absence

**Attendance Policy:**
Students are expected to attend all scheduled classes and laboratories. Every student will be permitted two excused absences for the semester. Unexcused absences beyond that will result in the deduction of two (2) percentage points for each class/lab session absence from the student’s final grade. If a student is absent from a class, he/she should give advanced notice via email to the instructor. The student is responsible for all assigned work/tests and/or quizzes in the course for an excused absence. Assigned Work/tests and/or quizzes cannot be made up for an unexcused absence. Tardiness may also affect a student’s final grade.

**Technology Statement**
Nashville State’s classes are considered to be web-enhanced. Faculty have an expectation that students will use a computer and the Internet to complete assignments, engage in online discussions, and access
various course materials through D2L/NS Online course shells. Computers are available for student use at each campus during campus open hours.

D2L/NS Online and myNSCC
It is students’ responsibility to check D2L/NS Online course shells for all enrolled courses and myNSCC, including student email, on a regular basis. These are the official communication channels between the college and students, who are responsible for the information communicated through those channels. D2L/NS Online contains specific course information and myNSCC contains information important for other purposes.

ADA Compliance Statement
Nashville State complies with the Americans with Disabilities Act (ADA). If you require accommodations for any courses in which you are enrolled, contact the Access Center at 615.353.3741 or 615.353.3721, or e-mail accesscenter@nscc.edu. If you are registered with the Access Center and require an alternate format for the textbook and other course materials, please contact the Access Center.

Classroom Misconduct
Nashville State Community College has a zero-tolerance policy for disruptive conduct in the classroom. Students whose behavior disrupts the classroom will be subject to disciplinary measures. Please review the Nashville State Student Code of Conduct policy. Please be aware that children are not allowed in class or to be left unattended on campus.

Disruptive behavior in the classroom may be defined as, but is not limited to, behavior that obstructs or disrupts the learning environment (e.g., offensive language, harassment of students and professors, repeated outbursts from a student which disrupt the flow of instruction or prevents concentration on the subject taught, failure to cooperate in maintaining classroom decorum, etc.), the continued use of any electronic or other noise or light emitting device which disturbs others (e.g., disturbing noises from beepers, cell phones, palm pilots, lap-top computers, games, etc.).

Academic Misconduct
Any form of academic dishonesty, cheating, plagiarizing, or other academic misconduct is prohibited. Students are responsible for understanding and abiding by the Academic Misconduct Policy in the Nashville State Student Code of Conduct. In addition to other possible disciplinary measures that may be applied through regular college procedures as a result of academic dishonesty, the instructor has the authority to assign an “F” or a “zero” for the exercise, paper, or examination, or to assign an “F” for the course. Students may appeal through the appropriate college grade appeal procedures.

Academic Early Alert System
Nashville State Community College uses an Early Alert System to let students know of a faculty member’s concern in one or more of these academic areas: lack of attendance, lack of classroom participation, late or missing assignments, and/or poor performance on assignments/tests. *Please note that Early Alerts do not affect a student’s academic standing. If you receive an Early Alert email, please see your instructor and your academic advisor as soon as possible.
RAVE Emergency Alert System
Emergency events can happen at any time and Nashville State Community College wants to be able notify students if and when they occur. For this reason, all students have been enrolled in the free RAVE alert system. If you have not already done so, please log in at https://www.getrave.com/login/nscc to confirm and update your contact information and notification preferences. It is critical that your information be correct so that you will receive any emergency notifications. Your RAVE Username is your NSCC email address. If you've never received an email from RAVE with your password, or if you need to reset your password, select “Forgot your password?” and a new password will be emailed to you. Should the RAVE system indicate “user not found”, select Register and create your own RAVE account.

Inclement Weather & Campus Closings
Nashville State will use the RAVE alert system to send a text message to students, staff, and faculty about adjusted hours of operation and/or closings at individual campuses. All students should check the Nashville State web site home page at www.nscc.edu for announcements on campus closures, which may vary from campus to campus. Campus closures will also be announced on local television stations. Students should use their own best judgment in determining whether to report to campus during inclement weather when classes are not cancelled.

Even when campuses are closed, students are still responsible for completing all assigned work. When classes are cancelled, faculty will post online assignments and any additional instructions in the D2L/NS Online course shell. Check D2L/NS Online for a message from your instructor regarding your online assignment requirements. Faculty have discretion over adjusting deadlines or due date for assignments, but students are responsible for completing all assigned work by the due date established by the instructor.

Class Cancellation Policy
If the class is cancelled, the instructor will notify all students by posting in the D2L/NS Online course, e-mailing through D2L/NS Online, and/or by posting a sign on the classroom door. In the event of class cancellation, students must access D2L/NS Online to complete classwork and the assignment that will be posted in the course D2L site.