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accessing, researching, and comparing data; and

(E) seek and respond to advice from peers in delineating technological tasks.

(10) **Communication.** The student formats digital information for appropriate and effective communication. The student is expected to:

(A) identify pictorial qualities in a design such as shape and form, space and depth, or pattern and texture to create visual unity and desired effects in designs;

(B) use a variety of lighting techniques including shadows and shading to create an effect;

(C) define the design attributes and requirements of products created for a variety of purposes including posters, billboards, business cards, stationery, book jackets, folders, booklets, pamphlets, brochures, and magazines; and

(D) use proximity and alignment to create a visual connection with other elements.

(11) **Communication.** The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of ways including, but not limited to, printed copy or monitor display; and

(B) publish information in saved files, Internet documents, CD-ROM discs, or video.

(12) **Communication.** The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) determine and employ technology specifications to evaluate projects for design, content delivery, purpose, and audience; and

(B) seek and respond to advice from peers in evaluating the

product.

Source: The provisions of this §126.25 adopted to be effective September 1, 1998, 22 TexReg 5203.

§126.26. Multimedia (One Credit).

(a) General requirements. The prerequisite for this course is proficiency in the knowledge and skills described in §126.12(c) of this title (relating to Technology Applications (Computer Literacy), Grades 6-8). This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) **Foundations.** The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components;

(B) analyze demands for accomplishing multimedia tasks to appropriately use input, processing, output, and primary/secondary storage devices;

(C) make decisions regarding the selection, acquisition, and use of software in a multimedia classroom/lab taking under consideration its quality, appropriateness, effectiveness, and efficiency;

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(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity;

(E) use necessary vocabulary related to multimedia;

(F) install and configure appropriate software;

(G) distinguish between and correctly use process color (RGB and CYMK), spot color, and black/white;

(H) identify color mixing theories and apply these theories to the creation of new colors in the digital format;

(I) identify and distinguish among the basic sound editing principles including the addition of effects and manipulation of the wave form;

(J) identify and use compression schemes for photo, animation, video, and graphics; and

(K) distinguish between and determine the appropriate application of bitmapped and vector graphics into a multimedia project.

(2) **Foundations.** The student uses data input skills appropriate to the task. The student is expected to:

(A) demonstrate proficiency in the use of a variety of electronic input devices including the mouse, keyboard, scanner, voice/sound recorder, disk/disc, video, and digital camera by creating files to be used in multimedia products;

(B) use digital keyboarding standards for data input such as one space after punctuation, the use of em/en dashes, and smart quotation marks;

(C) use strategies when digitally capturing files that conserve memory and retain the image integrity; and

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(D) differentiate among audio input.

(3) **Foundations.** The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet;

(C) model respect of intellectual property when manipulating, morphing, or editing graphics, video, text, and sound; and

(D) provide examples of the role of multimedia in society.

(4) **Information acquisition.** The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use strategies to access research information from different resources, including local area networks (LANs), wide area networks (WANs), the Internet, and intranet; and

(B) apply appropriate electronic search strategies in the acquisition of information including keyword and Boolean search strategies.

(5) **Information acquisition.** The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information in electronic formats including text, audio, video, and graphics, citing the source; and

(B) identify, create, and use available file formats including text, image, video (analog and digital), and audio files.

(6) **Information acquisition.** The student evaluates the acquired electronic information. The student is expected to:

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(A) identify and employ a method to evaluate the design, functionality, and accuracy of the accessed information; and

(B) use fundamental concepts of graphic design including visual composition and lighting when analyzing multimedia.

(7) **Solving problems.** The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use foundation and enrichment curricula in the creation of multimedia products;

(B) select and integrate computer-based productivity tools, including, but not limited to, word processor, database, spreadsheet, telecommunications, draw, paint, and utility programs to develop and modify solutions to problems and to create new knowledge for multimedia products;

(C) use technology tools to create a knowledge base with a broad perspective;

(D) apply color principles to communicate the mood of the product for the specific audience;

(E) integrate path and cell animation modules appropriately into multimedia products;

(F) use the appropriate scripting language to create a multimedia sequence;

(G) edit files using established design principles including consistency, repetition, alignment, proximity, ratio of text to white space, image file size, color use, font size, type, and style; and

(H) read and use technical documentation.

(8) **Solving problems.** The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

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(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor and use technology to participate in self-directed and practical activities in the larger community and society;

(B) demonstrate proficiency in, appropriate use of, and navigation of LANs, WANs, the Internet, and intranet for research and for sharing of resources;

(C) integrate and use efficiently and effectively a variety of multimedia programs and tools including linear/non-linear authoring tools, image/video editing tools, compression programs, draw/paint/text creation tools;

(D) extend the learning environment beyond the school walls through the creation and linking of multimedia products via electronic networks;

(E) develop technical documentation related to multimedia;

(F) participate in different roles and jobs of a multimedia production crew including project manager, lead programmer, writer, art director, sound engineer, researcher, animator, and presenter;

(G) distinguish among and appropriately integrate 3-D modeling, animation, and rendering software into multimedia products;

(H) import video into the digital format for integration into multimedia products; and

(I) capture, record, and integrate sampled and Musical Instrument Digital Interface (MIDI) sound in different sound rates, resolutions, and channels.

(9) **Solving problems.** The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product;

(B) seek and respond to advice from peers and professionals in delineating technological tasks;

(C) create technology specifications for tasks and rubrics to evaluate products and product quality against established criteria; and

(D) resolve information conflicts and validate information by accessing, researching, and comparing data and demonstrate that products and product quality can be evaluated against established criteria.

(10) **Communication.** The student formats digital information for appropriate and effective communication. The student is expected to:

(A) identify quality in multimedia design such as consistency, alignment, repetition, and proximity;

(B) use content selection and presentation for the defined audience and communication purpose; and

(C) format the multimedia project according to defined output specifications including target audience and viewing environment.

(11) **Communication.** The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of ways including, but not limited to, printed copy or monitor display; and

(B) publish information in saved files, Internet documents, CD-ROM discs, or video.

(12) **Communication.** The student uses technology applications to facilitate evaluation of communication, both process and

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product. The student is expected to:

(A) determine and employ technology specifications to evaluate projects for design, content delivery, purpose, and audience; and

(B) seek and respond to input from peers and professionals in evaluating the product.

Source: The provisions of this §126.26 adopted to be effective September 1, 1998, 22 TexReg 5203.

§126.27. Video Technology (One Credit).

(a) General requirements. The prerequisite for this course is proficiency in the knowledge and skills described in §126.12(c) of this title (relating to Technology Applications (Computer Literacy), Grades 6-8). This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) **Foundations.** The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of digital and analog video systems, software applications, and communication and networking components;

(B) compare, contrast, and appropriately use the various input, processing, output, and

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primary/secondary storage devices;

(C) make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency;

(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity;

(E) use vocabulary related to video technology; and

(F) compare and contrast linear and nonlinear editing.

(2) **Foundations.** The student uses data input skills appropriate to the task. The student is expected to:

(A) outline differences among electronic input devices as related to video technology; and

(B) demonstrate proficiency in the use of a variety of electronic input devices including the keyboard, mouse, disk/disc, modem, scanner, voice/sound recorder, and digital video by incorporating such components into the video-related product.

(3) **Foundations.** The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital and video information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet; and

(C) analyze the impact of video technology on society.

(4) **Information acquisition.** The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

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(A) use strategies to access research information from different resources including local area networks (LANs), wide area networks (WANs), the Internet, and intranet; and

(B) construct and use appropriate electronic search strategies in the acquisition of information including keyword and Boolean search strategies.

(5) **Information acquisition.** The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information in electronic formats including text, audio, video, and graphics, citing the source;

(B) engage in preproduction planning by surveying the site and obtaining necessary permits and release forms; and

(C) acquire information from on-line help and other forms of documentation.

(6) **Information acquisition.** The student evaluates the acquired electronic information. The student is expected to:

(A) identify and employ a method to evaluate the information; and

(B) demonstrate skill in testing the accuracy and validity of the information.

(7) **Solving problems.** The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use foundation and enrichment curricula in the development of video and digital products;

(B) integrate productivity tools including, but not limited to, video editor, sound editor, word processor, database, spreadsheet, telecommunications, draw, paint, and utility programs to develop and modify solutions to problems for video productions;

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(C) create video technology products for a variety of purposes and audiences; and

(D) develop technical documentation related to video technology.

(8) **Solving problems.** The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor;

(B) demonstrate proficiency in, appropriate use of, and navigation of LANs and WANs, the Internet, and intranet for research and for sharing of resources;

(C) participate in relevant activities in the larger community and society to create electronic projects;

(D) extend the learning environment beyond the school walls through the creation and sharing of digital and video products via electronic networks;

(E) demonstrate knowledge in composition including ratio of image to frame, position in frame, line of gaze, pan/tilts, movement, and perspective;

(F) demonstrate proficiency in basic camera techniques including zoom, focus, iris control, white balance, and filters;

(G) create visual communication by applying the strategies of script writing;

(H) engage in preproduction activities including storyboarding, script writing, production, contracting, and scheduling;

(I) utilize lighting techniques including key, fill, and backlight, using incident/reflected light, color temperatures, and filter use;

(J) use audio techniques, including

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microphone variances and audio mixers, and edit and integrate digital sounds;

(K) participate in different roles and jobs of a production crew including executive producer, producer, director, engineer, script writer, editor, camera person, presenters, and audio technicians;

(L) apply appropriate post production techniques including editing and creating control and/or time coded tracks, transitions, audio levels, background music, and special sound effects;

(M) apply 2-D and 3-D animation effects to video;

(N) use character generators, fonts, colors, and principles of compositions to create graphic images;

(O) create captions and/or titles for video and graphics;

(P) use different compression techniques, and/or programs; and

(Q) demonstrate knowledge in outputting digital video to analog and analog video to digital.

(9) **Solving problems.** The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product;

(B) seek and respond to advice from peers and professionals in delineating technological tasks;

(C) create technology specifications for tasks and evaluation rubrics;

(D) resolve information conflicts and validate information by accessing, researching, and comparing data; and

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(E) monitor process and product quality using established criteria.

(10) **Communication.** The student formats digital information for appropriate and effective communication. The student is expected to:

(A) use font attributes and color to ensure that products are appropriate for the defined audience and communication purpose;

(B) use white space and graphics to ensure that products are appropriate for the defined audience and communication purpose;

(C) use camera perspective to ensure that products are appropriate for the defined audience and communication purpose; and

(D) use content selection and presentation to ensure that products are appropriate for the defined audience and communication purpose.

(11) **Communication.** The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of ways including, but not limited to, printed copy or monitor display; and

(B) publish information in saved files, Internet documents, CD-ROM discs, or video.

(12) **Communication.** The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) evaluate the project for design, content delivery, purpose, and audience using established criteria;

(B) seek and respond to advice from peers and professionals in evaluating the product; and

(C) research the best method of distribution, number of copies of finished product, and appropriate method for promoting product.

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Source: The provisions of this §126.27 adopted to be effective September 1, 1998, 22 TexReg 5203.

§126.28. Web Mastering (One Credit).

(a) General requirements. The prerequisite for this course is proficiency in the knowledge and skills described in §126.12(c) of this title (relating to Technology Applications (Computer Literacy), Grades 6-8). This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) **Foundations.** The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components;

(B) compare, contrast, and use appropriately the various input, processing, output, and primary/secondary storage devices;

(C) make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency;

(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats

and cross platform connectivity;

(E) use vocabulary related to web mastering and delineate between the Internet and an intranet;

(F) summarize the technical needs of a World Wide Web (WWW) server including Random Access Memory (RAM), hard disk capacity, Central Processing Unit (CPU) speed, methods of connectivity, and appropriate software; and

(G) summarize the development of Internet protocols including, but not limited to, hypertext transfer protocol (http), gopher, file transfer protocol (ftp), telnet, and wide area information system (wais).

(2) **Foundations.** The student uses data input skills appropriate to the task. The student is expected to:

(A) outline differences among a variety of electronic input devices; and

(B) demonstrate proficiency in the use of a variety of electronic input devices such as keyboard, scanner, voice/sound recorder, mouse, touch screen or digital video by incorporating such components while publishing WWW pages.

(3) **Foundations.** The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet; and

(C) analyze the impact of the WWW on society through research, interviews, and personal observation.

(4) **Information acquisition.** The student uses a variety of

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strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use local area networks (LANs) and wide area networks (WANs) including the Internet and intranet in research and resource sharing;

(B) construct appropriate search strategies in the acquisition of information from the Internet including keyword and Boolean search strategies; and

(C) obtain Uniform Resource Locators (URLs) and distinguish among the protocols including hypertext transfer protocol (http), gopher, file transfer protocol (ftp), telnet, and wide area information system (wais).

(5) **Information acquisition.** The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information in electronic formats including text, audio, video, and graphics, citing the source; and

(B) identify, create, and use available file formats including text, image, video (analog and digital), and audio files.

(6) **Information acquisition.** The student evaluates the acquired electronic information. The student is expected to:

(A) determine and employ methods to evaluate the design (for content delivery) and functionality (for navigation and interaction) of WWW pages and compare the method with other established methods;

(B) demonstrate skill in testing the accuracy of information; and

(C) investigate and choose electronic security methods for a web server to protect from unauthorized access and negative intentions.

(7) **Solving problems.** The student uses appropriate computer-based productivity tools to create and modify solutions to

problems. The student is expected to:

(A) use technology tools to create a knowledge base with a broad perspective;

(B) select and integrate appropriate productivity tools including, but not limited to, word processor, database, spreadsheet, telecommunication, draw, paint, and utility programs into the creation of WWW documents;

(C) use foundation and enrichment curricular content in the creation of WWW pages;

(D) create WWW pages using specific authoring tools such as text-based editing programs or graphical-based editing programs;

(E) read, use, and develop technical documentation;

(F) create and edit WWW documents using established design principles including consistency, repetition, alignment, proximity, ratio of text to white space, image file size, color use, font size, type, and style;

(G) demonstrate the ability to control access to the WWW site via password controls and global access/deny controls; and

(H) establish a folder/directory hierarchy for storage of a web page and its related or linked files.

(8) **Solving problems.** The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) demonstrate proficiency in, appropriate use of, and navigation of LANs, WANs, the Internet, and intranet for research and for sharing of resources;

(B) extend teaching and learning in the local environment to the worldwide community through the creation and sharing of WWW documents;

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(C) synthesize and generate new information from data gathered from electronic and telecommunications resources;

(D) create and format WWW documents containing bookmarks of on-line resources and share them electronically;

(E) demonstrate the use of WWW pages, collaborative software, and productivity tools to create products;

(F) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor; and

(G) participate in relevant, meaningful activities in the larger community and society to create electronic projects.

(9) **Solving problems.** The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product;

(B) seek and respond to advice from peers and professionals in delineating technological tasks;

(C) create technology specifications for tasks and evaluation rubrics; and

(D) resolve information conflicts and validate information through accessing, researching, and comparing data.

(10) **Communication.** The student formats digital information for appropriate and effective communication. The student is expected to:

(A) use hypertext linking appropriately when creating WWW pages;

(B) develop interactivity for the web server via scripting additions

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such as Common Gateway Interface (CGI), Java Script, or JAVA; and

(C) demonstrate the ability to conduct secure transactions from the web server to the client.

(11) **Communication.** The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) synthesize and publish information in a variety of ways including, but not limited to, printed copy, monitor display, Internet documents, and video; and

(B) identify and use LANs, WANs, and remote resources to exchange and publish information.

(12) **Communication.** The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) create technology specifications for tasks and evaluation rubrics; and

(B) seek and respond to input from peers and professionals in evaluating the product.

Source: The provisions of this §126.28 adopted to be effective September 1, 1998, 22 TexReg 5203.

§126.29. Independent Study in Technology Applications (One Credit).

(a) General requirements. The prerequisite for this course is completion of a high school technology applications course as identified in this subchapter and permission of the instructor/mentor for Independent Study in Technology Applications. This course may be taken at Grades 10-12.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to

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access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) **Foundations.** The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components;

(B) make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency;

(C) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity; and

(D) use appropriate technology terminology in the independent study course.

(2) **Foundations.** The student uses data input skills appropriate to the task. The student is expected to:

(A) demonstrate proficiency in the use of a variety of electronic input devices including the mouse, keyboard, scanner, voice/sound recorder, disk/disc, video, and digital camera as appropriate; and

(B) use digital keyboarding standards for data input such as one space after punctuation, the use of em/en dashes, and smart quotation marks.

(3) **Foundations.** The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet; and

(C) model respect of intellectual property when manipulating, morphing, or editing graphics, video, text, and sound.

(4) **Information acquisition.** The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use local area networks (LANs) and wide area networks (WANs), including the Internet and intranet, in research and resource sharing;

(B) apply appropriate search strategies in the acquisition of information from the Internet including keyword and Boolean search strategies; and

(C) pose hypotheses/questions related to a selected problem.

(5) **Information acquisition.** The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information using appropriate research strategies and a variety of electronic formats, including text, audio, video, and graphics, citing the source; and

(B) identify, create, and use available file formats including text, image, video (analog and digital), and audio files.

(6) **Information acquisition.** The student evaluates the acquired electronic information. The student is expected to:

(A) identify and employ a method to evaluate the design, functionality, and accuracy of the accessed information; and

(B) analyze information for validity

and relevance in the confirmation, testing, and solution of the hypotheses and questions.

(7) **Solving problems.** The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) develop and apply advanced technology applications skills;

(B) identify and solve problems, individually and with input from peers and professionals, utilizing research methods and advanced technology applications skills used in a selected profession or discipline;

(C) select and integrate appropriate productivity tools including, but not limited to, word processor, database, spreadsheet, telecommunication, draw, paint, and utility programs into the creation of products;

(D) use foundation and enrichment curricular content in the creation of products;

(E) synthesize and generate new information from data gathered from electronic and telecommunications resources; and

(F) read and use technical documentation.

(8) **Solving problems.** The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) work with a mentor to determine problem to be solved, hypotheses, and strategies to accomplish task;

(B) develop products that meet standards identified by the selected profession or discipline;

(C) produce original work to solve the identified problem and publish the product in electronic media and print;

(D) participate with electronic

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communities as a learner, initiator, contributor, and teacher/mentor; and

(E) participate in relevant, meaningful activities in the larger community and society to create electronic projects.

(9) **Solving problems.** The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product;

(B) produce documentation to illustrate the progress of the project including, but not limited to journals, logs, videos, pictorial documentation, multimedia products, and printed books; and

(C) seek and respond to input from peers and professionals in delineating technological tasks and problem solving.

(10) **Communication.** The student formats digital information for appropriate and effective communication. The student is expected to:

(A) format the developed projects according to defined output specifications including target audience and viewing environment; and

(B) present findings to a panel for comment and professional response.

(11) **Communication.** The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) determine and implement the best method of presenting or publishing findings;

(B) synthesize and publish information in a variety of ways including, but not limited to, printed copy, monitor display, Internet documents, and video; and

(C) use LANs, WANs, and remote resources to exchange and publish information.

(12) **Communication.** The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review and evaluate the product using technology tools such as database managers, daily/monthly planners, and project management tools;

(B) determine and employ technology specifications to evaluate projects for design, content delivery, purpose, and audience, demonstrating that process and product can be evaluated using established criteria or rubrics;

(C) seek and respond to input from peers and professionals in evaluating the product; and

(D) make necessary revisions and/or proceed to the next stage of study.

Source: The provisions of this §126.29 adopted to be effective September 1, 1998, 22 TexReg 5203.