

Glendale Unified School District

Senior High School

June 17, 2014

Department: CTE
Course Title: Applied Technology 1-2 (GenYes)
Course Number: 5140/5141
Grade Level: 9-12
Semester Credits: 10
Recommended Prerequisite: Teacher Recommendation
Recommended Textbook: Generation Yes Online Curriculum

Course Description: Students learn cutting edge technologies and collaborate directly with teachers to implement 21st century skills into the classroom, developing skills related to computer technologies, concepts, and terminology. Students learn the functions of computers in education, business, and society, exploring and considering computer-related issues such as ethical solutions, social networking, and media sharing. Students will use word processing, spreadsheet, database, and presentation software in hands-on experiences include exploring Web 2.0, diverse operating systems, and emerging technologies for potential classroom implementation. While working with teachers as mentors, students will troubleshoot computer problems in hardware and software in general computer usage.

I. Standards

A. Common Core State Standard - Technology Integration

1. ELA Writing.9-10/11-12. 2a: Introduce a topic or thesis statement; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting, graphics, and multimedia when useful to aiding comprehension.
2. ELA Writing.9-10/11-12. 6: Use technology, including the Internet, to produce, publish, and update individual or shared writing products, in

response to ongoing feedback, including new arguments or information. Taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

3. ELA Writing.9-10/11-12. 8: Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation including footnotes and endnotes.
4. ELA Speaking and Listening.9-10/11-12. 2
 - a. Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluate the credibility and accuracy of each source and noting any discrepancies among the data.
5. ELA Speaking and Listening.9-10/11-12. 5
 - a. Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
6. Literacy in History/Social Studies, Science, and Technical Subjects: Reading Standards for Literacy in History/Social Science.9-10/11-12. 7
 - a. Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
7. Literacy in History/Social Studies, Science, and Technical Subjects: Reading Standards for Literacy in History/Social Science.9-10/11-12. 8
 - a. Assess the extent to which the reasoning and evidence in a text support the author's claims. Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.

B. 21st Century Student Outcomes – Information, Media and Technology Skills

1. Information Literacy

a. Access and Evaluate Information

- (1) Access information efficiently (time) and effectively (sources).
- (2) Evaluate information critically and competently.

b. Use and Manage Information

- (1) Use information accurately and creatively for the issue or problem at hand.
- (2) Manage the flow of information from a wide variety of sources.
- (3) Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information.

2. Media Literacy

a. Analyze Media

- (1) Understand both how and why media messages are constructed, and for what purposes.
- (2) Examine how individuals interpret messages differently, how values and points of view are included or excluded, and how media can influence beliefs and behaviors.
- (3) Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of media.

b. Create Media Products

- (1) Understand and utilize the most appropriate media creation tools, characteristics and conventions .

- (2) Understand and effectively utilize the most appropriate expressions and interpretations in diverse, multi-cultural environments.
 - C. 21st Century Student Outcomes - ICT (Information, Communications and Technology) Literacy
 1. Apply Technology Effectively
 - a. Use technology as a tool to research, organize, evaluate and communicate information.
 - b. Use digital technologies (computers, PDAs, media players, GPS, etc.), communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy.
 - c. Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies.
 - D. National Education Technology Standards (NETS) For Students
 1. Creativity and Innovation - MAKE IT
 2. Communication and Collaboration - SHARE IT
 3. Research and Information Fluency - FIND IT
 4. Critical Thinking, Problem Solving, and Decision Making - SOLVE IT
 5. Digital Citizenship - PROTECT IT
 6. Technology Operations and Concepts - USE IT
- II. Sample Assessments
 - A. Technology Assistance Projects
 - B. Performance Task Rubrics
 - C. GenYes Website Student Evaluation Tools
- III. Topic of Study - Suggested Time Distribution

A. GenYes Basics

1. Getting Started with GenYES. 3 Weeks

The activities in this unit introduce students to the GenYES program. They cover using the GenYES tools, working and collaborating with teachers, and planning projects that will have real impact on technology integration school-wide . The activities help establish the fundamental student-centered philosophy of GenYES, and build Student Tech Leader (STL) skills not just as tech experts, but also as leaders. Expansion activities are included for differentiation.

2. GenYES in Action 3 Weeks

Once GenYES students start to understand their roles and responsibilities, they can prepare for the next stage of GenYES, working with a partner-teacher on Technology Assistance Project (TAPs). These activities prepare students to prepare for their first TAP, work in collaboration with the teacher, create and implement a TAP, share their work with other GenYES students, and finally deliver the TAP to their teacher-partner.

3. Online Research and Information Literacy 2.5 Weeks

This unit will give GenYES students the understanding and skills to locate, authenticate, evaluate, and use web-based information and resources effectively and efficiently. These information literacy skills often play a crucial role in determining the overall value and success of a TAP.

4. Cyber Safety and Digital Citizenship 2.5 Weeks

This unit tackles the major safety issues that accompany online communications. Just as children learn to look both ways before they cross the street on their own, students need to internalize the common-sense safety guidelines of the digital world. The activities in this unit cover personal safety, financial fraud, and computer security, helping students understand the reasons behind online safety rules and preparing them to promote safe, responsible digital citizenship to their peers. In the culminating activity, students create a webpage to educate others about how understanding online safety makes using the Web easier and more effective.

5. Online Tools 2 Weeks

This unit introduces students to the range of electronic communications tools commonly used in schools. It covers safety issues associated with online communications, as well as examples of and suggestions for TAPs involving tele-collaborative learning.

B. 21st Century Issues

1. Communication Skills 2.5 Weeks

This unit expands on the concepts of communication, collaboration and teamwork that are central to GenYES. Students practice written and oral communication strategies to use when working with teachers or other students. In addition, this unit addresses the importance of communication in leadership and teamwork, focusing on consensus-building and constructive feedback techniques.

2. Media Literacy 3 Weeks

The revolution in information and communication technology has created a world where everyone is constantly surrounded by media. K-12 students on average spend over six hours consuming media every day, from television talk shows to magazine ads to Wikipedia. This unit gives students a chance to reflect critically on their media consumption and develop the skills to analyze and critique information for accuracy, reliability, and bias.

C. Technology Skills

1. Digital Media 3 Weeks

Most of today's students have spent their entire lives surrounded by computers, video games, digital music players, digital cameras, video cameras, and all of the other toys and tools of the digital age. Computer games, the Internet, tablets, cell phones, satellite radio, podcasting, and video blogging are integral parts of the lives of this generation. This unit will familiarize students with the tools available in your school for creating and sharing original digital media projects, leveraging this multimedia fluency for educational purposes.

D. Technology Support

1. Hardware 2.5 Weeks

This unit provides an introduction to computer hardware, providing hands-on experience assembling and disassembling computers. Students build good troubleshooting and repair skills by gaining an understanding of the functions of computer parts and how they relate to one another.
2. Software 2 Weeks

Understanding how software works is the basis for understanding how software breaks. Many tech support tasks involve software applications that don't work. This unit gives students a basic understanding of software, from bits and bytes to operating systems and applications. This understanding will help students grasp how software interacts with computer hardware, peripherals, and the user.
3. Tech Support: Problem Solving and Customer Service 2.5 Weeks

This unit introduces the TAP as a tech support help desk tool. Students learn a structured interview process to follow as the first step to solving a technical problem, and practice organizing their thinking, documenting their tech support actions, and providing good customer service.
4. Housekeeping/Maintenance 3 Weeks

While keeping dust out of a hard drive is hardly glamorous work, there is a lot of satisfaction in knowing that your school's computers are in top shape. Computer maintenance tasks give students familiarity with your school's technology resources and create a sense of pride and ownership in the smallest details of the equipment. Maintenance tasks are also good routine TAPs for beginning tech support students.
5. TAPs (Technology Assistance Projects) 10 Weeks
 - a. Planning Leadership Projects

Now that students know how the TAP tool works, they are ready to learn how TAPs help teachers and other adults in their school. Collaboration between students and teachers is key to the GenYES process and students need to understand their responsibilities as co-partners in the model. In this activity, students discuss interpersonal skills and critique the student-teacher interactions in a role-play exercise. As with any tool, there are effective and

ineffective ways to use technology to enhance learning. This activity is designed to get students thinking about the ways that they learn best, and how TAPs can help teachers create more engaging and active learning experiences for students. The themes of this discussion should be an ongoing component of your GenYES program as students work on TAPs and continue to think critically about their own learning.