



TDR113 - Basic Drafting

Document Type: District Master Course Outline

Proposal Type: Revision

Requester(s): Stephen H Simmons

College: North

Origination Approved: 01/21/2016 - 12:49 PM

BASIC INFORMATION

Requester(s): Stephen H Simmons

College: North Seattle College

Division/Dept: Business, Engineering & IT

Dean: Judy F Learn

COURSE INFORMATION

Proposed Course Number:

Prefix: **TDR** Number: **113**

Request a new Prefix

This will be a common course

Full Title: Basic Drafting

Abbreviated Title: Basic Drafting

Catalog Course Description:

Learn the basic fundamentals of hand drafting. Focus on drafting equipment and its use, basic linework, hand lettering, orthographic projections, isometrics and basic sheet layout. Select discipline options including structures for construction/design or basic mechanical drawings. Open lab.

Course Length: 11 Weeks

Request an Exception

Topical Outline:

- I
 - Intro of class
 - Professional ethics, academic dishonesty, and piracy
 - Drafting standards
 - Drafting Equipment
 - Sketching
 - Lettering
 - Origin of Letters
 - Modern Letter Forms
 - ANSI Standard Letters
 - Uniformity in Lettering
 - Pencil Technique
 - Guide Lines
 - Vertical Capital Letters
 - Spacing of Letters & Words

- Vertical Numerals
- Inclined Capital Letters
- Inclined Numerals
- Vertical Lower Case Letters
- Inclined Lowercase Letters
- Lettering Devices
- Filled-In Letters
- II
 - Mechanical Drawing
 - Drawing Equipment
 - Drawing Boards
 - Paper
 - Fastening paper to the Drawing Board
 - Pencils
 - Choice of pencils
 - Sharpening
 - Alphabet of Lines
 - Vertical Lines
 - Triangles
 - Inclined Lines
 - Neatness
 - Drawing to Scales
 - Types of Scales
 - Use of Architects Scale
 - Use of Engineers Scale
 - Measuring with the Scale
 - Drawing Instruments
 - Compass
 - Sharpening Compass Lead
 - Dividers
 - Irregular Curves
 - Parallel Ruling Straightedge
 - Drafting Machine
 - Sheet Layouts
- III
 - Geometry of Technical Drawing
 - Geometry in Drafting
 - Geometric Shapes
 - Geometric Constructions
- IV
 - Geometry of Technical Drawing
 - Geometry in Drafting
 - Geometric Shapes
 - Geometric Constructions
 - Views of Objects
 - Pictures and Views
 - Revolving the Object
 - The Glass Box
 - Hidden Lines
 - Unfolding the Glass Box
 - Elimination of Views
 - Choice of Views
 - Two-View Drawings
 - Sketching Two Views
 - Three-View Drawings
 - Sketching Three Views
 - Uprightness of Views
 - Side View Beside Top View
 - Center Lines

- Hidden Lines
- Lines that Coincide
- Visualizing the Views
- Progressive Cuts
- Computer Graphics
- V
 - Techniques and Applications
 - Pencil Drawings
 - Pencil Techniques
 - Reproduction Process
 - Blueprinting
 - Mech. Drawing of 2 Views
 - Spacing Three Views
 - Auxiliary Views
 - Revolutions
- VI
 - Manufacturing Process
 - Fillets and Rounds
 - Runouts
 - Conventional Edges
 - Welding
 - Measurements
 - Sectional Views
 - Full Sections
 - Section Lining
 - Visible, Hidden Lines
 - Half Sections
 - Broken-Out Sections
 - Revolved Sections
 - Homework
- VII
 - Conventional Breaks
 - Half Views
 - Revolved Features
 - Ribs & Spokes in Section
 - Offset Sections
 - Removed Sections
 - Sectional Views
- VIII
 - Decimal Dimensions
 - Notes
 - Geometric Breakdown
 - Steps in Applying Dim.
 - Placement of Dimensions
 - Fillets and Rounds
 - Dimensioning Arcs
 - Dimensioning Angles
 - Surface Texture Symbols
 - Direction of Dim. Figures
 - Inch Marks
 - Dimension Figures
 - Arrow Heads
 - Learning to Dimension
 - Complete Desc. of Objects
 - Dimensioning
- IX
 - Pictorial Drawings
 - Developments and Intersections
- X

- Working Drawings
- Structural Drawings
- Electrical Drawings
- Architectural Drawings

COURSE CODING

Funding Source: 1.....State

Institutional Intent: 21.....Vocational Preparatory

This Course is a requirement for the following program(s):

Program Title

ARCH ENGINRG DRFTG (798A)

My Course Proposal is a requirement for a program not on this list

Will this course transfer to a 4-year university? No

Is this course designed for Limited English Proficiency? No

Is this course designed for Academic Disadvantaged? No

Does this course have a Workplace Training component? No

CIP Code: 15.1304 Request Specific CIP Code

EPC Code: 798 Request Specific EPC Code

Credits:

Will this course be offered as Variable Credit? No
No

List Course Contact Hours

Lecture (11 Contact Hours : 1 Credit)	55
Lab (22 Contact Hours : 1 Credit)	0
Clinical Work (33 Contact Hours : 1 Credit)	0
Other (55 Contact Hours : 1 Credit)	0
 Total Contact Hours	 55
Total Credits	5

COLLEGE SUPPLEMENTAL

Proposed Quarter of Implementation: NA Request Provisional Exception
 Fall 2015

Class Capacity: 24

Note: The following questions are being asked in order to fulfill [Seattle Colleges District VI and AFT Seattle, Local 1789 Agreement](#) language:

Have you discussed the class cap for the course with your unit administrator and with other unit faculty that will be teaching the course?

Yes, discussion has been held.

Is the class cap number that you have indicated mutually agreed upon by unit faculty and unit administrators?

Yes, agreement has been reached.

Modes of Delivery: (Check all that apply)

- Fully On Campus Fully Online Hybrid Correspondence Credit by Exam
 Seminar Visual Media Other Explanation:

Class Schedule Description:

Designed to acquaint students with fundamentals of hand sketching/drafting using architectural/engineering plans and details as instruction materials. Focus will be placed on the use of basic equipment, linework, hand lettering, orthographic projections, isometrics and basic sheet layout. After introduction of basics, student may select discipline options including design of basic mechanical, architectural and engineering drawings. Open lab.

Course Prerequisite(s):

None

Course Corequisite(s):

None

AA Degree Outcomes: (If Applicable)

Communication (Reading, Oral or Signed, Written, Other Forms of Expression)

Explain meaning of written work, presentations, arts, and media in different contexts and present oral, signed, written, or other forms of expression to increase knowledge, foster understanding, or promote change in an audience.

Essential Learning Outcomes:

Knowledge

Facts, theories, perspectives, and methodologies within and across disciplines

Students will demonstrate the fundamentals of hand sketching/drafting by using architectural/engineering plans as learning materials.

Intellectual & Practical Skills, including

Technological proficiency

The student will be able to demonstrate a comprehension of drawing projections.

Discipline/Program Outcomes:

1. Student will successfully demonstrate knowledge of drafting conventions including symbols, linetypes, lineweights, and dimension styles as applicable to the design discipline.
 2. Student will demonstrate the knowledge to read architectural prints, solve common architectural problems, and produce 2-D and 3-D drawings by hand.
 3. The student will show the ability to Illustrate the construction process from the transformation of an idea or need into a completed project.
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Course Outcomes:

1. The student will successfully demonstrate the understanding of professional ethics, academic dishonesty and piracy.
 2. The student will successfully demonstrate knowledge of mechanical drafting and the proper use of the drafting equipment.
 3. The student will successfully demonstrate knowledge of technical drawing.
 4. The student will successfully demonstrate how to interpret different views of objects.
 5. The student will successfully demonstrate knowledge of drawing orthographic projections.
 6. The student will successfully demonstrate how to create isometric drawings.
 7. The student will successfully demonstrate proper techniques and applications of hand drafting.
 8. The student will successfully demonstrate knowledge of the Manufacturing Process.
 9. The student will successfully demonstrate proper techniques of dimensioning.
 10. The student will successfully demonstrate knowledge of how to read working drawings
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Assessment:

Assessment may include but is not limited to homework, in-class projects and drawing quizzes, class participation, discussion board participation, final exam, etc. Grades will be assigned in accordance with standards published in the course syllabus.

Explain why this course is being revised:

Course is being revised from a fully on-campus class to the hybrid format. Since technologies have advanced in Architecture, Engineering and Drafting this course needs to address those advancements with newer, relevant information delivery methods.

This is to certify that the above criteria have all been met and all statements are accurate to the best of my knowledge.

Faculty involved in originating this program:

Stephen H Simmons
Print Name

Stephen H Simmons
Signature

1/19/2016
Date

Dean:

Terry J Cox
Print Name

Terry J Cox
Signature

7/2/2015
Date

Results of NSCC Curriculum and Academic Standards Committee Findings

Participating Faculty Response and Remarks

- Recommended for approval
- Not recommended for approval

Chairman, Curriculum and Academic Standards Committee:

Brian Palmer
Print Name

Brian Palmer
Signature

1/20/2016
Date

Vice President for Instruction:

Kristen A Jones
Print Name

Kristen A Jones
Signature

1/21/2016
Date