2015/2016 Student Competency Record
Engineering Drawing and Design
8493 - 18 weeks

_____   _____
Student   **School Year**

_____   _____
School   **Teacher Signature**

Traditional letter or numerical grades do not provide adequate documentation of student achievement in competency-based education; therefore, the Virginia Standards for CBE require a recording system to provide information about competencies achieved to employer, student-employee, and teacher. The Student Competency Record provides a means for keeping track of student progress. Ratings are assigned by the teacher for classroom competency achievement and by the teacher-coordinator in conjunction with the training sponsor when competence is evaluated on the job.

Tasks/competencies designated "Required" are considered essential statewide and are required of all students. In some courses, all tasks/competencies have been identified as required. Tasks/competencies marked "Optional" are considered optional; they and/or additional tasks/competencies may be taught at the discretion of the school division. Tasks/competencies marked with an asterisk (*) are considered sensitive, and teachers should obtain approval by the school division before teaching them.

Note: Students with an Individualized Education Program (IEP) or an Individualized Student Alternative Education Plan (ISAEP) will be rated, using the following scale, only on the competencies identified in their IEP or ISAEP.

Students will be expected to achieve a **satisfactory rating** (one of the three highest marks) on the Student Competency Record (SCR) rating scale on at least 80% of the required (essential) competencies in a CTE course.

...RATING SCALE...
1 - Can teach others
2 - Can perform without supervision
3 - Can perform with limited supervision
4 - Can perform with supervision
5 - Cannot perform

8493 18 weeks		Engineering Drawing and Design TASKS/COMPETENCIES	Date	Rating
		Demonstrating Workplace Readiness Skills: Personal Qualities and People Skills		
Required	1	Demonstrate positive work ethic.		
Required	2	Demonstrate integrity.		
Required	3	Demonstrate teamwork skills.		
Required	4	Demonstrate self-representation skills.		
Required	5	Demonstrate diversity awareness.		
Required	6	Demonstrate conflict-resolution skills.		
Required	7	Demonstrate creativity and resourcefulness.		
		Demonstrating Workplace Readiness Skills: Professional Knowledge and Skills		
Required	8	Demonstrate effective speaking and listening skills.		
Required	9	Demonstrate effective reading and writing skills.		
Required	10	Demonstrate critical-thinking and problem-solving skills.		
Required	11	Demonstrate healthy behaviors and safety skills.		
Required	12	Demonstrate an understanding of workplace organizations, systems, and climates.		
Required	13	Demonstrate lifelong-learning skills.		
Required	14	Demonstrate job-acquisition and advancement skills.		
Required	15	Demonstrate time-, task-, and resource-management skills.		
Required	16	Demonstrate job-specific mathematics skills.		
Required	17	Demonstrate customer-service skills.		
		Demonstrating Workplace Readiness Skills: Technology Knowledge and Skills		
Required	18	Demonstrate proficiency with technologies common to a specific occupation.		
Required	19	Demonstrate information technology skills.		
Required	20	Demonstrate an understanding of Internet use and security issues.		
Required	21	Demonstrate telecommunications skills.		
		Examining All Aspects of an Industry		
Required	22	Examine aspects of planning within an industry/organization.		
Required	23	Examine aspects of management within an industry/organization.		
Required	24	Examine aspects of financial responsibility within an industry/organization.		

Required	25	Examine technical and production skills required of workers within an industry/organization.		
Required	26	Examine principles of technology that underlie an industry/organization.		
Required	27	Examine labor issues related to an industry/organization.		
Required	28	Examine community issues related to an industry/organization.		
Required	29	Examine health, safety, and environmental issues related to an industry/organization.		
	Addressing Elements of Student Life			
Required	30	Identify the purposes and goals of the student organization.		
Required	31	Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.		
Required	32	Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects.		
Required	33	Identify Internet safety issues and procedures for complying with acceptable use standards.		
	Introducing the Design Process			
Required	34	Define *engineering drawing*.		
Required	35	Describe the engineering design process.		
Required	36	Apply the engineering design process.		
	Exploring Engineering Design Foundations			
Required	37	Investigate engineering-related careers.		
Required	38	Acquire specification information, using a reference library of technical data.		
Required	39	Use English and metric measuring devices and systems.		
Required	40	Create objects, using solid modeling.		
Required	41	Apply mathematical formulas to engineering drawings.		
	Producing Illustrations			
Required	42	Prepare drawings of parts that transfer energy or motion in mechanical systems.		
Optional	43	Draw a thread detail.		
Required	44	Prepare freehand technical sketches.		
Required	45	Apply advanced principles of dimensioning and annotation.		
Required	46	Develop design ideas using freehand multi-view and pictorial sketches.		

Required	47	Design an assembly and prepare working drawings.		
Required	48	Use descriptive geometry to solve problems.		
Required	49	Create auxiliary views and revolutions.		
Required	50	Create development drawings.		
Required	51	Construct models from various geometric shapes created from development drawings.		
Optional	52	Create examples of mechanical, fluid, and/or electrical/electronic drawings.		
Required	53	Deliver a presentation to explain an engineered system.		
	Locally Developed Tasks/Competencies			