Maryland CTE Program of Study

## Graphic Communications - PrintED Program Proposal Form

Maryland State Department of Education

Division of Career and College Readiness

200 West Baltimore Street

Baltimore, Maryland 21201-2595

This agreement is between the Division of Career Technology and Adult Learning (DCTAL), Maryland State Department of Education, and the local school system listed below.

**LOCAL SCHOOL SYSTEM INFORMATION –** Complete the information requested below, including the original signature of the CTE local director.

|  |  |
| --- | --- |
| Local School System (LSS) and Code: |  |
| Name of CTE local director: |  | Phone: |  |
| LSS Career Cluster: |  |
| LSS Program Title: |  |
| Pathway Options: | 1. | 2. | 3. |
| Value AddedOptions:  | [x]  yes[ ]  yes[ ]  yes  | [ ]  no[ ]  no[ ]  no | This program provides students the opportunity to earn early college credit. The academic and technical course sequences for both secondary and postsecondary programs are included herein.Enclosed is a copy of the articulation agreement (Copy required for CTE program approval if the program is articulated with a postsecondary education provider). This program provides students with the opportunity to earn an industry-recognized credential. The credential is identified herein. |
| Program Start Date: |  |  |  |
| Signature of CTE Local Director: |  | Date: |  |
| Signature of Local Superintendent: |  | Date: |  |

**TO BE COMPLETED BY MSDE/DCTAL**

|  |  |
| --- | --- |
| Date Program Proposal received by CTE Systems Branch: |  |
| CTE Control Number: |  | Fiscal Year: |  |
| CIP Number: | Program: **10.0350**  | Pathway Graphic Option 1: **Communications**  | PathwayOption 2:  | PathwayOption 3: |
| MSDE Cluster Title: | Graphic Communications - PrintED |

|  |  |  |
| --- | --- | --- |
| **Approval Starts FY: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |  |
|  |  |  |
| Signature, Assistant State Superintendent, Career Technology & Adult Learning |  | Date |

**CTE Secondary Program Proposal Contents**

**STEP 1A: PROGRAM ADVISORY COMMITTEE MEMBERS AND THEIR AFFILIATIONS**

Complete the list of the Program Advisory Committee (PAC) members. Members should include employers, local workforce development representatives, economic development personnel, business, or labor representatives, and the remainder should include secondary and postsecondary, academic and technical educators and other stakeholders. Place a check in the appropriate box to indicate the role each person plays. Include all of the information requested for each entry. Use this form or a locally developed form – either one is acceptable as long as all information is provided.

# Program Advisory Committee List

|  |
| --- |
| **Membership: First entry should be the industry representative who is leading the PAC.** |
| PAC Leader Name: |  | Representation: |
| Title: |  | [ ]  Industry [ ]  Secondary [ ]  Postsecondary  |
| Affiliation: |  |
| Address1: |  |
| Address2: |  |
| City, State, Zip: |  | State: |  | Zip |  |
| Phone: |  | Fax: |  |
| Email: |  |
| Area of Expertise: |  |
| Role: | [ ]  Work-based Learning [ ]  Curriculum Development [ ]  Skills Standards Validation [ ]  Staff Development |
| [ ]  Program Development  | [ ]  Other (specify):  |  |

|  |  |  |
| --- | --- | --- |
| Name: |  | Representation: |
| Title: |  | [ ]  Industry [ ]  Secondary [ ]  Postsecondary  |
| Affiliation: |  |
| Address1: |  |
| Address2: |  |
| City, State, Zip: |  | State: |  | Zip |  |
| Phone: |  | Fax: |  |
| Email: |  |
| Area of Expertise: |  |
| Role: | [ ]  Work-based Learning [ ]  Curriculum Development [ ]  Skills Standards Validation [ ]  Staff Development |
| [ ]  Program Development  | [ ]  Other (specify):  |  |

|  |  |  |
| --- | --- | --- |
| Name: |  | Representation: |
| Title: |  | [ ]  Industry [ ]  Secondary [ ]  Postsecondary  |
| Affiliation: |  |
| Address1: |  |
| Address2: |  |
| City, State, Zip: |  | State: |  | Zip |  |
| Phone: |  | Fax: |  |
| Email: |  |
| Area of Expertise: |  |
| Role: | [ ]  Work-based Learning [ ]  Curriculum Development [ ]  Skills Standards Validation [ ]  Staff Development |
| [ ]  Program Development  | [ ]  Other (specify):  |  |

|  |  |  |
| --- | --- | --- |
| Name: |  | Representation: |
| Title: |  | [ ]  Industry [ ]  Secondary [ ]  Postsecondary  |
| Affiliation: |  |
| Address1: |  |
| Address2: |  |
| City, State, Zip: |  | State: |  | Zip |  |
| Phone: |  | Fax: |  |
| Email: |  |
| Area of Expertise: |  |
| Role: | [ ]  Work-based Learning [ ]  Curriculum Development [ ]  Skills Standards Validation [ ]  Staff Development |
| [ ]  Program Development  | [ ]  Other (specify):  |  |

|  |  |  |
| --- | --- | --- |
| Name: |  | Representation: |
| Title: |  | [ ]  Industry [ ]  Secondary [ ]  Postsecondary  |
| Affiliation: |  |
| Address1: |  |
| Address2: |  |
| City, State, Zip: |  | State: |  | Zip |  |
| Phone: |  | Fax: |  |
| Email: |  |
| Area of Expertise: |  |
| Role: | [ ]  Work-based Learning [ ]  Curriculum Development [ ]  Skills Standards Validation [ ]  Staff Development |
| [ ]  Program Development  | [ ]  Other (specify):  |  |

|  |  |  |
| --- | --- | --- |
| Name: |  | Representation: |
| Title: |  | [ ]  Industry [ ]  Secondary [ ]  Postsecondary  |
| Affiliation: |  |
| Address1: |  |
| Address2: |  |
| City, State, Zip: |  | State: |  | Zip |  |
| Phone: |  | Fax: |  |
| Email: |  |
| Area of Expertise: |  |
| Role: | [ ]  Work-based Learning [ ]  Curriculum Development [ ]  Skills Standards Validation [ ]  Staff Development |
| [ ]  Program Development  | [ ]  Other (specify):  |  |

|  |  |  |
| --- | --- | --- |
| Name: |  | Representation: |
| Title: |  | [ ]  Industry [ ]  Secondary [ ]  Postsecondary  |
| Affiliation: |  |
| Address1: |  |
| Address2: |  |
| City, State, Zip: |  | State: |  | Zip |  |
| Phone: |  | Fax: |  |
| Email: |  |
| Area of Expertise: |  |
| Role: | [ ]  Work-based Learning [ ]  Curriculum Development [ ]  Skills Standards Validation [ ]  Staff Development |
| [ ]  Program Development  | [ ]  Other (specify):  |  |

STEP 1B: DOCUMENTED LABOR MARKET DEMAND – Check the appropriate box below.

[x]  Demand exists

The PAC will review labor market information on a local, regional and/or state basis. Check this box if demand exists for the identified occupations. The labor market information does not need to be provided with the proposal as long as there is a demand for employees according to data provided by the Department of Labor, Licensing and Regulation (DLLR) or documented by employers in letters or other correspondence.

[ ]  If evidence for labor market demand is not readily available, attach documentation to the proposal.

Check this box if there is a unique labor market demand for a program and data are not available from the Department of Labor, Licensing and Regulation (DLLR). If the occupation is new or emerging and no data exist, supporting evidence is submitted with the proposal (i.e. document local, national, or regional trends, local circumstances, or provide letters from employers or local economic/workforce development offices documenting employment demand including the projected number of openings by pathway).

**STEP 2A: PROGRAM OVERVIEW** – After determining the cluster and pathway options, identify the standards used to develop the CTE program of study. Describe the program to be developed in detail based on what students are expected to know and be able to demonstrate as a result of participating in the program.

|  |
| --- |
| **Indicate the title and source of the skills standards for this program: National Printing Industry Skill Standards Graphic Arts Technical Foundation** |
| **Program Overview:** The [Graphics Communication Program](http://www.gaerf.org) (PrintED) is designed to give students an overall understanding of the graphics communication industry and its major operations while teaching competencies that lead to national PrintED certification. PrintED, administered by the Graphic Arts Education and Research Foundation (GAERF), is a national accreditation program based on industry standards for graphic communications courses of study at the secondary and postsecondary levels. In Maryland, PrintED is supported by the [Printing and Graphics Association MidAtlantic](http://www.pgama.com), an industry organization that assists with professional development, curriculum, work based learning and the SkillsUSA contest. Students can gain certification in up to seven areas: Introduction to Graphic Communications, Digital File Preparation, Digital File Output, Offset Press Operations, Binding and Finishing, Advertising and Design and Digital Production Printing. While gaining the technical skills they need to succeed in this career pathway, students can also earn college credits through articulation agreements with community colleges and four year colleges. The Graphics Communication Program - PrintED consists of three components that students are required to complete: 1) The program of study which consists of the Introduction to Graphic Communication course and two or more PrintED courses; 2) The PrintED competencies for each course (these range from 36 to103 competencies per course, and students must master 80% of the competencies); 4) PrintED end-of-course certification exams. Before submitting the program of study proposal, the local school system must apply for PrintED accreditation for the site and receive approval from GAERF for the teacher’s Instructor Data Form. **Program of Study** The Career and Technology Education Graphics Communication Program consists of seven courses. *Schools may only offer the courses that the school is accredited for and the teacher is certified in through PrintED.* All schools must offer the foundation course, Introduction to Graphic Communications, and may choose among the following:* Digital File Preparation
* Digital File Output
* Offset Press Operations
* Binding and Finishing
* Digital Production Printing
* Advertising and Design
* Advanced Graphic Communications

Students completing the program will be able to:* Understand the role of graphics in the free enterprise system and identify print markets, major printing processes, major occupations in the graphic arts field, and the business flow of printing from initial concept to final product. *Introduction to Graphic Communications.*
* Create a design using tints and fills using a graphics program; create a 4 page newsletter using windows, blocks, text, graphics, frames and headings. *Digital File Preparation*.
* Print a two-color job with color bars; print a multi color job with register marks. *Offset Press Operations*
* Demonstrate importing scanned digital images to page layout software, demonstrate appropriate digital camera operations, and import digital images from a digital camera into the computer. *Digital File Preparation*
* Send a printing job to a Raster Image Processor (RIP); release a job from the RIP to a digital press; print and finish a perfect bound booklet. *Digital Production Printing*
* Demonstrate the proper trap to apply to a digitally created page using page layout, illustration, and or trapping software. *Digital File Output*
* Produce side and saddle stitched/stapled products; demonstrate proper paper handling procedures; demonstrate proper set up and operation of a folder consistent with job specifications. *Binding and Finishing*

The High School will:1. Offer only those PrintED courses that the program was awarded accreditation for and for which the teacher achieved certification.
2. Maintain the programs PrintED accreditation status and renew accreditation after five years (If PrintED certification is withdrawn or lapses, CTE program approval will be withdrawn).
3. Agree to require students to take the SkillsUSA/PrintED end of course exam for Graphic Communications, and an exam for either Digital File Preparation, Offset Press, of Advertising and Design, depending on the school’s accreditation. Exams are based on PrintED competencies, and students who pass the exams will receive certificates. The fee is $10.00 per assessment for students in PrintED programs and for students who are [Skills USA](http://www.workforcereadysystem.org/) members.

  |

**STEP 2B: COURSE DESCRIPTIONS AND END OF COURSE ASSESSMENTS** – Insert each CTE completer course title. Describe each course based on what students are expected to know and be able to demonstrate as a result of their participation. Check the assessment instrument(s) that will be used to document student attainment of the knowledge and skills included in each course and specify additional information as appropriate.

|  |
| --- |
| **Course Title: Introduction to Graphic Communications** **Course Description:** This required foundation course provides an overview of the graphic communications industry. Students demonstrate 103 competencies while developing an overall understanding of the industry and its major operations. The competencies include nine subsections: * *Introduction to the Printing Industry.*
* *Environmental Health and Safety and First Aid*
* *Digital File Preparation*
* *Image Capture*
* *Color Theory*
* *Digital File Output.* .
* *Press Operations (Offset and Digital).*
* *Bindery Operations*
* *Measurement*
* *Math*
* *Job Application and Interpersonal Skills*

Students completing this course will be able to:* Define the role of graphics in the free enterprise system and identify print markets, major printing processes, major occupations in the graphic arts field, and the business flow of printing from initial concept to final product;
* Identify the types of major companies that employ people with graphic communications skills;
* Explain the significance of PDF as it pertains to the printing industry;
* Explain and identify the difference between scanning hardware, digital cameras, and line art and continuous tone originals;
* Explain additive and subtractive color theory;
* Identify and describe digital platemaking equipment for offset plates;
* Identify and explain different binding methods and applications, including case binding, perfect binding, saddle stitching and lay flat;
* Students learn the various applications of measurement in graphics and printing, such as linear dimensions for printing materials, measuring type, measuring volume for mixing chemicals, and measuring copy for reduction and enlargement;
* Solve various math problems applied to the printing industry, such as cost calculation, converting inches to points, and ratio and proportion;

**End of Course Assessment**Check the assessment instruments that will be used to document student attainment of the course knowledge and skills.[ ]  Teacher-designed end-of-course assessment[ ]  School system-designed end-of-course assessment[ ]  Partner-developed exam: (specify)      [ ]  Licensing exam: (specify)      [x]  Certification or credentialing exam: (specify) PrintED/SkillsUSA Graphic Communications Exam [x]  Nationally recognized examination: (specify) PrintED/SkillsUSA Graphic Communications Exam       |
| **Course Title: Digital File Preparation**Course Description: In this course students demonstrate 80 competencies that are procedures required in each step of file preparation. These include basic design elements and principles, file construction, fonts, page layout, image capture, illustration, and PDF creation. Many of the competencies require students to describe, identify, explain, measure and/or distinguish file-related issues. Approximately half the competencies require students to demonstrate various skills in creating and exporting images and laying out a page in appropriate software.This course includes six sections: * *Orientation*
* *Type*
* *Page Layout*
* *Image Capture*
* *Illustration*
* *PDF*

Students completing this course will be able to: * Identify the basic principles of design, produce a single color document, select appropriate software for word processing, illustration, image editing and page layout; and preflight a document using application preflight software.
* Identify type styles, type characteristics, type arrangements, and demonstrate loading, displaying and organizing fonts using a font management software application.
* Create a four-page newsletter using windows, blocks, text graphics frames and headings. Students demonstrate the proper procedures for printing a proof using page layout software.
* Demonstrate importing scanned digital images to page layout software, demonstrate appropriate digital camera operations, and import digital images from a digital camera into the computer.
* Create designs using graphics programs, including tints and fills, manipulated type, and electronic clip art.
* Create a PDF from a native application file and distinguish among a press quality PDF, a print-quality PDF, and the smallest file-size PDF.

**End of Course Assessment**Check the assessment instruments that will be used to document student attainment of the course knowledge and skills.[ ]  Teacher-designed end-of-course assessment: Students must master 80% of the PrintED competencies.[ ]  School system-designed end-of-course assessment[ ]  Partner-developed exam: (specify)      [ ]  Licensing exam: (specify)      [x]  Certification or credentialing exam: (specify) (PrintED Digital File Preparation/Digital File Output exam) [x]  Nationally recognized examination: (specify) PrintED Digital File Preparation/Digital File Output exam |
| **Course Title: Digital File Output**Course Description: The 40 competencies in this accreditation area require that students have an understanding of the steps needed to prepare a client file for printing, from preflighting through platemaking. Most of the competencies require students to define specific activities and identify various procedures and equipment components. Students are also expected to prove their ability to perform the following functions: repair a native digital file, repair a PDF, make a folding dummy, make a digital hard and soft proof, and output a digital file to a platesetter.Students completing this course will be able to: * Repair a native file and PDF that exhibits basic file problems
* Demonstrate the proper trap to apply to a digitally created page using page layout, illustration, and or trapping software
* Demonstrate how to impose a document using a digital imposition software
* Output a multicolor digital file to direct-to-plate system, digital inkjet printer, laser printer of digital press
* Output a file to a digital color proofing device
* Describe process control procedures necessary for successful digital file output.

[x]  Teacher-designed end-of-course assessment based on the PrintED competencies – Students must master 80% of competencies.School system-designed end-of-course assessment[ ]  Partner-developed exam: (specify)      [ ]  Licensing exam: (specify)      [x]  Certification or credentialing exam: (specify) PrintED Digital File Preparation/Digital File Output exam[x]  Nationally recognized examination: (specify) PrintED Digital File Preparation/Digital File Output exam |
| **Course Title: Offset Press Operations****Course Description:** This course covers 42 competencies that ensure a sound knowledge of platemaking, ink, paper, and fountain solution used for offset lithography. Some competencies require students to identify press parts and basic operations procedures, while 20 of the competencies require student to demonstrate their ability to perform makeready steps, print different types of one-and two-color jobs, evaluate and adjust print quality, color measurement, and perform clean-up functions.Students completing this course will be able to: * Demonstrate safe work habits in press operations
* Mix fountain solutions using appropriate ratios.
* Demonstrate paper problems that can occur
* Perform make-ready steps for paper: sheet size, impression cylinder pressure
* Print a single-color one-sided job using a metal or polyester plate.
* Print a two-sided job with color bars and explain why color bars are used.
* Print a multi-colored two sided job.
* Print heavy solid work, making needed adjustments to improve quality.
* Perform roller care and maintenance of inking an dampening systems
* Demonstrate proper wash-up techniques for inking system, dampening system, and cylinders.
* Estimate sheetfed production costs for a small offset press.

**End of Course Assessment**Check the assessment instruments that will be used to document student attainment of the course knowledge and skills.[ ]  Teacher-designed end-of-course assessment[ ]  School system-designed end-of-course assessment[ ]  Partner-developed exam: (specify)      [ ]  Licensing exam: (specify)      [x]  Certification or credentialing exam: (specify) (PrintED end of course exam in Offset Press /Binding and Finishing) [x]  Nationally recognized examination: (specify) PrintED end of course exam in Offset Press /Binding and Finishing)  |
| **Course Title: Digital Production Printing****Course description:** Students master 36 competencies in digital production printing that are designed teach concepts and competencies that ensure that the student is able to operate any vendor's digital press. Students will understand apply the digital workflow concepts to print production. The competencies range from introductory skills such as describing the types of jobs that use a digital press to more advanced skills such as printing two and four color jobs, printing and finishing a perfect-bound booklet and printing a variable data print job.Students completing this course will be able to: * Compare digital printing to offset printing by comparing and contrasting the advantage and disadvantages of each.
* Define a Raster Image Processer and describe its functionality and significance in the digital printing workflow.
* Estimate production costs for a digital press.
* Explain the importance of proper environmental conditions required for digital printing
* Print a black and white or process color job on coated paper
* Print and finish a saddle stitched booklet
* Create, print and finish a variable data printing job

**End of Course Assessment**Check the assessment instruments that will be used to document student attainment of the course knowledge and skills.[x]  Teacher-designed end-of-course assessment: Students must master 80% of the PrintED competencies. [ ]  School system-designed end-of-course assessment[ ]  Partner-developed exam: (specify)      [ ]  Licensing exam: (specify)      [ ]  Certification or credentialing exam: (specify) (PrintED end of course exam to be developed) [ ]  Nationally recognized examination: (specify)       |
| **Course Title: Advertising and Design**Course Description: Students demonstrate knowledge in 45 competencies in advertising and design. The competencies address copyright, ethics and intellectual property rights; creating a digital portfolio, typefaces, page layout, image capture, digital illustration and design principles, and corporate branding. Students demonstrate an understanding of additive and subtractive color, design a logo, create an illustration, and pitch an advertising concept. Students completing this course will be able to: * Identify the basic principles of design
* Prepare a series of hand drawn sketches or computer generated layouts incorporating appropriate marks
* Create multiple page documents using text blocks, graphics, frames and headings using drop caps
* Design and produce a document using desired fonts, styles, margins, indents, tabs and colors
* Repurpose files for a print project for use in webs design and demonstrate file formats for web development
* Demonstrate various USPS design constraints and provide resources for more information on requirements
* Scale a raster image using the proper settings to maintain appropriate resolution for print or web

**End of Course Assessment**Check the assessment instruments that will be used to document student attainment of the course knowledge and skills.[ ]  Teacher-designed end-of-course assessment: Students must master 80% of the PrintED competencies. [ ]  School system-designed end-of-course assessment[ ]  Partner-developed exam: (specify)      [ ]  Licensing exam: (specify)      [ ]  Certification or credentialing exam: (specify)       [x]  Nationally recognized examination: (specify) PrintED/Skills USA Skill Connect Assessment in Advertising and Design       |
| **Course Title: Binding and Finishing****Course Description:** Students master 57 competencies to learn about the equipment, materials and procedures for folding, cutting, stitching, adhesive binding, case binding, foil stamping coating and laminating and spiral and wire binding. Students demonstrate the use of folding equipment to make different folds and perform preventative maintenance on folders and cutters. They demonstrate knowledge of paper types as well as the tools and procedures for quality control. Students identify and solve common bindery and finishing problems.Students completing this course will be able to:* Demonstrate a working knowledge of pagination
* Produce correctly made pads of paper
* Demonstrate the use of folding equipment to produce an accordion fold job
* Demonstrate the use of folding equipment to slit, perforate, fold and score
* Make accurate paper cuts using a mechanized paper cutter.
* Demonstrate the fundamentals a d applications of saddle stitching and perfect binding
* Identify packaging and shrink wrap equipment and materials
* Estimate the cost of materials and production for performing various bindery operations
* Identify common production problems in the bindery
* Demonstrate and perform preventative maintenance on a paper cutter and on a folder.
* Demonstrate and properly use folding equipment to produce a high-folio lip signature and a low-folio lip signature describe the advantages of both.

**End of Course Assessment**Check the assessment instruments that will be used to document student attainment of the course knowledge and skills.[x]  Teacher-designed end-of-course assessment: Students must master 80% of the PrintED competencies. [ ]  School system-designed end-of-course assessment[ ]  Partner-developed exam: (specify)      [ ]  Licensing exam: (specify)      [ ]  Certification or credentialing exam: (specify) (PrintED end of course exam in Offset Press /Binding and Finishing) [ ]  Nationally recognized examination: (specify) PrintED end of course exam in Offset Press /Binding and Finishing)  |
| **Course Title: Advanced Graphic Communications** Course Description: This course has three components: Advanced File Preparation, Advanced Printing Procedures and Advanced Page Imposition. Projects may be substituted for course content and senior projects to keep pace with changing industry standards as advised by the Printing and Graphics Association MidAtlantic. They will print, fold, saddle staple and trim the document and print, fold and GBC bind the children’s booklet.Students completing this course will:* Learn how to produce PDF files to preflight files for printing,
* Edit digital photographs,
* Process Color print and print projects in the CMYK format,
* Demonstrate press operations, including printing on glossy paper using a powder attachment on the press,
* Print four color projects on a one color press to learn about dot registration;
* Complete two senior projects: a full 64-page document on tabloid size paper and a 16 page children’s book on letter size paper,
* Produce a functioning portfolio of their work with at least 15 good mounted projects from their class work, and a PowerPoint Presentation of their cumulative work.

**End of Course Assessment**Check the assessment instruments that will be used to document student attainment of the course knowledge and skills.[x]  Teacher-designed end-of-course assessment [ ]  School system-designed end-of-course assessment[ ]  Partner-developed exam: (specify)      [ ]  Licensing exam: (specify)      [ ]  Certification or credentialing exam: (specify)      [ ]  Nationally recognized examination: (specify)       |

STEP 2C: END-OF-PROGRAM ASSESSMENT - Check the assessment instruments that will be used to document student attainment of the program knowledge and skills. Include and identify assessments leading to industry recognized credentials if available and appropriate.

[x]  Teacher-designed end-of-program assessment

[ ]  School system-designed end-of-program assessment

[ ]  Partner-developed exam: (specify)

[ ]  Licensing exam: (specify)

[ ]  Certification or credentialing exam: (specify)

[ ]  Nationally recognized examination: (specify)

**STEP 2D: Program Sequence Matrix (Include the program sequences for High School, Associate’s Degree, and Bachelor’s Degree programs)**

Identify the pathway options. Complete the program matrix for the 9-12 program, plus, for Tech Prep programs include the matrix for the two- or four-year college program of study. Indicate which courses receive CTE credit by placing the number of credits in parentheses after each CTE course title. Place an asterisk (\*) next to the course identified as the concentrator course indicating that the student has completed 50% of the program.

The program matrix defines a planned, sequential program of study that consists of a minimum of four credits in CTE coursework including work-based learning and/or industry-mentored projects. Work-based learning experiences or industry-mentored projects must be included in the program to obtain approval. The program matrix includes the recommended academic and CTE courses identified for the pathway and postsecondary linkages (i.e., dual enrollment, Tech Prep, transcripted and articulated credit).

CTE programs typically begin after ninth grade and do not include career exploration courses. Courses such as computer applications and keyboarding are not included in the completer sequence because they provide prerequisite skills for both academic courses and CTE programs. Academic courses are counted only if they are tailored to serve mainly CTE students and have been revised to reflect industry skill standards. Technology Education or Advanced Technology Education courses are not acceptable for credit in the career and technology education program sequence.

|  |
| --- |
| **The LSS program title should be the same one that appears on the cover page. If more than one pathway option is offered in the program, complete a matrix for each program option (MSDE will insert the CIP number). Example: An Academy of Information Technology program may include options in web design & programming.** |
| **Pathway/Program:** | **PrintED Graphic Communications** | **CIP Number (For MSDE Use)** | **10.0350** |
| **Graduation Requirements** | **Grade 9** | **Grade 10** | **Grade 11** | **Grade 12** |
| English - 4 | English 9 | English 10 | English 11 | English 12 |
| Social Studies - 3 | US Government | World History | US History | Government and Economics |
| Mathematics - 3  | Algebra 1 | Geometry | Algebra 2 | Pre-Calculus |
| Science - 3 | Physical Science | Biology | Chemistry | Physics |
| Physical Education -.5Health Education - .5 | .5 PE | .5 Health |  |  |
| Fine Arts - 1 | .5 Fine Arts | .5 Fine Arts |  |  |
| Technology Education - 1 | Foundations of Technology |  |  |  |
| CTE Completer Program – 4 \*concentrator course |  |  | (*Foundation Course*)Introduction to Graphic Communications (2) | Two credits from the following accreditation areas:\*Digital File Preparation (1) **or** \*Advertising and Design (1) **or** \*Digital File Output (1) **or** \*Digital Production Printing (1) **or** \*Offset Press Operations (1) **or \***Binding and Finishing (1) **or** \*Advertising and Design (1) or Advanced Graphics and Printing (1) |
| Foreign Language - 2 and/orAdvanced Tech Ed - 2 | Foreign Language | Foreign Language | Advanced Technology Education | Advanced Technology Education |
| **Provide a list of examples of careers students are preparing to enter and postsecondary options:** Careers: Graphic Designer, Print and Digital Production Supervisor, Press Operator, Customer Service Representative, Estimator, Salesperson, Electronic Prepress Manager, Desktop Publishing Specialist, Digital Photo Technician. Postsecondary: Associates Degree in Art, Graphic Design, or in Computer Publishing/Printing Management. Bachelors of Science in Printing Management.  |
| **Two Year College Program Sequence – Program Overview****Many local school systems provide postsecondary matrices in their program of study guides to inform students, parents, and counselors of the opportunities available to those enrolled in the program. Section 2E must be completed before an articulated CTE program of study can be approved. *A copy of the Articulation Agreement is also required to be submitted with the proposal prior to program approval.*****Describe the program to be developed in detail based on what students are expected to know and be able to demonstrate as a result of participating in the program.** |
| **Program Title: Digital Design and Print Communications (A.S. Degree)****College/Institution: Bridgemont Community and Technical College** |
| **Recommended Sequence – Complete the program matrix for the postsecondary sequence for the articulated CTE program of study. Indicate which courses receive articulated or transcripted credit by PLACING THE NUMBER OF CREDITS IN PARENTHESES after each course title.**  |
| **Semester 1** | **Semester 2** |
| Course # | Course Title | Credit | Course # | Course Title | Credit |
| GNST 100**DDPC 111**DDPC 112**DDPC 113** **DDPC 115****DDPC 116**DDPC 125**DDPC 126****DDPC 128**ENGL 101  | Freshman Seminar **(Intro to Graphic Communications)**Paper & Ink **(Introduction to Graphic Design)****(Text and Type)****(InDesign)**Digital Photography**(Electronic Image Capture)****(Adobe Dreamweaver)**English Composition (GEC 1) | 0**3**3**1****1****1**1**1****1**3 | MATH 110**DDPC 130**DDPC 134DDPC 135 DDPC 136 DDPC 141 **DDPC 142** DDPC 143**DDPC 145** | Technical Math (GEC 2)**(Sheetfed Press )**Adobe Illustrator InDesign II Acrobat/PDF BasicsColor Models and Usage **(Introduction to PhotoShop)**Color Workflow & Management**(Safety & Environmental Issues)**  | 3**3**1111**1**1**2** |
| **Semester 3** | **Semester 4** |
| Course # | Course Title | Credit | Course # | Course Title | Credit |
| DDPC 215DDPC 218 ENGL 102 LAB SCIPSYC 101 | Webfed Press Adobe Creative Suite ProjectsEnglish Composition II (GEC 1)Lab Science Elective (GEC 2)Introduction to Psychology (GEC 3) | 33343 | DDPC 231DDPC 232DDPC 242 DDPC 299DDPCHIST  | Flexography Packaging Design Basics of Printing ManagementSpecial TopicsPrint Specialization\*\*World Civilization (179 or 180)\*(GEC 4) | 3321-333 |
| **Provide a list of career options for students who complete the program:** * Graphic Designer
* Graphic Arts Computer/Software Specialist
* Digital Pre-Press Operator
* Desktop Publisher
* Sheetfed Press Operator
* Webfed Press Operator
* Screen Press Operator
* Flexographic Press Operator
* Bindery and finishing operator
* First line supervisor
 |

|  |
| --- |
| **Four Year College Program Sequence – Program Overview****Complete this matrix if the program includes a four year degree option****Many local school systems provide postsecondary matrices in their program of study guides to inform students, parents, and counselors of the opportunities available to those enrolled in the program. Section 2E must be completed before an articulated CTE program of study can be approved. *A copy of the Articulation Agreement is also required to be submitted with the proposal prior to program approval.*****Describe the program to be developed in detail based on what students are expected to know and be able to demonstrate as a result of participating in the program.** |
| **Program Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_****College/Institution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| **Recommended Sequence – Complete the program matrix for the postsecondary sequence for the articulated CTE program of study. Indicate which courses receive articulated or transcripted credit by PLACING THE NUMBER OF CREDITS IN PARENTHESES after each course title.**  |
| **Semester 1** | **Semester 2** |
|  |  |
| **Semester 3** | **Semester 4** |
|  |  |
| **Provide a list of career options for students who complete the program:**  |

**STEP 2E: VALUE-ADDED OPTIONS** – Fill in the name of the partnering college or agency. Specify the credential that students will earn. Under value-added, indicate the number of credits or hours granted. This information is required before a program can be designated as a CTE articulated program of study.

|  |  |  |  |
| --- | --- | --- | --- |
| **Option** | **Partner** | **Credential** | **Value added for CTE completers** |
| Dual Enrollment |  |  |  |
| Transcripted Credit |  |  |  |
| Articulated Credit | Bridgemont Community and Technical College, West Virginia, **statewide articulation agreement**  | A.S. in Digital Design and Print Communication  | Up to 16 articulated credits |
| Credit by Exam |  |  |  |
| Advanced Placement |  |  |  |
| Apprenticeship Approved by MATC\* |  |  |  |
| Certification(s) | [PrintEd](http://www.gaerf.org/) | Introduction to Graphic Communications; Digital File Preparation; Press Operations, etc. | National Industry Recognized Certifications & Equivalent of six months on-the-job experience |
| License |  |  |  |
| Degree |  |  |  |
| Other (specify) |  |  |  |

\*MD Apprenticeship and Training Council

**STEP 2F: INDUSTRY-MENTORED PROJECT OR WORK-BASED LEARNING OPPORTUNITIES**Check each box that applies.

PAC members and other industry partners provide supervised (WBL) experiences and/or industry-mentored projects for all students who demonstrate performance of the competencies necessary to enter into this phase of the program. Supervised work-based learning experiences are required for all students demonstrating readiness to participate. For the few who do not participate, alternative capstone experiences should be provided (i.e., in school work experiences, a culminating project, or another experience comparable in rigor). Each type of work-based learning is defined in the glossary. Job shadowing is **not** acceptable for credit in a CTE program.

1. [ ]  Integrated WBL 2. [x]  Capstone WBL 3. [ ]  Registered Apprenticeship
4. [ ]  Internship 5. [ ]  Industry-Mentored Project 6. [ ]  In-school clinic or school-based enterprise

**STEP 2G: STUDENT ORGANIZATIONS PROVIDED TO STUDENTS IN THE PROGRAM**

Check each box that applies or specify if “Other” is selected.

Students will develop and apply technical and academic skills, as well as Skills for Success, through participation in:

[ ]  DECA [ ]  FFA [x]  SkillsUSA [ ]  FBLA [ ]  HOSA

[ ]  OTHER (specify)

**STEP 3: COMPLETE THE INSTRUCTIONAL PROGRAM DATA SHEET**

|  |  |
| --- | --- |
| Local School System (LSS) and Code: |  |
| Name of CTE local director: |  | Phone: |  |
| LSS Program Title: |  | CIP Code: | **10.0350** |

*STEP 3.1 – DATA SHEET: PATHWAY OPTIONS*

|  |  |
| --- | --- |
| **1.** | **Graphic Communications** |
| **2.** |  |
| **3.** |  |
| **4.** |  |

*STEP 3.2 – DATA SHEET: INSTRUCTIONAL PROGRAM CREDIT BY GRADE(S)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Credits per year per pathway option as reflected by Course Sequences** | **9** | **10** | **11** | **12** | **TOTAL** |
| 1. **Graphic Communications**
 |  |  | **2** | **2** | **4** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Total number of credits for program completion: 4**

*STEP 3.3 – DATA SHEET: CAREER AND TECHNOLOGY EDUCATION PROGRAM SITES*

|  |  |  |
| --- | --- | --- |
| **Pathway Options** | **School Name(s) Sites** | **School Number** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |