

DOWNRIVER CAREER TECHNICAL CONSORTIUM

Student Competencies

The tasks listed below include all of the possible areas a student could be involved with while in the career technical program. The areas identified with a (c) represent tasks in which the student has successfully demonstrated competency. The areas identified with (nc) are tasks which the student has been exposed to, but at this point, is not being certified. The areas identified with an (o) are tasks which have been omitted from this student's program.

Program Title	ARCHITECTURAL DRAFTING (CAD)	(c) Competency Certified (nc) Student has been exposed to (o) Omitted from student's program
1) Presentation floor plan	_____	15) Specs and complete materials list sketches _____
2) Elevations	_____	16) Explore basic shapes written presentations oral presentations _____
3) Construction floor plan	_____	
4) Footing plan and foundation details	_____	17) Various construction details _____
5) Floor framing plan and sill detail	_____	1 point perspective _____
6) Wall framing details	_____	18) Presentation drawings 2 point perspective 3 point perspective _____
7) Roof framing, truss and cornice detail	_____	19) Trees, vehicles and people in elevation, plan and perspective _____
8) Stair section	_____	
9) Fireplace details	_____	20) Topographical mapping and problems _____
10) Door and window schedule	_____	21) Topographical enlargement and modifications _____
11) Electric service panel and floor plan	_____	22) Topographical modeling _____
12) Waste and vent schematic and plan	_____	23) House modeling _____
13) Hot and cold water schematic and plan	_____	24) CAD application to drawings using micro CADAM and software _____
14) Heating and cooling plan, details and calculations	_____	25) Plotting procedures _____
		26) Reproduction using blueprints and white prints _____

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(c) Competency Certified
 (nc) Student has been exposed to
 (o) Omitted from student's program

Program Title: **ADVANCE AUTO CAD I, II, III, & IV OR CTE CLASS**

- | | | | |
|---|-------|---|-------|
| 1) Creating and edit group properties | _____ | Light & Shadow | _____ |
| 2) Creating Blocks and libraries | _____ | Creating Animation | _____ |
| 3) Creating and editing Attributes | _____ | Use of Photos in Viz | _____ |
| 4) Creating and demensioning Isometric drawings | _____ | Plotting | _____ |
| 5) Creating and managing User Coordinate system | _____ | 17) Proficient in Inventor | _____ |
| 6) Create and edit Wire Frame drawings | _____ | Sketching | _____ |
| 7) Apply Shading and Rendered surfaces | _____ | Constraints | _____ |
| 8) Create and edit solid objects (models) | _____ | Work Planes | _____ |
| 9) Create production quality drawings | _____ | Sweeps & Lofts | _____ |
| 10) Proficient in use of Machinery's Handbook | _____ | Assemblies | _____ |
| 11) Create custom Menus and Toolbars | _____ | Surfaces | _____ |
| 12) Create and edit Slides and Scripts | _____ | Presentation | _____ |
| 13) Can apply basic AutoLISP commands | _____ | Animation | _____ |
| 14) Create and edit External Reference drawings | _____ | 18) Proficient in Architectural Desktop | _____ |
| 15) Mentor students with lesser knowledge | _____ | Building features | _____ |
| 16) Proficient in VIZ | _____ | Masses | _____ |
| Create 3-D objects | _____ | Rendering | _____ |
| Rendering | _____ | Plotting | _____ |

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Program Title ENGINEERING DRAFTING & DESIGN / AUTO CAD - Flat Rock

(c) Competency Certified
(nc) Student has been exposed to
(o) Omitted from student's program

Manual Drafting

1) Proper drafting terminology	_____	_____
2) Proper use of manual drafting tools	_____	_____
3) Proper Lettering skills	_____	_____
4) Proper application of line types	_____	_____
5) Technical, isometric and oblique sketching	_____	_____
6) Drawing to scale	_____	_____
7) Geometric construction	_____	_____
8) Orthographic projection	_____	_____
9) Sectional views	_____	_____
10) Proper application of dimensioning skills	_____	_____
11) Threads and fasteners	_____	_____
12) Auxiliary views	_____	_____
13) Application of drawing limits and tolerances	_____	_____
14) Geometric dimensioning and tolerancing	_____	_____
15) Detail and assembly drawings	_____	_____
16) Bill of materials	_____	_____

AutoCAD

1) Create and save new drawings	_____
2) Proper use of toolbars and pull-down menus	_____
3) Use of Object Snaps	_____
4) Creating and modifying text	_____
5) Use of Zoom, Pan and View features	_____
6) Use of drawing and editing features	_____
- line types	_____
- Chamfers and Fillets	_____
- Array	_____
- Rotate	_____
- Scale	_____
- Hatch	_____
7) Printing and plotting drawings	_____
8) Creating and editing dimensions	_____
9) Create detail and assembly drawings	_____
- bill of material	_____
- title block	_____

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Program Title	<u>AUTO BODY TECHNOLOGY</u>	(c) Competency Certified
		(nc) Student has been exposed to
		(o) Omitted from student's program
1) Shop safety	_____	14) Primer spraying _____
2) Auto Body parts nomenclature	_____	15) Taping, masking _____
3) Braze welding	_____	16) Automotive trim installation _____
4) Lead usage	_____	17) Undercoat systems _____
5) Flame cutting	_____	18) Metal treatments _____
6) Metal finishing	_____	19) HVLP spray gun usage _____
7) Metal forming	_____	20) Estimating _____
8) Metal shrinking	_____	21) Shop management _____
9) Panel replacing and alignment	_____	22) Employability skills _____
10) Plastic filler usage	_____	23) Urethane paint systems _____
11) Spray gun fundamentals	_____	24) Basecoat clear coat paint systems _____
12) Feather edging	_____	25) Refinishing safety _____
13) Sanding	_____	

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Program Title	BUSINESS SERVICES TECHNOLOGY	(c) Competency Certified (nc) Student has been exposed to (o) Omitted from student's program
Prepare a day's schedule for employer	_____	_____
Prepare employer's business expense statements	_____	_____
Prepare for meetings	_____	_____
Inspect, proofread, and edit	_____	_____
File materials alphabetically	_____	_____
File materials numerically	_____	_____
Retrieve materials	_____	_____
Cross reference documents	_____	_____
Keep payroll records and write payroll checks	_____	_____
Reconcile bank statements	_____	_____
Compute invoices	_____	_____
Compute purchase orders	_____	_____
Greet callers	_____	_____
Handle incoming telephone calls	_____	_____
Plan and place telephone calls	_____	_____
Develop and maintain directories	_____	_____
Speak effectively	_____	_____
Listen effectively	_____	_____
Compose correspondence	_____	_____
Transcribe dictated data	_____	_____
Prioritize office tasks	_____	_____
Key information on business forms	_____	_____
Demonstrate knowledge of acceptable mail procedures	_____	_____
Operate calculators	_____	_____
Operate electronic typewriters	_____	_____
Operate transcribers	_____	_____
Locate and use current reference materials	_____	_____
Locate job opportunities	_____	_____
Apply for a job	_____	_____
Prepare for an interview	_____	_____
Complete portfolio	_____	_____
		Demonstrate organizational skills _____
		Demonstrate knowledge of acceptable work habits _____
		Demonstrate knowledge of interpersonal relations _____
		Demonstrate teamwork concepts _____
		Specialized Skills: _____
		Keyboarding speed _____ Shorthand speed _____
		Understand word processing concepts _____
		Word processing program(s) _____
		Understand database management concepts _____
		Database program(s) _____
		Understand spreadsheet concepts _____
		Spreadsheet program(s) _____
		Understand computerized accounting concepts _____
		Computerized accounting program(s) _____

**DOWNRIVER CAREER TECHNICAL CONSORTIUM TRENTON HIGH SCHOOL
CABINETMAKING/FURNITUREMAKING STUDENT PERFORMANCE EVALUATION**

Student Name: _____

The performance evaluation is a required component of the Skill Certification process. Each student must be evaluated on the required performance standards. Performance standards may be completed and evaluated any time during the course.

- Students should be aware of their progress throughout the course, so they can concentrate on the objectives that need improvement.
- Students should be encouraged to repeat the objectives until they have performed at a minimum of a number 1 or 2 on the rating scale (moderately to highly competent level).
 Successfully demonstrated without supervision
 1= highly competent
 2= moderately competent
 3= limited competence
 4= not competent
- When a standard has been achieved at a minimum of 80% (moderately to highly competent level).
 -"Y" (Y=YES) is recorded on the last line of that standard, on the performance evaluation sheet.
 If a student does not achieve a 1 or a 2 (moderately to highly competent level), then "N" (N=NO) is recorded on the last line of that standard.
- All performance standards MUST be completed and evaluated prior to the written test.
 Students who achieve a 1 or a 2 (moderately to highly competent) on ALL performance standards and 80% on the written test will be issued a Downriver Technical Skills Certificate.

Students will be able to understand and demonstrate the safe use of portable power tools. 1 2 3 4

- () Demonstrate proper use of routers.
- () Demonstrate proper use of reciprocating or circular saws.
- () Demonstrate proper use of biscuit jointer
- () Demonstrate proper use of power plane.
- () Demonstrate proper use of power drills and drivers.
- () Demonstrate proper use of pneumatic finishing tools.

Students will be able to understand and demonstrate the safe use of hand tools. 1 2 3 4

- () Demonstrate proper use of striking tools.
- () Demonstrate proper use of measuring and layout tools
- () Demonstrate proper use of sawing tools
- () Demonstrate proper use of edge-cutting tools.
- () Demonstrate proper use of fastening tools.

Students will be able to understand the designing, planning, and estimation process. 1 2 3 4

- () Draw the necessary views of a selected project to scale.
- () Create a material list for a selected project and determine the project cost.
- () Create a procedure list for construction of a cabinet
- () Extract pertinent cabinet information and specifications from blueprints and specifications.

Students will be able to understand cabinet components/hardware 1 2 3 4

- () Layout and construct a face frame cabinet box or frameless European cabinet
- () Layout, construct, and install a raised panel door
- () Layout, construct, and install a dovetail drawer.
- () Properly install common cabinet/furniture hardware – hinges, drawer guides, pulls and knobs.
- () Be able to install adjustable shelving

Students will be able to understand and demonstrate finishing techniques. 1 2 3 4

- () Properly prepare surface for finishing.
- () Properly apply stain and paste filler
- () Properly apply Magnamax Lacquer using spray gun.

Students will be able to understand and demonstrate the safe use of power machines. 1 2 3 4

- () Demonstrate the proper use of cutting machines.
- () SCMI Hydro 3200 table saw – change blade, setup dado blade, cut a cove, cut a bevel, rip, crosscut, and miter.
- () Band saw – Cut arcs and circles, compound bandsaw
- () Scroll saw – cut arcs, circles, change blade, and set tension
- () SCMI 36" Belt sander – setup, adjust and change belts.
- () Striebig Optisaw Panel saw – cut horizontal and vertical
- () Ritter Door clamp – setup, demonstrate proper use in clamping.
- () Radial Arm saw –
- () Blum Minipress – setup, adjust, drill and set hinges.
- () Demonstrate the proper use of the jointer in facing and edging
- () Demonstrate the proper use of the surfacer in surfacing.
- () Demonstrate the proper use of shaping machines in straight cut and collar use.
- () Demonstrate the proper use of the following machines.
- () Castle pocket hole mortiser – setup and drill face frame pocket holes
- () Max Oscillating spindle sander – change spindles and abrasive paper
- () Disc sander – change abrasive paper.

Students will be able to understand and demonstrate safe practices. 1 2 3 4

- () Demonstrate the ability to work safe in a cabinet shop following general safety rules
- () Demonstrate safe use of woodworking tools and machines.
- () Demonstrate how to handle and store materials according to Material Safety Data Sheets (MSDS).
- () Pass a written safety test with a score of 100 percent.

Students will be able to understand the basic math and measuring concepts 1 2 3 4

- () Calculate board feet and square feet.
- () Read and measure with a tape using sixteenth (1/16).
- () Read and measure using precision dial caliper and vernier calipers using thousandths (1/1000)

Students will be able to understand and demonstrate the use of fasteners/adhesives/abrasives 1 2 3 4

- () Demonstrate the various fasteners and the application for each in cabinetmaking – staples, nails, brads, screws.
- () Demonstrate the correct use of each specified grit size – 80, 100, 120, 220.
- () Demonstrate the application of various adhesives – epoxy, wood glue, contact cement.

Students will be able to understand and demonstrate the use of joinery 1 2 3 4

- () Construct and use basic joints used in cabinetmaking/millwork
- () Mortise and tenon, dowel, biscuit, or pocket
- () Dado, rabbet, groove or miter

Students will be able to understand the wood components and characteristics 1 2 3 4

- () Identify wood species and list the species most suited for cabinet construction –
- () Cherry, Walnut, Maple, Red Oak, Honduras Mahogany, Sugar Pine, Ash.
- () Identify the different grades of lumber – FAS, Select, #1 Common
- () Identify the different cuts of wood – ¼ Sawed, Plane Sliced, Rotary Sliced.
- () Identify the natural defects in lumber – Crook, Cup, Twist, and Bow.
- () Identify man-made materials – Plastic laminate, Particle Board, Plywood, Hard Board, MDF.

Students will be able to understand the importance of employability and work habits 1 2 3 4

- () Integrity (honesty, dependability).
- () Punctuality and attendance.
- () Staying on task (using time effectively).
- () Productive team worker (works well with others)
- () Leadership.

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Program Title _____ CHILD CARE SERVICES - Grosse Ile High School	(c) Competency Certified (nc) Student has been exposed to (o) Omitted from student's program	
WORK HABITS		
Follows directions	_____	Identify symptoms of common illnesses
Demonstrates cooperation	_____	Identify basic first aid procedures
Accepts constructive criticism	_____	Aware of liability issues and fire, health, and building safety issues
Demonstrated initiative	_____	Aware of basic immunization requirements
Demonstrates responsibility	_____	
Maintains a positive attitude	_____	PREPARING AND SERVING FOOD
Attendance is acceptable and dependable	_____	Basic knowledge of foods program
	_____	Basic knowledge of nutrition
	_____	Plan snacks and meals
USING DEPARTMENT OF SOCIAL SERVICES LICENSING PROCEDURES		
Identify State rules and regulations for child care centers	_____	KNOWLEDGE OF HUMAN DEVELOPMENT
Basic background knowledge for working with special needs children	_____	Basic knowledge of characteristics and role of a preschool teacher
	_____	Recognizes development characteristics of children ages 2, 3, 4 and 5
ORGANIZING ACTIVITIES & PROGRAMS		
Plan activities using a lesson plan model	_____	EMPLOYABILITY SKILLS
Plan art activities	_____	Investigate employment information
Plan language activities to enhance the communication skills	_____	Prepare a resume
Plan imaginative play activities to motivate children to learn about their world	_____	Write a letter of application
Plan pre-reading activities	_____	Complete a job application
Plan sensory activities	_____	Gets along well with supervisors and fellow students
Plan coordination activities	_____	Shows responsibility and trustworthiness
Plan cognitive activities	_____	INSTRUCTOR COMMENTS:
Plan musical activities	_____	
Plan science activities	_____	
Plan a field trip	_____	
PRESENTING ACTIVITIES & PROGRAMS		
Present art activities	_____	
Present language activities to motivate children to learn about their world	_____	
Present pre-reading activities	_____	
Present sensory activities	_____	
Present coordination activities	_____	
Present cognitive activities	_____	
Present musical activities	_____	
Present science activities	_____	
PROVIDING GUIDANCE & DIRECTING BEHAVIOR		
Identify inappropriate behavior	_____	
Direct behavior using positive methods of discipline	_____	
Establish reasonable expectations and classroom rules	_____	
Use positive techniques for direct and indirect guidance	_____	
Understands purpose and management of daily routines	_____	
Understands the arrangement of space for a positive learning environment	_____	
Recognizes causes and displays appropriate responses to guidance problems	_____	
Basic knowledge of selecting toys and equipment	_____	
USING HEALTH & SAFETY FEATURES		
Identify causes and effects of child abuse	_____	
Identify procedures to report suspected child abuse	_____	
Identify symptoms of common illnesses	_____	
Identify basic first aid procedures	_____	

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 (nc) Student has been exposed to
 (o) Omitted from student's program

Program Title CHILD CARE SERVICES - Riverview High School

CHILD CARE I

CHILD CARE II

- 1) Knowledge of Human Development
 - ___ Characteristics and role of a preschool teacher
 - ___ Recognizes developmental characteristics of children ages 2, 3, 4 and 5.
- 2) Classroom Management Skills
 - ___ Established reasonable expectations and class-room rules
 - ___ Uses positive techniques for direct and indirect guidance
 - ___ Understands purpose and management of daily routines
 - ___ Recognizes causes and displays appropriate responses to guidance problems
 - ___ Basic background knowledge for working with special needs children
- 3) Aspects of a Safe and Health Environment
 - ___ Arranging space for a positive learning environment
 - ___ Selection of toys and equipment
 - ___ Awareness of liability issues and fire, health and building safety issues
 - ___ Able to plan nutritious meals and snacks
 - ___ Knows basic immunization requirements and some basic first aid procedures
- 4) Curriculum
 - ___ Can determine basic goals and performance objectives for children's activities. Has planned and implemented activities in the following curriculum areas:
 - ___ Art
 - ___ Storytelling
 - ___ Puppetry
 - ___ Science
 - ___ Dramatic play
 - ___ Math
 - ___ Social studies
 - ___ Music/creative movement
 - ___ A field trip for and with young children

- 1) Infants and Toddlers
 - ___ Basic knowledge of the physical, social/emotional and intellectual development of the infant and toddler
 - ___ Able to select appropriate toys and equipment for infants and toddlers
 - ___ Able to plan learning activities for infants and toddlers
- 2) Preschool Aged Children
 - ___ Continued classroom experience working with preschool aged children in a child care setting. Previous skills were practiced and improved.
 - ___ Able to effectively deal with inappropriate behaviors in a child care setting
 - ___ Able to state and enforce reasonable limits
 - ___ Encourages and expands children's knowledge and ideas
- 3) School Aged Children
 - ___ Basic knowledge of the physical, social/emotional and intellectual development of the school aged child
 - ___ Familiar with a variety of conflict resolution techniques
 - ___ Basic background knowledge of causes and symptoms of common exceptionalities in children, and how to deal with the exceptional child in the classroom
- 4) Personal
 - ___ Able to complete an application and resume
 - ___ Gets along well with supervisors and fellow students
 - ___ Shows responsibility and trustworthiness
- 5) Leadership Qualities
 - ___ Effectively able to plan and lead large and small group activities
 - ___ Has successfully planned and lead a full preschool session

DOWNRIVER CAREER TECHNICAL CONSORTIUM

Student Competencies

The tasks listed below include all of the possible areas a student could be involved with in the Building Trades program. The areas identified with a (P) represents tasks in which the student has successfully demonstrated proficiency. The areas identified with (E) are tasks which the student has been exposed to, but at this point, is not demonstrating proficiency.

Program Title	CONSTRUCTION / BUILDING MAINTENANCE	(P)	Proficiency	(E)	Not demonstrating proficiency
MASONRY:	ELECTRICAL (continued):	CARPENTRY (continued):	WELDING (continued):		
Tool I.D. / Use	Use of GFCI	Power Tool I.D. / Use	Mig Horizontal		
Material I.D. / Use	Electrical Lockout	Blueprint Design	Mig Vertical		
Wall Build	Component I.D.	Framing Stairwell	Mig Overhead		
Mortar Mixing	Component Build	Install Shelving	Welding Symbols		
Cinder Block Build	Wire Soldering		Blue Prints		
Cinder Block Cutting	Building Combination Cir.	PLUMBING:	Tool I.D. / Use		
Lead Builds		Tool I.D. / Use	Plasma Cutting		
Applied Math	CARPENTRY:	Material I.D. / Use	Torch Cutting		
Use of Ruler	Floor Framing	Sweat Soldering	Tig Mild Steel		
	Wall Framing	PVC Gluing	Tig Aluminum		
ELECTRICAL:	Cross Bridging	Pipe Threading / Cutting	Safety Proced.		
Tool I.D. / Use	Floor Sheathing	Copper Tubing Flaring	Equipment Repair		
Build Series Circuit	Wall / Partition Construction	DWV Design	Oxy . Accty. Setup		
Build Parallel Circuit	Wall Sheathing	Supply System Design:	Oxy / Accty. Welding		
Rough House Electrical	Hang Drywall	Tap / Die / Drill I.D. / Use	Material I.D. / Use		
Wire / Amp Values	Mud / Sand Drywall	Use of Micrometer	Use of E6013		
Wire Service Panel	Roof Build	Install Sink	Use of E6010		
Electrical Safety	Roof Sheathing	Install Toilet	Use of E7018		
Conduit Bending	Tool I.D. / Use		Use of E7024		
Schematic Drawing	Door Framing	WELDING:	Band Saw Use		
Ohms Law	Window Framing	Arc Flat	Chop Saw Use		
Mount Boxes	Vinyl Siding	Arc Horizontal	Power Grinder		
I.D. Electrical Symbols	Roof Shingling	Arc Vertical	Drill Press Use		
Use of Multi Meter	Material I.D. / Use	Arc Overhead	Pipe Welding		
		Mig Flat			

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Program Title	CONSTRUCTION TECHNOLOGY	(c) Competency Certified (nc) Student has been exposed to (o) Omitted from student's program
1) Orientation	_____	_____
2) Safety procedures - job site	_____	21) Roof sheathing & nailing
3) Inside drain tile	_____	22) Roof shingling
4) I beam installation	_____	23) Set outside door unit
5) Floor framing for hip roof	_____	24) Set windows
6) Framing for stairwell	_____	25) Rough electrical
7) Ladder framing	_____	26) Insulation
8) Basement window framing	_____	27) Hang drywall
9) Cross bridging	_____	28) Set inside door unit
10) Floor sheathing & nailing	_____	29) Trim door & windows
11) Wall framing	_____	30) Base molding
12) Pre-fab cornice on wall	_____	31) Primer & paint
13) Partition construction	_____	32) Hang & install kitchen cabinets
14) Wall & partition alignment	_____	33) Install vanities
15) Cornice tie-in of corners	_____	34) Install shelving
16) Installation of CLG joists	_____	35) Pour porch footings
17) Stair layout & construction	_____	36) Pour sidewalks & drive
18) Layout & cut common rafters	_____	37) Masonry - brick laying
19) Layout & cut hip rafters	_____	38) Cover soffit
20) Layout & cut hip jack rafters	_____	39) Cover all flat stock with aluminum
		40) Seamless gutters & down spouts

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Program Title	<u>ELECTRONICS TECHNOLOGY - Woodhaven High School</u>	(c)	Competency Certified
		(nc)	Student has been exposed to
		(o)	Omitted from student's program
1)	Shop safety	16)	Diode theory
2)	Sources of energy	17)	Diode circuits / power supplies
3)	DC resistive circuits	18)	Transistor theory
4)	Soldering techniques	19)	Transistor amplifiers
5)	Usage of multimeters	20)	Transistor oscillators
6)	Magnetism	21)	Digital theory
7)	Inductance	22)	Logic circuits / OP / AMPS / Timers
8)	Capacitance	23)	Basic micro processors
9)	Meter circuits	24)	Basic micro computers
10)	RLC circuits	25)	Computer theory
11)	Usage of Oscilloscopes	26)	Computer service / equipment
12)	Student project	27)	Operating system theory
13)	Circuit board fabrication	28)	Resumes
14)	House wiring circuits	29)	The Application
15)	Vacuum tube theory	30)	The Interview

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Student Competencies

The goals listed below include those tasks which a student could have accomplished while in the career technical program. The ratings give a general description of the student's level of accomplishment.

Program Title	<u>HEALTH OCCUPATIONS</u>	
Rating:	1) Awareness	
	2) Task accomplished with assistance	
	3) Task accomplished by the student on his / her own, to criteria	
	4) Being able to teach or demonstrate the task to others	

CORE COMPETENCIES:

Infection Control		Rating
Communication Skills		Rating
Health Career Survey		Rating
Safety Procedures		Rating
Nutrition		Rating
Body Mechanics / Transfers		Rating
Growth & Development		Rating
Legal and Ethical Behaviors		Rating
Health Care Delivery System		Rating
Personal Qualities of Health Care Workers		Rating
Vital Signs		Rating
Employment Skills		Rating

CERTIFICATIONS:

Adult CPR		Rating
Child CPR		Rating
Infant CPR		Rating
First Aid		Rating
MI Long Term Nursing Assistant course completion date		Rating
CENA certification date		Rating

LEADERSHIP DEVELOPMENT

HOSA PARTICIPATION
(student organization)

Rating _____

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Program Title	HEATING / COOLING / VENTILATING	(c) Competency Certified (nc) Student has been exposed to (o) Omitted from student's program
1	Demonstrate knowledge of the principles of electricity	
2	Explain electrical terminology	
3	Measure electrical characteristics of electrical circuits	
4	Identify and make proper use of basic hand and power tools	
5	Demonstrate knowledge of the principles of heating	
6	Explain heating terminology	
7	Change pictorial wiring diagram to schematic wiring diagram	34 Install refrigerant tubing
8	Change schematic wiring diagram to pictorial wiring diagram	35 Charge system with refrigerant
9	Read resistance and check electrical continuity with ohmmeter	36 Read pictorial wiring diagram of air conditioner: Window 37 Split
10	Wire gas furnace electrical components using schematic wiring diagram	38 Wire equipment using pictorial air conditioner diagram: Window 39 Split
11	Wire and operate gas furnace electrical components	40 Read schematic air conditioner diagram: Window 42 Packaged
12	Read voltage	41 Split 43 Heat Pump
13	Read amperage	44 Window 46 Packaged
14	Pipe, operate and adjust gas furnace components	45 Split 47 Heat Pump
15	Test thermostats	48 Performance test window air conditioner
16	Read pictorial wiring diagram of furnace: 18 Electric	49 Troubleshoot window air conditioner
17	Oil	50 Install packaged air conditioner
19	Wire equipment using pictorial furnace wiring diagram: Gas	51 Performance test packaged air conditioner
20	Read schematic furnace wiring diagrams: Gas	52 Troubleshoot packaged air conditioner
21	Wire equipment using schematic furnace wiring diagrams: Gas	53 Install split air conditioner
22	Troubleshoot electrical furnace circuits: Gas	54 Performance test split air conditioner
23	Install, operate and test gas furnace	55 Troubleshoot split air conditioner
24	Troubleshoot gas furnace	56 Demonstrate knowledge of the principles of refrigeration
25	Flare tubing	57 Explain refrigeration terminology
26	Bend tubing	58 Read pictorial wiring diagram of domestic refrigerator/freezer freezer
27	Install, operate and test electric furnace	59 Read schematic wiring diagram of domestic refrigerator/freezer freezer
28	Troubleshoot electric furnace	60 Wire equipment using schematic wiring diagram of domestic refrigerator/freezer freezer
29	Layout simple ducts and fittings	61 Performance test domestic refrigerator/freezer
30	Fabricate simple ducts and fittings	62 Troubleshoot domestic refrigerator/freezer
31	Demonstrate knowledge of the principles of air conditioning	63 Performance test domestic freezer
32	Explain air conditioning terminology	64 Troubleshoot domestic freezer
33	Locate and repair refrigerant leaks	65 Read pictorial wiring diagram of commercial refrigeration system
		66 Wire commercial refrigeration system using pictorial wiring diagram
		67 Read schematic wiring diagram of commercial refrigeration system
		68 Performance test commercial refrigeration system
		69 Troubleshoot commercial refrigeration system
		70 Practice safe working methods

DOWNRIVER CAREER TECHNICAL CONSORTIUM

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Program Title	<u>HOSPITALITY AND FOOD SERVICES</u>	(c) (nc) (o)	Competency Certified Student has been exposed to Omitted from student's program
Essential Duties and Tasks			
1) Define hospitality terms	_____	16) Maintain all surfaces	_____
2) Interact with guests	_____	17) Display personal hygiene	_____
3) Explain fees / pricing	_____	18) Lift heavy objects	_____
4) Provide guest information	_____	19) Demonstrate safety	_____
5) Handle customer complaints	_____	20) Develop community awareness	_____
6) Handle handicapped needs	_____	21) Develop state tourism awareness	_____
7) Complete hospitality needs	_____	22) Answer the telephone	_____
8) Operate a phone system	_____	23) Use telephone resources	_____
9) Process mail	_____	24) Follow regulatory agency procedures	_____
10) Perform computer operations	_____	25) Locate first-aid equipment	_____
11) Maintain a filing system	_____	26) Demonstrate suggestive selling techniques	_____
12) Maintain an inventory system	_____	27) Develop cost awareness	_____
13) Accept a customer's accounts receivable	_____	28) Recognize advertising	_____
14) Operate a cash register	_____	29) Perform professional product presentation	_____
15) Maintain safe surroundings	_____		_____
			Front of the House Operation
		30) Weigh ingredients according to the U.S. system	_____
		31) Measure ingredients according to the U.S. system	_____
		1) Greet customers	_____
		2) Seat Customers	_____
		3) Write orders	_____
		4) Serve Food	_____
		5) Set Tables	_____
		6) Clear table of dishes	_____
		7) Operate cash register	_____
		8) Set up cash drawer	_____

DOWNRIVER CAREER TECHNICAL CONSORTIUM

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<u>Program Title</u> <u>MACHINE TRADES TECHNOLOGY</u>	<u>TASK</u>	<u>RATING</u>	<u>TASK</u>	<u>RATING</u>
<u>LATHE</u>	General Lathe Operation	_____	<u>SURFACE GRINDER</u>	_____
	Chuck and Collet Work	_____	General Use	_____
	Between Centers Turning	_____	Dress a Wheel	_____
	Cutting External Threads	_____	Select Wheels (II)	_____
	Grinding Tool Bits	_____	Grinding Angles (II)	_____
	4-Jaw Chuck Indicating	_____	<u>SAWING</u>	_____
	Boring	_____	Select Blades and Speeds	_____
	Cutting a Taper	_____	Welding Saw Blades	_____
	Align Centers (II)	_____	<u>MEASUREMENT</u>	_____
	Form Turn (II)	_____	Read Micrometer	_____
	Cut Internal Thread (II)	_____	Read Vernier Scales	_____
	Tool Post Grind (II)	_____	Use Vernier Height Gage (II)	_____
		_____	Use Sine Bar (II)	_____
		_____	Use Gage Blocks (II)	_____
	<u>DRILL PRESS</u>		<u>METALLURGY</u>	_____
Drill, C'Bore, C'Sink, Spot Face	_____	Define Common Terms	_____	
Power Tap and Ream	_____	Spark Testing (II)	_____	
Use of Work Holding Devices	_____	<u>THREADS</u>	_____	
I, D, Drill Parts and Grind	_____	Use Taps and Dies	_____	
	_____	I.D. Threaded Fasteners	_____	
<u>VERTICAL MILL</u>		<u>PRE-MACHINING SKILLS</u>	_____	
Indicate Vise and Workpiece	_____	Layout Technique	_____	
Basic Milling Technique	_____	Sketch Usable Working Drawing	_____	
Point to Point Location	_____		_____	
Tramming the Head	_____		_____	
Mount and Align 90° Head	_____		_____	
Boring (II)	_____		_____	
Use Dividing Head (II)	_____		_____	
Use Rotary Table (II)	_____		_____	
Use Sine Table (II)	_____		_____	

(c) Competency Certified
(nc) Student has been exposed to
(o) Omitted from student's program

DOWNRIVER CAREER TECHNICAL CONSORTIUM

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Program Title MARINE MECHANICS

1) ENGINE OVERHAUL

- _____ Diagnose engine problems
- _____ Disassemble engine
- _____ Reassemble complete
- _____ Remove and install engine

2) COOLING SYSTEM

- _____ Test freezing point
- _____ Pressure test cooling system

3) FUEL SYSTEMS

- _____ Measure fuel flow and pressure
- _____ Clean and service fuel system
- _____ Service, repair and adjust carburetor

4) ELECTRICAL

- _____ Tune-up (idle speed, idle mixture and timing)
- _____ Testing and servicing alternators, ignition systems, starters and batteries
- _____ R & R plugs, distributors, starters and alternators and ignition systems

_____ Test and diagnose engine controls (including computer controls)

5) POWER TRAINS

- _____ R & R lower unit service water pump

DOWNRIVER CAREER TECHNICAL CONSORTIUM

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Program Title <u>METALS FABRICATION - Flat Rock High School</u>	(c) Competency Certified (nc) Student has been exposed to (o) Omitted from student's program	
Setting Up Welding Equipment		
___ Air carbon arc cutting	___	___ E12018
___ Gas metal arc welding (MIG)	___	___ ER70S-1
___ Oxyacetylene cutting and welding	___	___ ER70S-3
___ Shielded metal arc welding (Stick)	___	___ ER70S-6
___ Gas tungsten arc welding (TIG)	___	___ ER70T-1
___ Plasma arc cutting and welding	___	___ ER71C-1
___ Submerged arc welding	___	___ E308-16
___ Flux cord arc welding	___	___ E7018-M
Performing Burning / Welding Activities		
___ Burn (cutting) material manual	___	___
___ Burn (cutting) material mechanized	___	___
___ Pipe using GMAW	___ Alum	___
___ Pipe using OAW	___ Stainless	___
___ Pipe using SMAW	___ Steel	___
___ Pipe using GTAW	___ vee Butt GMAW	___
___ Fillets using GMAW	___ vee Butt OAW	___
___ Fillets using OAW	___ vee Butt SMAW	___
___ Fillets using SMAW	___ vee Butt GTAW	___
___ Fillets using GTAW	___ Plasma arc welding	___
Performing Welding Activities Positions		
___ Fillets flat	___	___
___ Fillets vertical	___	___
___ Fillets horizontal	___	___
___ Fillets overhead	___	___
___ Groove flat	___	___
___ Groove vertical	___	___
___ Groove horizontal	___	___
___ Groove overhead	___	___

AWS Electrodes Use		
___ E6010 or E6011	___	___ E12018
___ E7010-A1	___	___ ER70S-1
___ E6012 or E6013	___	___ ER70S-3
___ E7024	___	___ ER70S-6
___ E7027	___	___ ER70T-1
___ E7018	___	___ ER71C-1
___ E7028	___	___ E308-16
___ E7018-M	___	___
Qualification / Process		
AWS Structural Electrode		
___ 1-G plate size	___	___
___ 2-G plate size	___	___
___ 3-G plate size	___	___
___ 4-G plate size	___	___
___ Pipe qualification electrode (s)	___	___
___ 5-G wall size	___	___
___ 6-G wall size	___	___
Weld Test		
___ Root bend)	___	___ Tenside test
___ Face bend)	___	___ Pressure test
___ Side bend)	___	___ Die penetrant
Performing Related Activities		
___ Power cut off shears	___	___ Blue Print
___ Power saw / abrasive wheel	___	___ Power grinders
___ Pipe cutter	___	___ Drill press
___ Identify type of metals	___	___ Lay out work
___ Prepare metal surface for welding	___	___ Pipe layouts
___ Pre and post heat metals	___	___

DOWNRIVER CAREER TECHNICAL CONSORTIUM

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Program Title METALS FABRICATION - Woodhaven High School

(c) Competency Certified
 (nc) Student has been exposed to
 (o) Omitted from student's program

Setting Up Welding Equipment

- ___ Air carbon arc cutting
- ___ Gas metal arc welding (MIG)
- ___ Oxyacetylene cutting and welding
- ___ Shielded metal arc welding (Stick)
- ___ Gas tungsten arc welding (TIG)
- ___ Plasma arc cutting and welding
- ___ Submerged arc welding

AWS Electrodes Use (continued)

- ___ E7018
- ___ E7028
- ___ E7018-M
- ___ E8018
- ___ E11018

Qualification/Process

Performing Burning/Welding Activities

- ___ Burn (cutting) material manual
- ___ Burn (cutting) material mechanized
- ___ Pipe using GMAW
- ___ Pipe using OAW
- ___ Pipe using SMAW
- ___ Pipe using GTAW
- ___ Fillets using GMAW
- ___ Fillets using OAW
- ___ Fillets using SMAW
- ___ Fillets using GTAW
- ___ Open vee Butt GMAW
- ___ Open vee Butt OAW
- ___ Open vee Butt SMAW
- ___ Open vee Butt GTAW
- ___ Plasma arc welding

AWS Structural Electrode

- ___ 1-G plate size
- ___ 2-G plate size
- ___ 3-G plate size
- ___ 4-G plate size
- ___ Pipe qualification electrode(s)
- ___ 5-G wall size
- ___ 6-G wall size

Weld Test

- ___ Root bend)
- ___ Face bend)
- ___ Side bend)
- ___ Tensile test
- ___ Pressure test
- ___ Die penetrant
- ___ Guide bend test

Performing Welding Activities Positions

- ___ Fillets flat
- ___ Fillets vertical
- ___ Fillets horizontal
- ___ Fillets overhead
- ___ Groove flat
- ___ Groove vertical
- ___ Groove horizontal
- ___ Groove overhead

Performing Related Activities

- ___ Power cut off shears
- ___ Power saw/abrasive wheel
- ___ Pipe cutter
- ___ Identify type of metals
- ___ Prepare metal surface for welding
- ___ Pre and post heat metals
- ___ Blue print
- ___ Power grinders
- ___ Drill press
- ___ Lay out work
- ___ Pipe layouts
- ___ Lathe

AWS Electrodes Use

- ___ E6010 or E6011
- ___ E7010-A1
- ___ E8010-G
- ___ E6012 or E6013
- ___ E7024
- ___ E7027

DOWNRIVER CAREER TECHNICAL CONSORTIUM

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(c) Competency Certified

(nc) Student has been exposed to

(o) Omitted from student's program

Program Title Teacher Cadet - Grosse Ile High School

WORK HABITS

- ___ follows directions
- ___ demonstrates cooperation
- ___ accepts constructive criticism
- ___ demonstrated initiative
- ___ demonstrates responsibility
- ___ maintains a positive attitude
- ___ attendance is acceptable and dependable

EMPLOYABILITY SKILLS

- ___ gets along well with supervisors and fellow students
- ___ shows responsibility and trustworthiness
- ___ treated field experience as a professional experience
- ___ maintain confidentiality of student information at all times
- ___ follows proper procedure when absent

CAREERS IN EDUCATION

- ___ basic knowledge of various teaching specialties
- ___ basic knowledge of non-teaching careers
- ___ basic knowledge of college requirements for teaching specialties
- ___ basic knowledge of critical issues relative to education

HUMAN GROWTH, DEVELOPMENT, AND LEARNING

- ___ identify the physical factors that affect learning
- ___ identify the five developmental areas
- ___ basic knowledge of student learning styles

PROFESSIONAL GROWTH AND DEVELOPMENT

- ___ basic knowledge of professional organizations relative

UNDERSTANDING SCHOOL STRUCTURE

- ___ list and explain 5 school policies
- ___ basic understanding of "site-based" decision making
- ___ basic understanding of "North Central Accreditation"
- ___ basic understanding of "School Improvement"
- ___ list school leadership positions

CADET FIELD EXPERIENCE ACCOUNTABILITY

- ___ report daily at expected time and remain for the required length of time
- ___ report illness/absence by contacting cooperating teacher
- ___ notify cooperating teacher in advance of schedule changes
- ___ follow field site rules and procedures
- ___ demonstrate an understanding of the importance of confidentiality
- ___ demonstrate honesty in all situations
- ___ perceptive of classroom needs and responds when necessary

INSTRUCTIONAL PLANNING

- ___ determine the needs and interests of students
- ___ develop a unit of instruction
- ___ develop a lesson plan
- ___ prepare teacher-made instructional materials

INSTRUCTIONAL PERFORMANCE

- ___ conduct group and classroom discussions
- ___ direct students in peer teaching techniques
- ___ guide student study
- ___ direct students in applying problem-solving techniques

- ___ summarize a lesson
- ___ employ oral questioning techniques
- ___ employ reinforcement techniques
- ___ provide instruction according to learner needs
- ___ demonstrate a manipulative skill
- ___ demonstrate a concept or principle
- ___ individualize instruction
- ___ prepare bulletin boards and exhibits
- ___ present information utilizing various technologies
- ___ present information utilizing flip chart/chalk board/overhead

INSTRUCTIONAL EVALUATION

- ___ basic knowledge of student performance criteria
- ___ basic knowledge of assessing student performance; knowledge
- ___ basic knowledge of assessing student performance; attitudes
- ___ basic knowledge of assessing student performance; skills
- ___ basic knowledge in determining student grades
- ___ basic knowledge of the needs of special/exceptional students

INSTRUCTIONAL MANAGEMENT

- ___ assist on field trips
- ___ basic knowledgeable of student safety issues
- ___ basic knowledgeable of first aid needs of students
- ___ basic knowledge of assisting students in developing self-discipline
- ___ basic knowledge of classroom organization
- ___ basic knowledge of classroom management

INSTRUCTOR COMMENTS:

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Program Title	<u>VIDEO APPLIED COMMUNICATIONS</u>	(c) Competency Certified
		(nc) Student has been exposed to
		(o) Omitted from student's program
1) Videography Certified	_____	_____
2) Editing		_____
3) Linear	_____	_____
4) Non-Linear	_____	_____
5) Shooting		_____
6) Hard Camera	_____	_____
7) Hand Held	_____	_____
	8) Graphics	_____
	9) Script Writing	_____
	10) Story Board	_____
	11) Audio	_____
	12) Directing	_____
	13) Technical Directing	_____