

Computer Technology—Advanced* **Note:** Advanced Standards assume completion of basics.



Course Focus (Apply the following for each advanced option.)

CPTR.1 Identify the principles of SDA Christian values in correlation with computer technology.

- CPTR.1.1 Recognize God's purpose in the dynamics of computer technology.
- CPTR.1.2 Explore God's role in the social, economic, and spiritual areas of a technological society.
- CPTR.1.3 Apply biblical principles of SDA Christian morality, integrity, and ethical behavior to all aspects of life.
- CPTR.1.4 Develop an SDA Christian approach toward technological issues.

Course Abilities (Apply the following to each advanced option.)

CPTR.2 Develop abilities in computer technology.

- CPTR.2.1 Critical and creative thinking skills (research, analysis, evaluation).
- CPTR.2.2 Cooperative learning (project-based activities).
- CPTR.2.3 Self-management skills (individual responsibility, self-worth, sociability, etc.).
- CPTR.2.4 Effective communication skills (speaking, writing, listening, using technology, etc.).
- CPTR.2.5 Discernment skills (personal, recreational, time management, etc.).

CPTR.3 Be able to apply ethically the knowledge and skills of computer technology.

- CPTR.3.1 Read, research, analyze, write, and present using technological resources.
- CPTR.3.2 Identify concepts, capabilities, and limitations of technology.
- CPTR.3.3 Demonstrate ability to apply technological concepts with integrity.
- CPTR.3.4 Assess personal applications and potential career opportunities.
- CPTR.3.5 Evaluate and apply media discernment skills (websites, games, music, etc.).

Advanced Options: Web Design, Programming, Graphic Design, Networking/Repair, Digital Photography/Videography

CPTR.4 Be able to produce a website.

- CPTR.4.1 Identify key terms and concepts (HTML, JPEG, SQL, etc.).
- CPTR.4.2 Design and develop a website using an HTML editor (Dreamweaver, FrontPage, etc.).
- CPTR.4.3 Create forms, tables, hyperlinks, etc.
- CPTR.4.4 Publish web pages to a web server.

CPTR.5 Be able to write a computer program.

- CPTR.5.1 Describe programming languages (Visual Basic, Visual C++, Java, etc.).
- CPTR.5.2 Identify key terms and concepts (variables, loops, functions, etc.).
- CPTR.5.3 Write, compile, run, and debug a properly coded program.

CPTR.6 Be able to apply graphic design principles to a variety of publications.

- CPTR.6.1 Identify graphic design principles (contrast, alignment, repetition, proximity).
- CPTR.6.2 Design page layout using graphic design principles.
- CPTR.6.3 Select an appropriate software program (Photoshop, CorelDraw, Publisher, etc.).
- CPTR.6.4 Create designs for a variety of purposes (brochures, certificates, banners, posters, etc.).

CPTR.7 Be able to manage and troubleshoot technological and network devices.

- CPTR.7.1 Identify the fundamental principles of various technological and network devices.
- CPTR.7.2 Install and configure various technological and network devices (Windows, hard drive, router, etc.).
- CPTR.7.3 Secure, optimize, and upgrade various technological and network devices (wired/wireless, modems, authentication technologies, etc.).
- CPTR.7.4 Prevent and diagnose common technical problems (power supply, CPU fan, hard drive failure, etc.).
- CPTR.7.5 Apply safety principles and environmental protection practices.

CPTR.8 Be able to create digital photographs and/or video productions.

- CPTR.8.1 Identify key terms and concepts (perspective, lighting, depth of field, etc.).
- CPTR.8.2 Frame object and/or formalize a storyboard and script.
- CPTR.8.3 Determine appropriate equipment and setup (camera, lighting, audio, positioning, etc.).
- CPTR.8.4 Capture images using appropriate hardware and software.
- CPTR.8.5 Edit and produce final projects.