

Course Outline

Winter 2005

Division:	Business, Engineering & Information Technology	Program/Dept:	Architectural Engineering Drafting
Course Number:	TDR 115	Credits: 5	Variable:
Course Title:	Civil and Site Drafting		
Inst. Intent:	21 Vocational Preparatory	CIP:	15.1304
	Fee: Yes or No	Type	
	X		

Degree/Certificate Requirement:	Yes X	No:	
Name of Degree/Certificate:	Architectural Engineering Drafting Associate of Applied Science Degree		
Distribution Requirement for AA/AS:			
Transfer Status to 4-year institution:	Yes	No:	X
If yes, please describe:			
Course length:	Based on 11 week quarter	Class Size:	24
Course Contact Hours:	55		
Lecture: 55	Lab:	Clinical:	Other: System:
Prerequisite:	No:	X	
If yes, please describe:			
Required Placement Tests:	Yes	No	X
If yes, please describe:			
Comments:			

Course Description:
A basic course in the development of site plans including basic contours, utility features, simple road layout and storm drainage features: simple calculations will be performed.

Course Goals:

NSCC General Education Learning Outcomes and/or Related Instructional Outcomes (for technical courses) Met by Course:

Outcome 2. Use quantitative reasoning processes to understand, analyze, interpret, and solve quantitative problems.

B. Attach meaning to abstract symbols and know when to use which symbol.

C. Formulate patterns based on specific examples.

E. Recognize and apply appropriate mathematical skill or process in arithmetic, algebra and geometry required in various contexts.

Outcome 4. Access, evaluate, and apply information from a variety of sources and a variety of contexts.

C. Retrieve, organize, store, and manipulate information using a variety of technologies.

D. Critically analyze information.

E. Recognize that accurate and complete information is the basis for intelligent decision making.

Course Outcomes/Learning Objectives:

The student is to appreciate basic concepts related to the production of civil engineering documents, develop basic manual drafting skills and apply simple mathematical calculations to civil problems.

Topical Outline And/or Major Divisions

Basic manual drafting techniques

Symbols used for civil and site drafting

Development of a Plot Plan

 Surveying basics, bearings

 Property description, boundaries, site features

 Contours and topographic features

 Datums, spot elevation and plotting

 Sections and volume calculations

Development of a Drainage System

 Plan layout – Contours, catch basins, manholes, pipe

 Profile layout – Mixed scale, invert elevations, slopes

 Storm rates, runoff and calculations

 Detention/Retention Systems

Basic of Roadway Design

 Plan layout

 Bearings, Northings and Eastings Trigonometry

 Centerline stationing, offsets, horizontal curves, calculations

 Match lines

 Profile layout – Mixed scale, slopes

 Projection from plan

 Vertical curves, calculation

 Sections, cuts and fills, quantities

 Features- Superelevations, spiral transitions, lane widenings

Course Requirements (Expectations of Students)

Students will be expected to demonstrate the ability to perform specific competencies listed under "Course Outcomes/Learning Objectives."

Methods of Assessment/Evaluation:

Grades will be based on accumulation of points from assignments, projects and tests.

Required Text(s) and/or Materials:

1. Manual drafting supplies and tools.
2. Selected materials and text as required by instructor.

Supplemental Text(s) and/or Materials:

As required by instructor.

Outline Developed by: James Wall

Date: 9/16/03

Outline Revised by: James Wall

Date: 5/04