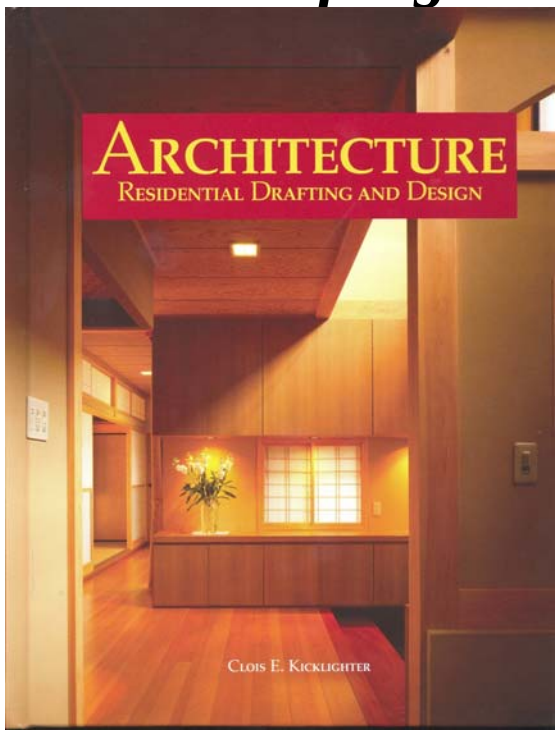
Goodheart-Willcox Publisher

Florida Department of Education
State Standards Correlation

Subject Area: Technology Education, 6-12
Course: 8600820 Drafting/Illustrative Design II
Architecture: Residential Drafting and Design © 2008



www.g-w.com

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	16	DEMONSTRATE AN UNDERSTANDING OF THE CHARACTERISTICS AND SCOPE OF TECHNOLOGY--The student will be able to:		
	1.01	Illustrate the nature and development of technological knowledge and processes. STL.1.J, SC.H.3.4	24-32, 91-97, 125-126, 465-479, 565-576, 579-595	I
	1.02	Explain the rapid increase in the rate of technological development and diffusion. STL.1.K, LA.C.3.4	579-595, 350-358, 715-736	I
	1.03	Conduct specific goal-directed research related to inventions and innovations. STL.1.L, LA.A.2.4, LA.B.2.4	91-107, 123-126, 579-595	I
	2	DEMONSTRATE AN UNDERSTANDING OF THE CORE CONCEPTS OF TECHNOLOGY--The student will be able to:		
	2.01	Apply systems thinking logic and creativity with appropriate compromises in complex real-life problems. STL.2.W	36, 52-55, 57, 396-408, 661, 663	I
	2.02	Discuss technological systems, which are the building blocks of technology and are embedded within larger technological, social, and environmental systems. STL.2.X, LA.D.2.4	81-83, 549-562, 565-576	I
	2.03	Select resources involving trade-offs between competing values, such as availability, cost, desirability, and waste. STL.2.Z	17-35, 597-603, 685-392, 584-591	I
	2.04	Identify the criteria and constraints of a product or system and determine how they affect the final design and development. STL.2.AA, MA.A.5.4, MA.B.1.4, MA.B.3.4, MA.B.4.4, MA.E.3.4, SC.H.1.4	91-107, 549-554, 661-670, 695-712	I
	2.05	Utilize optimization as an ongoing process or methodology of designing or making a product dependent on criteria and constraints. STL.2.BB	265-270, 543-544, 560-562, 607-634	I

*Indepth/Mentioned

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	2.06	Identify new technologies that create new processes. STL.2.CC	109-126, 465-479, 589-595, 719-722	I
	2.07	Implement a quality control process to ensure that a product, service, or system meets established criteria. STL.2.DD	396-407, 436-445, 487-488	I
	2.08	Organize a management system as the process of planning, organizing, and controlling work. STL.2.EE, LA.B.2.4	27-64, 99-100, 472-479	I
	3	DEMONSTRATE AN UNDERSTANDING OF THE RELATIONSHIPS AMONG TECHNOLOGIES AND THE CONNECTIONS BETWEEN TECHNOLOGY AND OTHER FIELDS OF STUDY--The student will be able to:		
	3.01	Discuss technology transfer occurring when a new user applies an existing innovation developed for one purpose in a different function. STL.3.G, SC.H.3.4	565-571, 664-670	I
	3.02	Explain technological innovation resulting when ideas, knowledge, or skills are shared within a technology, among technologies, or across other fields. STL.3.H, SC.H.3.4	83-88, 103-107, 449-462, 465-472, 597-603	I
	3.03	Discuss technological progresses that promote the advancement of science and mathematics. STL.3.J, LA.C.3.4, SC.H.3.4	53-58, 369-376, 549-562, 717-726	I
	4	DEMONSTRATE AN UNDERSTANDING OF THE CULTURAL, SOCIAL, ECONOMIC, AND POLITICAL EFFECTS OF TECHNOLOGY--The student will be able to:		
	4.01	Discuss changes caused by the use of technology ranging from gradual to rapid and from subtle to obvious. STL.4.H	37-48, 91-97, 498-499 (M)	I/M

*Indepth/Mentioned

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	4.02	Compare the use of technology involving weighing the trade-offs between the positive and negative effects. STL.4.I	51-57, 559-560 (M), 579-595	I/M
	4.03	Debate the cultural, social, economic, and political changes caused by the transfer of technology from one society to another. STL.4.K, LA.C.3.4, SC.H.3.4	17-32, 565-576, 707-712	I
	5	DEMONSTRATE AN UNDERSTANDING OF THE INFLUENCE OF TECHNOLOGY ON HISTORY--The student will be able to:		
	5.01	Discuss how technological development has been evolutionary, the result of a series of refinements to a basic invention. STL.7.G	17-29, 91-99, 312-317	I
	5.02	Discuss how the evolution of civilization has been directly affected by, and has in turn affected, the development and use of tools and materials. STL.7.H, SC.H.3.4, SS.A.2.4	29-35, 579-595, 707-712	I
	5.03	Research the history of technology as a powerful force in reshaping the social, cultural, political, and economic landscape. STL.7.I, LA.A.1.4, LA.A.2.4, SS.A.2.4	17-32, 565-576, 707-712	I
	5.04	Discuss that early in the history of technology, the development of many tools and machines was based not on scientific knowledge but on technological know-how. STL.7.J	579	M
	5.05	Define the Iron Age by the use of iron and steel as the primary materials for tools. STL.7.K		
	5.06	Define the Middle Ages by the development of many technological devices that produced long-lasting effects on technology and society. STL.7.L		

*Indepth/Mentioned

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	5.07	Define the Renaissance, a time of rebirth of the arts and humanities, as an important development in the history of technology. STL.7.M		
	5.08	Define the Industrial Revolution as the development of continuous manufacturing, sophisticated transportation and communication systems, advanced construction practices, and improved education and leisure time. STL.7.N, SS.A.5.4		
	5.09	Define the Information Age and its placement of emphasis on the processing and exchange of information. STL.7.O		
	6	DEMONSTRATE AN UNDERSTANDING OF THE ATTRIBUTES OF DESIGN--The student will be able to:		
	6.01	Describe the design process; including defining a problem, brainstorming, researching and generating ideas, identifying criteria and specifying constraints, exploring possibilities, selecting an approach, developing a design proposal, making a model or prototype, testing and evaluating the design using specifications, refining the design, creating or making it, and communicating processes and results. STL.8.H	77-81, 223-230, 396-407	I
	6.02	Translate design problems that are seldom presented in a clearly defined form. STL.8.I, LA.D.1.4, LA.D.2.4	616-631, 696-706	I
	6.03	Check and critique a design continually, and improve and revise the idea of the design as needed. STL.8.J, SC.H.1.4	396-407, 436-445, 459-462	I

*Indepth/Mentioned

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	6.04	Analyze competing requirements of a design, such as criteria, constraints, and efficiency. STL.8.K, MA.A.3.4, MA.B.1.4, MA.B.3.4, MA.B.4.4, MA.D.1.4, MA.D.2.4, MA.E.1.4	248-252, 565-571, 584-591, 696-697	I
	7	DEMONSTRATE AN UNDERSTANDING OF ENGINEERING DESIGN--The student will be able to:		
	7.01	Investigate design principles used to evaluate existing designs, to collect data, and to guide the design process. STL.9.I	129-145, 189-211	I
	7.02	Examine the influence of personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly on the engineering design process. STL.9.J, LA.D.2.4, SC.H.1.4	51-58, 696-706	I
	7.03	Construct a prototype or working model to test a design concept by making actual observations and necessary adjustments. STL.9.K, MA.B.1.4, SC.H.1.4, SC.H.3.4	661-670	I
	7.04	Evaluate factors taken into account in the process of engineering design. STL.9.L, MA.A.2.4, MA.A.4.4, MA.B.1.4, MA.B.3.4, MA.B.4.4, MA.D.1.4, MA.E.1.4, SC.H.3.4	47 (M), 92-97, 369-370	I/M
	8	DEMONSTRATE AN UNDERSTANDING OF THE ROLE OF TROUBLESHOOTING, RESEARCH AND DEVELOPMENT, INVENTION AND INNOVATION, AND EXPERIMENTATION IN PROBLEM SOLVING--The student will be able to:		
	8.01	Employ research and development as a specific problem solving approach that is used intensively in business and industry to prepare devices and systems for the marketplace. STL.10.I	99-107, 478 (M), 736 (M)	I/M

*Indepth/Mentioned

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	8.02	Conduct research needed to solve technological problems. STL.10.J, LA.A.1.4, LA.A.2.4	51-58, 478 (M), 736 (M)	I/M
	8.03	Differentiate between technological and non-technological problems, and identify which problems can be solved using technology. STL.10.K, SC.H.1.4	675-676, 685-687, 692	I
	8.04	Utilize a multidisciplinary approach to solving technological problems. STL.10.L, SC.H.1.4, MA.A.1.4, MA.A.3.4, MA.B.1.4, MA.B.3.4, MA.B.4.4, MA.E.1.4, MA.E.3.4, SC.H.1.4, SC.H.3.4	121-126, 739-743	I
	9	DEMONSTRATE ABILITIES TO APPLY THE DESIGN PROCESS--The student will be able to:		
	9.01	Identify a design problem to solve and decide whether or not to address it. STL.11.M, SC.H.1.4	283-290, 531-536, 716-717	I
	9.02	Identify criteria and constraints and determine how these will affect the design process. STL.11.N, MA.A.3.4, MA.B.1.4, MA.B.3.4, MA.B.4.4, MA.D.1.4, MA.D.2.4, MA.E.1.4, SC.H.1.4, SC.H.3.4	499-502, 539-546, 696-706, 377-380, 364, 366, 478	I
	9.03	Refine a design by using prototypes and modeling to ensure quality, efficiency, and productivity of the final product. STL.11.O, MA.B.1.4, MA.B.4.4	92-97, 362-363, 396-407, 672 (ACT#5), 368 (ACT#5), 387 (ACT#2)	I
	9.04	Evaluate the design solution using conceptual, physical, and mathematical models at various intervals of the design process in order to check for proper design and to note areas where improvements are needed. STL.11.P, MA.B.4.4, MA.D.2.4, MA.E.1.4, MA.E.2.4, MA.E.3.4, SC.H.1.4, SC.H.3.4	362-363, 413-417, 488	I
	9.05	Develop and produce a product or system using a design process. STL.11.Q	442-446, 509-513, 605 (ACT#4), 387 (ACT#2)	I

*Indepth/Mentioned

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	9.06	Evaluate final solutions and communicate observation, processes, and results of the entire design process, using verbal, graphic, quantitative, virtual, and written means, in addition to three-dimensional models. STL.11.R, LA.B.2.4, LA.C.3.4, MA.B.4.4, MA.D.2.4, MA.E.1.4, MA.E.2.4, MA.E.3.4, SC.H.1.4, SC.H.3.4	123-126, 478 (M), 661-670	I/M
	10	DEMONSTRATE THE ABILITIES TO USE AND MAINTAIN TECHNOLOGICAL PRODUCTS AND SYSTEMS--The student will be able to:		
	10.01	Document processes and procedures and communicate them to different audiences using appropriate oral and written techniques. STL.12.L, LA.B.2.4, LA.B.1.4, LA.C.3.4	58-64, 675-676, 685-687, 692	I
	10.02	Diagnose a system that is malfunctioning and use tools, materials, machines, and knowledge to repair it. STL.12.M	699-703, 722-726	I
	10.03	Troubleshoot, analyze, and maintain systems to ensure safe and proper function and precision. STL.12.N	459-462, 715-717, 726-727	I
	10.04	Operate systems so that they function in the way they were designed. STL.12.O	109-126, 554-559, 650-655	I
	10.05	Use computers and calculators to access, retrieve, organize, process, maintain, interpret, and evaluate data and information in order to communicate. STL.12.P, LA.A.2.4, MA.E.1.4	91-126, 531-536, 693 (ACT#1), 481 (ACT#1)	I
	11	DEMONSTRATE THE ABILITIES TO ASSESS THE IMPACT OF PRODUCTS AND SYSTEMS--The student will be able to:		
	11.01	Collect information and evaluate its quality. STL.13.J, LA.A.2.4, SC.H.1.4	283-290, 580-581, 685-687, 692	I

*Indepth/Mentioned

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	11.02	Synthesize data, analyze trends, and draw conclusions regarding the effect of technology on the individual, society, and environment. STL.13.K, LA.A.2.4, SC.G.1.4, SC.G.2.4, SC.H.1.4	51-58, 710-712, 726-736	I
	11.03	Use assessment techniques, such as trend analysis and experimentation to make decisions about the future development of technology. STL.13.L, LA.A.2.4, MA.E.1.4, MA.E.2.4, MA.E.3.4	478 (M), 695-706	I/M
	11.04	Design forecasting techniques to evaluate the results of altering natural systems. STL.13.M, MA.E.3.4, SC.G.2.4	560-562. 565-571	I
	12	DEMONSTRATE AN UNDERSTANDING OF AND BE ABLE TO SELECT AND USE INFORMATION AND COMMUNICATION TECHNOLOGIES—The student will be able to:		
	12.01	Discuss information and communications technologies including inputs, processes, and outputs associated with sending and receiving information. STL.17.L	465-481, 520-522, 481 (ACT#2)	1
	12.02	Classify information and communications systems that allow information to be transferred human to human, human to machine, machine to human, and machine to machine. STL.17.M	465-481, 520-522	I
	12.03	Use information and communication systems to inform, persuade, entertain, control, manage, and educate. STL.17.N, LA.B.1.4, LA.B.2.4, LA.C.1.4, LA.C.2.4, LA.C.3.4	465-481, 520-522	I
	12.04	Identify many ways to communicate information, such as graphic and electronics means. STL.17.P, LA.C.3.4	95-99, 637-658, 661-670, 675-676	I

*Indepth/Mentioned

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	12.05	Communicate technological knowledge and processes using symbols, measurement, conventions, icons, graphic images, and languages that incorporate a variety of visual, auditory, and tactile stimuli. STL.17.Q, LA.C.3.4, MA.A.1.4, SC.H.3.4	58-64, 67108, 393-395	I
	13	DEMONSTRATE AN UNDERSTANDING OF AND BE ABLE TO SELECT AND USE MANUFACTURING TECHNOLOGIES--The student will be able to:		
	13.01	Service products to keep them in good operating condition. STL.19.L	497 (M), 580-584, 697-699	I/M
	13.02	Discuss the interchangeability of parts to increase the effectiveness of manufacturing processes. STL.19.P, MA.B.4.4	584-591, 600-603	I
	14	DEMONSTRATE AN UNDERSTANDING OF AND BE ABLE TO SELECT AND USE CONSTRUCTION TECHNOLOGIES -The student will be able to:		
	14.01	Identify a variety of processes and procedures used in constructing structures. STL.20.K	575, 579,-596	I
	14.02	Identify requirements involved in the design of structures. STL.20.L	419-422, 454 (M), 483 (M), 499-502, 717	I/M
	14.03	Recommend maintenance, alterations, or renovations to improve a structure or alter its intended use. STL.20.M	695-712, 734-735	I
	23	DEMONSTRATE TECHNICAL KNOWLEDGE AND SKILLS FOR MAKING ARCHITECTURAL DRAWINGS TO INDUSTRY STANDARDS--The student will be able to:		
	23.01	Produce a dimensioned floor plan showing walls, windows, doors, cabinets, stairs, appliances, fixtures, and other details. LA.A.2.4, MA.B.2.4, MA.B.4.4	389-407	I

*Indepth/Mentioned

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	23.02	Produce a dimensioned foundation plan with details. MA.B.2.4, MA.B.4.4, SC.B.1.4	359-270	I
	23.03	Produce an architectural electrical plan. MA.B.2.4, MA.B.4.4, SC.B.1.4	483-489	I
	23.04	Produce an architectural plumbing plan. MA.B.2.4, MA.B.4.4	505-513	I
	23.05	Produce an architectural climate control plan (HVAC). MA.B.2.4, MA.B.4.4, SC.B.1.4	539-546	I
	23.06	Produce a dimensioned roof plan with details. MA.B.2.4, MA.B.4.4	409-428, 436	I
	23.07	Produce a detailed information sheet including wall section and schedules. MA.C.2.4, SC.B.1.4	436-438	I
	23.08	Produce a dimensioned plot plan. MA.B.2.4, MA.B.4.4, SC.D.1.4, SC.D.2.4, SC.G.2.4	217-230	I
	23.09	Produce dimensioned elevation drawings showing grade lines, floors, ceilings, windows, doors, and other details. MA.B.2.4, MA.B.4.4, SC.B.1.4	431-447	I
	24	DEMONSTRATE TECHNICAL KNOWLEDGE AND SKILLS FOR MAKING A REVERSE ENGINEERED DRAWING (AS BUILT) FROM A SOLID OBJECT--The student will be able to:		
	24.01	Identify and apply advanced measuring tools and techniques. MA.B.4.4, SC.E.2.4	73 (M), 94-95	M/I
	24.02	Apply precision dimensioning standards. MA.B.2.4, SC.A.1.4	100 (M), 393-395	M/I
	24.03	Produce a detailed multi view orthographic drawing. MA.C.2.4, MA.C.3.4	67-68, 123-126	I
	24.04	Produce an enhanced pictorial drawing. MA.B.1.4, MA.B.2.4, MA.C.2.4, MA.D.1.4	637-650	I

*Indepth/Mentioned

CORRELATION
FLORIDA DEPARTMENT OF EDUCATION
COURSE DESCRIPTION

SUBJECT: Technology
COURSE NAME: Drafting/Illustrative Design Technology II **COURSE CODE NUMBER:** 8600820
SUBMISSION TITLE: Architecture: Residential Drafting and Design
PUBLISHER: Goodheart-Willcox Publisher
GRADE(S):

OUTCOME NUMBER	BENCHMARK NUMBER	INTENDED OUTCOME/BENCHMARK DESCRIPTION	PAGE(S) OR LOCATION(S) WHERE TAUGHT IN MAJOR TOOL	I/M*
	24.05	Produce an auxiliary view drawing. MA.C.2.4		
	24.06	Produce a section view drawing. MA.C.2.4, MA.B.4.4	436-438	I
	25	DEMONSTRATE TECHNICAL KNOWLEDGE AND SKILLS FOR MAKING TECHNICAL ILLUSTRATIONS--The student will be able to:		
	25.01	Produce a colored or shaded pictorial rendering for presentation. MA.B.1.4, MA.B.2.4, MA.C.2.4, MA.D.1.4, LA.C.3.4	637-658	I
	25.02	Produce a labeled graph or chart for display. MA.E.1.4, LA.C.3.4	95 (M), 103-104	M/I

*Indepth/Mentioned