*Department of Teaching & Learning*
*Parent/Student Course Information*

*Communications Technology Program*
*Photography and Printing*
*(TE 8415)*
*Grades 9 - 12*
*One-half Credit, One Semester*

Counselors are available to assist parents and students with course selections and career planning. Parents may arrange to meet with the counselor by calling the school's guidance department.

## COURSE DESCRIPTION

The courses in engineering and technology provide opportunities for students to acquire skills and knowledge necessary for technological literacy, entry-level careers, and lifelong learning. Students learn Virginia's 22 Workplace Readiness Skills within the content area. Those who are completing a two-year sequence have the opportunity to verify their knowledge of the workplace readiness skills through an industry assessment. Students in this course study the history, processes and skills used in black and white photography and photo screen printing. Activities emphasize the use of the 35mm camera, digital photography, editing software, studio lighting, film development, and screen printing. Additional photographic printing processes may be explored. This course is designed with project based experiences for students who are interested in careers in publishing, photography, multi-media communications and advertising.

## CERTIFICATION

Students successfully completing the Communications Technology Program of Study will be preparing for the Adobe Cloud Photoshop CS6 or Lightroom certification and the NOCTI Digital Design Industry Credential.

## STUDENT ORGANIZATION

Technology Student Association (TSA) is a co-curricular organization for all students enrolled in engineering and technology courses. Students are encouraged to be active members of their youth organization to develop leadership and teamwork skills and to receive recognition for their participation in local, regional, state and national activities.

## PREREQUISITE

None

## OPTIONS FOR NEXT COURSE

Communications Technology

## REQUIRED STUDENT TEXTBOOK

*Exploring Photography 6th edition*

# COMPETENCIES FOR PHOTOGRAPHY AND PRINTING

**Demonstrating Workplace Readiness Skills: Personal Qualities and Abilities**
1    Demonstrate creativity and innovation.
2    Demonstrate critical thinking and problem solving.
3    Demonstrate initiative and self-direction.
4    Demonstrate integrity.
5    Demonstrate work ethic.

**Demonstrating Workplace Readiness Skills: Interpersonal Skills**
6    Demonstrate conflict-resolution skills.
7    Demonstrate listening and speaking skills.
8    Demonstrate respect for diversity.
9    Demonstrate customer service skills.
10    Collaborate with team members.

**Demonstrating Workplace Readiness Skills: Professional Competencies**
11    Demonstrate big-picture thinking.
12    Demonstrate career- and life-management skills.
13    Demonstrate continuous learning and adaptability.
14    Manage time and resources.
15    Demonstrate information-literacy skills.
16    Demonstrate an understanding of information security.
17    Maintain working knowledge of current information-technology (IT) systems.
18    Demonstrate proficiency with technologies, tools, and machines common to a specific occupation.
19    Apply mathematical skills to job-specific tasks.
20    Demonstrate professionalism.
21    Demonstrate reading and writing skills.
22    Demonstrate workplace safety

**Examining All Aspects of an Industry**
23    Examine aspects of planning within an industry/organization.
24    Examine aspects of management within an industry/organization.
25    Examine aspects of financial responsibility within an industry/organization.
26    Examine technical and production skills required of workers within an industry/organization.
27    Examine principles of technology that underlie an industry/organization.
28    Examine labor issues related to an industry/organization.
29    Examine community issues related to an industry/organization.
30    Examine health, safety and environmental issues related to an industry/organization.

**Addressing Elements of Student Life**
31    Identify the purposes and goals of the student organization.
32    Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.
33    Demonstrate leadership skills through participation in student organization activities, such as meetings, programs and projects.
34    Identify Internet safety issues and procedures for complying with acceptable use standards.

**Exploring Work-Based Learning**
35      Identify the types of work-based learning (WBL) opportunities.
36      Reflect on lessons learned during the WBL experience.
37      Explore career opportunities related to the WBL experience.
38      Participate in a WBL experience, when appropriate.

**Introducing Imaging Technology**
39      Explain the term imaging technology.
40      Research the history and development of imaging technology.
41      Describe three-dimensional (3D) imaging, such as VR and medical imaging.
42      Create a device that can project a simple hologram.
43      Rotate 3D images on a computer screen.
44      Outline a brief history of photographic technology.

**Exploring Ethics and Laws in Imaging Technology**
45      Explore ethical issues related to imaging technology.
46      Explore legal issues related to imaging technology.

**Exploring Medical Imaging**
47      Explain the differences among types of medical imaging.
48      Examine radiographs (e.g., X-rays) to determine limits of an abnormality.
49      Examine MRI images.
50      Examine CT images.
51      Examine ultrasound images.

**Examining Photographic Imaging**
52      Define the term photography.
53      Identify camera types and parts.
54      Examine the characteristics and uses of various lenses.
55      Examine genres of photography.

**Planning Images**
56      Propose an image.
57      Plan an image production schedule.
58      Define composition and its components.

**Capturing Images**
59      Capture an image using the rule of thirds.
60      Produce an image using balance.
61      Compose a photograph that demonstrates rhythm in environment.
62      Demonstrate depth of field.
63      Use the shutter to control motion.
64      Produce photographic images using various techniques.
65      Use natural lighting to create a properly exposed image.
66      Use artificial lighting to create a properly exposed image.
67      Use lighting techniques to create a dramatic effect on a photographic image.

**Working in the Darkroom**
68      Demonstrate safety and environmentally friendly practices in the darkroom.

69      Demonstrate the handling and care of equipment in the darkroom.
70      Examine the physical and chemical properties of film and paper.

## Exploring Post-Production Processes
71      Manage digital images, using software.
72      Enhance digital images, using software.
73      Scan an image from a photograph.
74      Transfer photos.
75      Manipulate an image.
76      Present images.
77      Maintain a portfolio of photographic images.
78      Critique student photographs.

## Examining 3D Imaging
79      Explain x, y, and z coordinate planes.
80      Create 3D geometric objects.
81      Use parametric modeling software.
82      Examine VR.
83      Generate VR background and objects.
84      Generate first-person viewpoint actions in VR.

## Exploring Careers in Imaging
85      Evaluate the work of a published or professional photographer.
86      Explore careers in imaging technology.
87      Research the integration of imaging technology in various industries.

### Notice of Non-Discrimination Policy

Virginia Beach City Public Schools does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation/gender identity, pregnancy, childbirth or related medical condition, disability, marital status, age, genetic information or veteran status in its programs, activities, employment, or enrollment, and provides equal access to the Boy Scouts and other designated youth groups. School Board policies and regulations (including, but not limited to, Policies 2-33, 4-4, 5-7, 5-19, 5-20, 5-44, 6-33, 6-7, 7-48, 7-49, 7-57 and Regulations 4-4.1, 4-4.2, 5-44.1, 7-11.1, 7-17.1 and 7-57.1) provide equal access to courses, programs, enrollment, counseling services, physical education and athletic, vocational education, instructional materials, extracurricular activities and employment.

Title IX Notice: Complaints or concerns regarding discrimination on the basis of sex or sexual harassment should be addressed to the Title IX Coordinator, at the VBCPS Office of Student Leadership, 641 Carriage Hill Road, Suite 200, Virginia Beach, 23452, (757) 263-2020, Mary.Dees@vbschools.com (student complaints) or the VBCPS Department of School Leadership, 2512 George Mason Drive, Municipal Center, Building 6, Virginia Beach, Virginia, 23456 (757) 263-1088, Elizabeth.Bryant@vbschools.com (employee complaints). Additional information regarding Virginia Beach City Public Schools' policies regarding discrimination on the basis of sex and sexual harassment, as well as the procedures for filing a formal complaint and related grievance processes, can be found in School Board Policy 5-44 and School Board Regulations 5-44.1 (students), School Board Policy 4-4 and School Board Regulation 4-4.3 (employees), and on the School Division's website at Diversity, Equity and Inclusion/Title IX. Concerns about the application of Section 504 of the Rehabilitation Act should be addressed to the Section 504 Coordinator/Executive Director of Student Support Services at (757) 263-1980, 2512 George Mason Drive, Virginia Beach, Virginia, 23456 or the Section 504 Coordinator at the student's school. For students who are eligible or suspected of being eligible for special education or related services under IDEA, please contact the Office of Programs for Exceptional Children at (757) 263-2400, Plaza Annex/Family and Community Engagement Center, 641 Carriage Hill Road, Suite 200, Virginia Beach, VA 23452.

The School Division is committed to providing educational environments that are free of discrimination, harassment, and bullying. Students, staff, parents/guardians who have concerns about discrimination, harassment, or bullying should contact the school administration at their school.  Promptly reporting concerns will allow the school to take appropriate actions to investigate and resolve issues. School Board Policy 5-7 addresses non-discrimination and anti-harassment, Policy 5-44 addresses sexual harassment and discrimination based on sex or gender. Policy 5-36 and its supporting regulations address other forms of harassment.

Alternative formats of this publication which may include taped, Braille, or large print materials are available upon request for individuals with disabilities. Call or write The Department of Teaching and Learning, Virginia Beach City Public Schools, 2512 George Mason Drive, P.O. Box 6038, Virginia Beach, VA 23456-0038. Telephone 263-1070 (voice); fax 263-1424; 263-1240 (TDD) or email at Charles.Hurd@vbschools.com.

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