NASHVILLE STATE COMMUNITY COLLEGE  
Business, Applied Arts & Technologies Division  
Architectural Engineering Technology Program  

Course Syllabus  

ACT 1161 RESIDENTIAL DESIGN AND CONSTRUCTION  
4 CREDITS  2 Class Hours, 4 Laboratory Hours  

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 foundation plan and 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 concept diagrams, schematic drawings, construction drawings and a study model. Construction drawings will be produced with AutoCAD.  

Prerequisite(s): CAD 1200  

Course Learning Outcomes  

Upon successful completion of this course the student will 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.  
4. Determine the structural sizes and placement of the foundation, walls, footings, columns, piers, floors, roofs and stairs for a small residence.  
5. Set up the drawings styles, layers and formats in AutoCAD’s model and paper space for producing construction drawings for a small residence.  
6. Analyze and make calculations to determine: ventilation requirements) for a crawl space and an attic.  
7. Determine the number and sizes of the treads and risers for a residential; staircase.  
8. Construct an architectural model.  

Additional Learning Outcomes  

I. Have a basic knowledge of Leadership in Energy and Environmental Design (LEED) and the Green Building concepts.  
II. Have a basic knowledge of LEED category Indoor Environmental Quality credits 8.1 Daylight and Views –Daylight and 8.2 Daylight and Views –Views
Textbook: Building Construction Illustrated; Francis D. K. Ching, (most recent addition)

Performance Assessment
The Course Learning Outcomes one page 1 will be measured by objective examinations of the theory and principles and by instructor evaluations of your ability to draw and plot a set of construction documents and your ability to construct a study model.
The standards expected and the level of quality of meeting those standards is stated with the 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.

- Quizzes: 30%
- Drawings: 60%
- Model: 10%

Grading Scale
The point total will be converted to percentages applied to the grading scale

A 100-90; B 89-81; C 79-70; D 69-60; F 59 – below

Studio/Lab time
Additional open Studio/lab time will be available as scheduled. You may also use the studio be during other scheduled class times if space is available and with the permission of the instructor present.

Drawing Files
CAD drawings should be kept on the server however; students are responsible for back-up files on other devices. Back up after every lab.

Attendance Policy
A student is expected to attend all scheduled classes and laboratories. Each instructor will formulate an attendance policy and provide it on the course syllabus. Absences are counted from the first scheduled meeting of the class, and it is the responsibility of each student to know the attendance policy of each instructor in whose class he/she is enrolled. If a student is absent from a class, he/she should give an advanced explanation to the instructor. Absences in a course may affect a student’s final grade. The student is responsible for all assigned work in the course regardless of excused or unexcused absences. Tardiness may also affect a student’s final grade.

Failure to attend class will result in a final course grade of “FA” or “FN” (see explanation below) depending on the individual instructor’s course policy.
FA= failure, attendance-related (unofficial withdrawal) Last recorded date of attendance required.
FN= failure, never attended class (unofficial withdrawal)
Student Communication Channels
It is the student’s responsibility to check D2L and MyNSCC email on a regular basis. These are the official communication channels between the college and students. Students are responsible for the information communicated through those channels. D2L contains specific course information and MyNSCC contains information important for other purposes.

Early Warning System
Nashville State Community College has implemented an Early Warning System to notify students via e-mail about academic problems such as poor classroom attendance, poor performance on assignments/tests, poor communication skills, late/missing assignments, and/or lack of classroom participation. Please note that Early Warning Alerts do not affect a student’s academic standing.

ADA Compliance Statement
Nashville State complies with the Americans with Disabilities Act. If you wish to request any special accommodations for any courses in which you are enrolled, contact the Student Disabilities Office at 615-353-3721.

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 sanctions. Please consult your Student Handbook for more specific details.

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 prevent 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.).

Please be aware that children are not allowed in class or unattended on campus.

Academic Dishonesty (Honor Code)
Any form of academic dishonesty, cheating, plagiarizing, or other academic misconduct is prohibited. “Plagiarism may result from: (1) failing to cite quotations and borrowed ideas, (2) failing to enclose borrowed language in quotation marks, and (3) failing to put summaries and paraphrases in your own words (A Writer’s Reference 331). Academic dishonesty may be defined as, but is not limited to, intentionally trying to deceive by claiming credit for the work of another person, using information from a web page or source without citing the reference, fraudulently using someone else’s work on an exam, paper, or assignment, recycling your own work from another course, purchasing papers or materials from another source and presenting them as your own, attempting to obtain exams/materials/assignments in
In the event of an inclement weather event, check the Nashville State web site home page at www.nscc.edu for announcements on campus closures. Campus closures will also be announced on local television stations (channels 2, 4, 5, and 17).

When classes are cancelled, an online assignment will be posted in NS Online. Check your NS Online email for a message from your instructor regarding your online assignment requirements. Even though classes may be cancelled, some areas, i.e. Testing Center, may be open. However, you should check before commuting to campus.

The Vice President for Academic Affairs and the Director of Security are responsible for cancellation decisions during an inclement weather event for the Nashville State main campus and the Southeast campus. Cookeville, Waverly, and Dickson Campus Directors will make class cancellation decisions based on conditions in their respective areas. Decisions about class cancellations are based on actual conditions, not forecasts. The perspective used for making decisions is that of the college as an employer, not as a K-12 institution. Students should use their own best judgment in determining whether to report to campus during inclement weather when classes are not cancelled.

**NOTE:** This syllabus is meant simply as a guide and overview of the course. Some items are subject to change or may be revised at the instructor’s discretion. Each instructor will further clarify their criteria for grading, classroom procedures, attendance, exams and dates, etc. on his/her course syllabus.