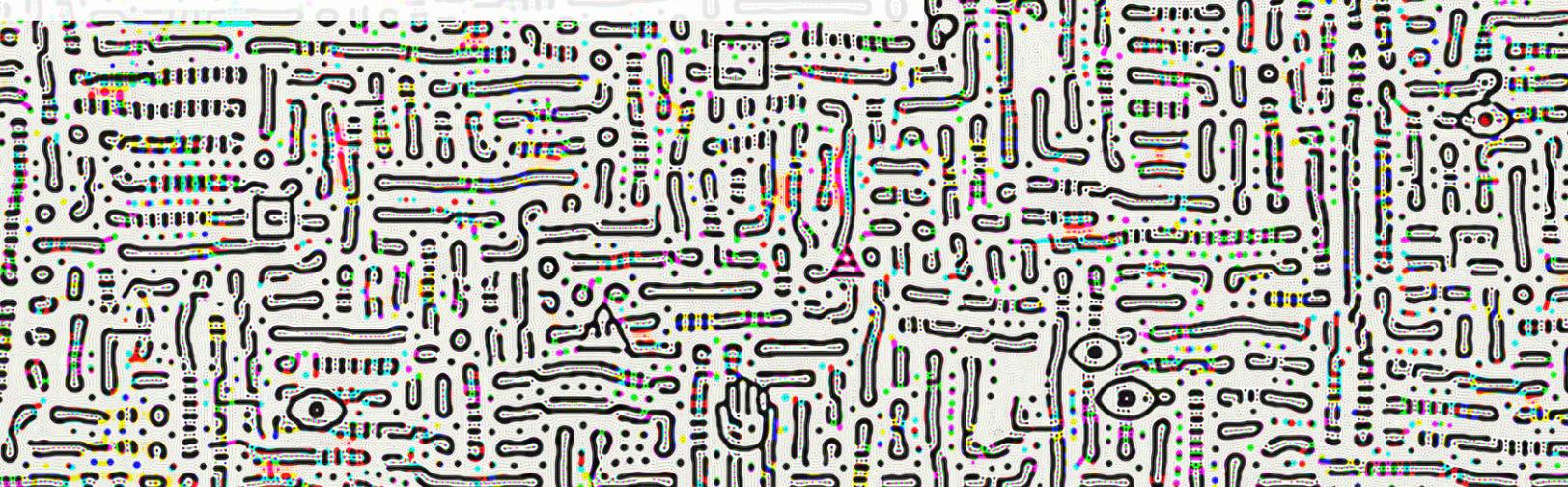


# Digital Design

Foundations of Web Design



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## **Project 1: Web design basics**

- Instructor project guidelines
- Activity guidelines
- Student guides

## **Project 2: Web design & planning**

- Instructor project guidelines
- Activity guidelines
- Student guides

## **Project 3: Web development & deployment**

- Instructor project guidelines
- Activity guidelines
- Student guides

## **Project 4: Portfolios**

- Instructor project guidelines
- Activity guidelines
- Student guides

# Course overview and setup

*Digital Design: Foundations of Web Design* is a one-semester, project-based curriculum that teaches digital communication skills in the context of the professional web design and development process, using Adobe web tools. *Digital Design* develops four key skill areas:

- Project management and collaboration
- Design
- Research and communication
- Professional web-authoring tools

Students develop these key skills in a spiral—each project adds more challenging skills onto the foundation proficiencies.

Digital Design addresses each of these areas, using a project-based approach. Each project has phases that follow a design and development process, from project planning to evaluation and launch. To simulate a professional work environment, students gradually migrate their design work from an individual process to a group process. Design and technical work by its very nature is iterative, so the projects contain activities that require students to evaluate and then redesign and rework their communications. Specific attention has been paid to developing concepts and principles for thorough, effective design.

The following diagram shows the sequence and flow of the projects:

## First semester: Web design and planning and web development



## Projects

*Digital Design* projects develop skills that lay the foundation for producing web-ready communications: design principles, design documents, storyboards, web development, shared project management skills such as interviewing and project scheduling, peer review, and redesign. Project activities focus on developing effective communications that can be deployed on the web. Students develop a web page, a variety of graphic images, a client website, and a portfolio. A great deal of flexibility is implied in the curriculum.

The key skills emphasized in this semester are:

- “Soft” skills such as interviewing and responding to feedback
- Designing a website for clients
- Problem solving that helps support multiple perspectives
- Reflection about the design process and effective communication
- Peer teaching and evaluation in a collaborative environment
- Learning standard web practices and how to implement reusable design
- Technical web publishing

In the first semester, students use Adobe Photoshop and Adobe Fireworks to develop static and interactive graphics. They use Adobe Dreamweaver to design and build websites. This content prepares students for the Adobe Certified Associate in Web Authoring using Adobe Dreamweaver examination.

### **Alternate methods for utilizing *Digital Design***

If your circumstances do not allow you to use *Digital Design* as a yearlong curriculum, there are other ways to structure the content to fit certain time, skill, and course structure limitations.

#### *Activity-based instruction*

You can use an activity-based approach that focuses primarily on teaching discreet project management, design, research and communication, and technical skills by taking the activities from the *Digital Design* curriculum and teaching them individually or grouping them together how you see fit.

You are encouraged to be creative with an activity-based approach while attempting to incorporate a project-based teaching method. In that vein, each activity has small task within so they can be taught discreetly, or you can incorporate the skills learned from each activity into a larger project, as is done throughout the *Digital Design* curriculum. You can search for activities by skill on the Digital Careers activities page (<http://edex.adobe.com/digital-careers-activities>).

#### *Individual projects*

Depending on the skill level of students, you can utilize individual projects from the *Digital Design* curriculum, without completing the other projects in the curriculum sequence. For example, an educator teaching a gaming course might only wish to teach the interactive game project. Additionally, you can adapt the instruction and utilize technical guides from previous projects to teach an individual project.

#### *Product-based instruction*

You can use a product-based approach that focuses primarily on teaching how to use Adobe Fireworks or Adobe Dreamweaver. The technical guides included in the *Digital Design* projects are alternatively

packaged by individual product. For example, download the Learn Dreamweaver CC syllabus if you solely plan to teach Dreamweaver skills to your students.

*Be creative!*

You are encouraged to utilize the *Digital Design* curriculum as a jumping off point to developing your own activities, projects, and curriculums that are customized for your classroom. By utilizing the existing activities and product technical guides, you can formulate complete instructional projects based on particular areas of interest. If you do create your own projects or curriculum, please share them with the community on the Adobe Education Exchange (<http://edex.adobe.com>) where you can also browse for additional resources that are useful for teaching with the Adobe Creative Cloud.

## Digital Design skills matrix

	Project management	Design	Research and communication	Technical
<p><b>Project 1: Web design basics</b></p> <p><i>Focus:</i></p> <ul style="list-style-type: none"> <li>• Understand how CSS is used to create consistency</li> <li>• Principles of good design</li> <li>• Wireframe a web page</li> <li>• Creating an original web page</li> <li>• Evaluating and comparing websites</li> </ul> <p><i>Time:</i> 10-16 hours (2–3 weeks)</p>	<ul style="list-style-type: none"> <li>• Designing for a specific audience and purpose</li> <li>• Understanding the phases of web development</li> </ul>	<ul style="list-style-type: none"> <li>• Designing for their audience(s)</li> <li>• Applying design principles</li> <li>• Creating wireframes</li> <li>• Creating design comps</li> <li>• Learning basic HTML</li> <li>• Understanding CSS</li> <li>• Designing with CSS</li> <li>• Applying design aspects such as color, design, layout, contrast, and composition</li> <li>• Integrating images and text</li> <li>• Planning graphics based on needs and audience</li> </ul>	<ul style="list-style-type: none"> <li>• Analyzing and critiquing websites</li> <li>• Evaluating and analyzing content validity</li> <li>• Evaluating and analyzing website navigation</li> <li>• Understanding copyright issues and fair-use guidelines</li> <li>• Advocating and practicing legal use of images</li> <li>• Collecting and analyzing audience needs and purpose to inform design</li> <li>• Participating in peer review</li> <li>• Communicating and presenting design decisions</li> <li>• Giving feedback on a project</li> </ul>	<p><i>Photoshop</i></p> <ul style="list-style-type: none"> <li>• Understanding the Photoshop workspace</li> <li>• Resizing, rotating, and cropping images</li> <li>• Correcting color</li> <li>• Retouching images</li> <li>• Generating multiple file formats</li> </ul> <p><i>Illustrator</i></p> <ul style="list-style-type: none"> <li>• Understanding the Illustrator workspace</li> <li>• Creating vector artwork</li> <li>• Modifying and transforming graphics</li> </ul> <p><i>Dreamweaver</i></p> <ul style="list-style-type: none"> <li>• Understanding the Dreamweaver workspace</li> <li>• Setting up a web project</li> <li>• Using the Insert panel</li> <li>• Using the Assets panel</li> <li>• Inserting images</li> <li>• Inserting text</li> <li>• Creating and editing HTML</li> <li>• Creating, modifying, and troubleshooting Cascading Style Sheets</li> <li>• Editing and customizing CSS rules</li> <li>• Using the CSS Styles panel</li> <li>• Using CSS text styles</li> <li>• Using Live View</li> <li>• Publishing web files</li> </ul>

<p><b>Project 2: Web design &amp; planning</b></p> <p><i>Focus:</i></p> <ul style="list-style-type: none"> <li>Professional web design process</li> <li>Using design documents to guide a progressive design process</li> <li>Designing for a client</li> <li>Design-team process for website development</li> <li>Team-client interaction and communication</li> </ul> <p><i>Time:</i> 12–18 hours (3–5 weeks)</p>	<ul style="list-style-type: none"> <li>Developing a project plan</li> <li>Developing a design solution document</li> <li>Analyzing to select best examples</li> <li>Synthesizing content based on analysis and reflection</li> <li>Managing and organizing multiple tasks involved in design versus production</li> <li>Understanding roles and responsibilities</li> <li>Meeting deliverables</li> </ul>	<ul style="list-style-type: none"> <li>Communicating ideas and information through simple wireframes</li> <li>Providing multiple design ideas</li> <li>Synthesizing information from design review meetings</li> <li>Creating wireframes</li> <li>Creating design comps</li> <li>Creating storyboards</li> <li>Creating prototypes</li> <li>Applying design principles</li> <li>Applying information architecture</li> <li>Designing for usability and accessibility</li> <li>Designing consistent website pages</li> <li>Understanding and applying design aspects such as color theory, layout, contrast, and composition</li> <li>Designing for usability and accessibility</li> <li>Designing for a specific audience and purpose</li> <li>Planning graphics and interactive media content based on needs and audience</li> <li>Designing for a client while meeting client requirements</li> </ul>	<ul style="list-style-type: none"> <li>Evaluating and analyzing content validity</li> <li>Editing website content</li> <li>Evaluating and analyzing website navigation</li> <li>Understanding and practicing legal use of images</li> <li>Understanding tools for creating animation and interactive content</li> <li>Critiquing designs</li> <li>Communicating purpose and goal</li> <li>Communicating and presenting design decisions</li> <li>Giving feedback on a project</li> <li>Asking questions to focus and clarify</li> <li>Listening and interpreting feedback</li> <li>Understanding and addressing client design issues</li> <li>Finalizing design with a client</li> </ul>	<p><i>Dreamweaver</i></p> <ul style="list-style-type: none"> <li>Understanding accessibility</li> </ul> <p><i>Photoshop</i></p> <ul style="list-style-type: none"> <li>Creating a wireframe</li> <li>Creating design comps</li> </ul> <p><i>Fireworks</i></p> <ul style="list-style-type: none"> <li>Understanding the Fireworks workspace</li> <li>Creating a prototype</li> <li>Exporting a prototype to Dreamweaver</li> </ul>
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<p><b>Project 3: Website development &amp; deployment</b></p> <p><i>Focus:</i></p> <ul style="list-style-type: none"> <li>• Effective team collaboration</li> <li>• Designing for a client</li> <li>• Developing reusable content</li> <li>• Using web standards</li> <li>• Review and redesign process</li> <li>• Designing accessible web content</li> </ul> <p><i>Time:</i> 20–35 hours (4–6 weeks)</p>	<ul style="list-style-type: none"> <li>• Following and executing a project plan</li> <li>• Following and executing a wireframe and prototype</li> <li>• Following up and following through on roles and responsibilities</li> <li>• Defining and prioritizing tasks</li> <li>• Producing deliverables and meeting deadlines</li> <li>• Managing files and using file-naming conventions</li> <li>• Executing a review and redesign cycle</li> <li>• Executing quality assurance tests</li> </ul>	<ul style="list-style-type: none"> <li>• Providing consistency and accessibility</li> <li>• Providing universal navigation</li> <li>• Integrating images, text, and multimedia</li> <li>• Planning graphics and multimedia based on needs and audience</li> <li>• Creating web pages using web standards</li> <li>• Designing with CSS</li> <li>• Organizing pages with CSS</li> <li>• Understanding HTML</li> <li>• Using basic HTML</li> <li>• Creating templates and reusable designs</li> <li>• Adapting content for readability and emphasis</li> <li>• Designing for multiple screens</li> <li>• Considering screen size and device requirements</li> <li>• Incorporating layout and color consistently</li> <li>• Designing a quality assurance test</li> </ul>	<ul style="list-style-type: none"> <li>• Communicating ideas clearly</li> <li>• Presenting a website to a group</li> <li>• Taking notes on critique</li> <li>• Providing meaningful but not overly critical feedback</li> <li>• Listening and interpreting information and feedback</li> <li>• Demonstrating the realization of redesign goals</li> <li>• Conducting usability analysis</li> <li>• Creating quality assurance tests</li> </ul>	<p><i>Dreamweaver</i></p> <ul style="list-style-type: none"> <li>• Understanding the Dreamweaver workspace</li> <li>• Setting up a web project</li> <li>• Setting document properties</li> <li>• Using the Insert, Files, and Assets panel</li> <li>• Inserting images</li> <li>• Inserting text</li> <li>• Creating lists</li> <li>• Creating data tables</li> <li>• Using CSS starter layouts</li> <li>• Using CSS text styles</li> <li>• Creating, modifying, and troubleshooting CSS</li> <li>• Creating templates</li> <li>• Developing a website for multiple screens</li> <li>• Checking files in and out</li> <li>• Inserting HTML5 video</li> <li>• Checking links</li> <li>• Testing in different operating systems and multiple browsers</li> <li>• Publishing web files</li> </ul> <p><i>Photoshop</i></p> <ul style="list-style-type: none"> <li>• Optimizing images</li> <li>• Creating buttons</li> <li>• Resizing, rotating, and cropping images</li> </ul> <p><i>Fireworks</i></p> <ul style="list-style-type: none"> <li>• Creating navigation bars</li> <li>• Creating pop-up menus</li> </ul>
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<p><b>Project 4: Portfolios</b></p> <p><i>Focus:</i></p> <ul style="list-style-type: none"> <li>• Portfolio design</li> <li>• Presentation of skills</li> <li>• Career research and development</li> </ul> <p><i>Time:</i> 10–20 hours (2–4 weeks)</p>	<ul style="list-style-type: none"> <li>• Planning and creating a portfolio</li> <li>• Organizing and managing content</li> <li>• Conducting a review and redesign</li> <li>• Identifying the purpose and audience for a portfolio</li> <li>• Creating flowcharts</li> </ul>	<ul style="list-style-type: none"> <li>• Designing for a specific audience and purpose</li> <li>• Selecting appropriate content</li> <li>• Providing consistency and accessibility</li> <li>• Providing universal navigation</li> <li>• Adapting content for readability and emphasis</li> </ul>	<ul style="list-style-type: none"> <li>• Planning and conducting research strategies</li> <li>• Understanding and practicing lifelong career skills: <ul style="list-style-type: none"> <li>• Job research skills</li> <li>• Presenting skills</li> </ul> </li> <li>• Communicating information to particular audiences</li> <li>• Defining the goals and uses of a portfolio</li> <li>• Soliciting and providing feedback</li> <li>• Writing and editing portfolio content</li> </ul>	<p><i>General skills</i></p> <ul style="list-style-type: none"> <li>• Building a portfolio</li> <li>• Formatting and adding portfolio content</li> <li>• Updating a portfolio</li> <li>• Testing a portfolio</li> </ul>
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## **Classroom computer setup**

We've included the technical information you will need to get your computer lab or classroom ready to implement the Digital Design curriculum.

### **Adobe Fireworks CS6**

Install Fireworks on all workstations. System requirements are noted below and installation procedures are included with the software. For updates to system requirements, visit:

[www.adobe.com/go/fireworks\\_systemreqs](http://www.adobe.com/go/fireworks_systemreqs)

### **Adobe Photoshop CC**

Install Photoshop CC on all workstations. System requirements and installation procedures are included with the software. For updates to system requirements, visit: [www.adobe.com/go/photoshop\\_systemreqs](http://www.adobe.com/go/photoshop_systemreqs)

### **Adobe Illustrator CC**

Install Illustrator CC on all workstations. System requirements and installation procedures are included with the software. For updates to system requirements, visit: [www.adobe.com/go/illustrator\\_systemreqs](http://www.adobe.com/go/illustrator_systemreqs)

### **Adobe Dreamweaver CC**

Install Dreamweaver on all workstations. System requirements are noted below and installation procedures are included with the software. For updates to system requirements, visit:

[www.adobe.com/go/dreamweaver\\_systemreqs](http://www.adobe.com/go/dreamweaver_systemreqs)

### **Adobe Flash Professional CC**

Install Flash on all workstations. System requirements are noted below and installation procedures are included with the software. For updates to system requirements, visit:

[www.adobe.com/go/flash\\_systemreqs](http://www.adobe.com/go/flash_systemreqs)

## Classroom enrichment

Many techniques can help enhance students' experience as they engage in these projects and also help you manage the content and technology. When you set up your computer lab or classroom for working on technology-based projects, the suggestions below can help create a successful learning experience for your Digital Design students.

### Acceptable use policies

To promote good digital citizenship and to help students feel ownership of the technology and tools they use, discuss acceptable use policies with students. Your institution might already have a policy, but discuss with students appropriate use of the Internet and technology tools and have them apply their understanding to various misuse scenarios to determine consequences. Work with students to create a class policy to protect the rights and privileges of fellow students and class hardware/software. Propose rules for good team dynamics and peer critiques.

### File Management

To save time in assessing student work, make sure all classroom materials and student work are properly saved and posted (preferably on a school server). The following guidelines will help:

- *Student folders:* All students should have a folder for all of their work. Folder names might include student's last name, first initial, and class period (such as "per7\_m\_smith").
- *Backups:* Students might want to keep flash drives, local copies, or school backup server copies of their folders or backup their files to the cloud.
- *Working from home:* Students can work from home, but make sure they find a way to transfer their work to the school computers (such as FTP, e-mail, flash drive, cloud storage, or school server).
- *Turning in work:* If students work from home by e-mail, make sure you have effective file virus protection and that all work is clearly labeled for ease of identification and organization (for example, per7\_logo\_m\_smith).
- *Legal issues:* If you plan to publish student work on the web, check into your school's rules about putting pictures or names of students on the web. It might be appropriate for students not to include their full names or e-mail addresses.

### Classroom environment

Using technology as part of any lesson in the classroom can lead to management issues unrelated to the content being covered. Here are some tips and techniques that can help you manage the technology while reinforcing key concepts:

- *Good design posters:* Because the course focuses on good design techniques, you might want to print and laminate examples of well-designed websites and post them throughout the classroom. A variation might be to post examples of "good" and "bad" site designs on opposite sides of the classroom. The good and bad design examples should include both HTML sites and Adobe Flash sites. You might also have students compile a list of good design criteria throughout the course and post it in the classroom.
- *Help center:* Create a library of print materials for software and design techniques in a corner of the classroom where students can browse for answers to challenging questions.
- *Running questions list:* List technical questions for student research on a large piece of paper or chalkboard in the classroom. As the questions are answered, write the answers below them.

- *Student leaders*: Designate lead students with strong technical skills to be the first person contacted for software or hardware questions and issues so students do not break up the lesson time with technology questions. You might rotate this role among different sets of students, empowering them to take more initiative with their learning.
- *Questioning process*: You might face some running around when students have open time to work on projects. To alleviate this, urge students to try to find the answer themselves first and rely on the teacher second and to continue working without waiting for an answer. For example, you might request students to look in the help system first and ask their neighboring peers before they ask the teacher. You might also provide students with props to place on their monitors as a silent signal that they want help.
- *Technology extension*: As students work on their projects, some will come across techniques that have not been demonstrated to the class. When student groups learn a new technique on their own, ask them to present it to the class. The group should show the resulting product, share step-by-step how they completed it, and have the class complete the same steps while group members walk around to help others learn the technique.
- *Using constructive comments*: Working in teams requires students to become better communicators. During the web design process, students will sometimes need to critique each others' work. Giving feedback requires students to be sensitive to the feelings of others. To help students become better communicators, you might spend some time brainstorming with the class to identify constructive comments and words. You can use the *Peer review* activity as a guideline to create a class-generated list can be posted as a reminder for everyone when giving a critique of a fellow student's work.

### **Ethical content use and production**

In many projects students will gather, manipulate, and create images and websites. Emphasize the social responsibility students have to each other and their audience to help them build good practices as they take these skills to future programs and jobs. Some areas to focus on include:

- *Content validity*: As students research content online, have them continually consider and evaluate content bias, currency, and source corroborating. You can use the *Research and writing for design projects* activity to help students understand how to assess online content. Or you might cover some search techniques such as those provided by November Learning: <http://novemberlearning.com/resources/information-literacy-resources/>.
- *Copyright*: Emphasize the need to gain permission to use graphics, images, video, and audio produced by others and to copyright their own original work. Use the *Copyright and fair use* activity to help your students learn how to correctly identify and site sources.

### **Limited resources (digital cameras, video cameras, etc):**

- Consider having students work in groups instead of individually.
- Consider connecting all computers into a local network to encourage collaborative learning.
- You might divide computers into learning stations, perhaps grouped by subject areas or activities (digital media center, web research center, etc.).
- You might consider splitting up the activities associated with the project. Have some students use the equipment to gather their data while others spend time researching the topic at hand, planning their time with the equipment for what they might capture, or building an aspect of the project. Rotate groups to ensure all students are occupied at all times.

## Professional skills

This course is designed to introduce students to professional experiences. You can reinforce the ideas around professional behavior and work in a few ways.

- *Soft skills:* When communicating with clients, students need soft skills to help them interview and review their work with clients. You might have students practice interviewing each other or conduct practice interviews with you as they develop skills for speaking with clients. The *Working with clients* activity covers many of these skills.
- *Project tracking:* Reinforce the need to plan appropriate schedules and manage time. You might consider having students give brief daily status reports of how they are doing on time per task. Guide students in reprioritizing and updating their project plans when needed. The *Planning design projects* activity provides details and a project plan worksheet to help your students learn these skills.
- *Team-work:* Helping students develop individually and as productive team members is a challenging task. You might reinforce the importance of both types of development by evaluating their individual performance as well as the ways they contribute to team goals, work to solve any team conflicts, and collaborate with other teams to adopt successful practices. Use the *Introduction to project planning, project management, and teamwork* activity to help students learn how to manage projects and work in teams.

*Professional environment:* To prepare students to work with clients and help them develop professional attitudes, you might want to give them weekly points for displaying professional attitudes and skills, such as the following:

- Punctuality
- Dressing well when interviewing peers and clients
- Promptly replying to peers and clients
- Listening to suggestions and working well in groups

*Professional designers:* Students can benefit greatly from speaking with a professional web designer or developer. You could arrange a field trip to a design studio or ask a designer to visit your classroom. Key topics to address with the designer

- Teamwork and collaboration
- Effective design
- Samples of the designer's work and the challenges they presented
- Use of professional software, such as Adobe products, in the web and rich media fields
- Critique of student work

## Teaching across disciplines

You could team-teach some projects with teachers from other departments to help traditional content area teachers integrate technology into their courses while helping students develop skills in academic areas such as writing, reading, math, and science. You can have students go into the other teacher's classroom for a change of atmosphere, or bring the other teacher into your classroom. This is especially helpful with the following topics:

*Graphic design:* An art teacher can address topics such as line, rule of thirds, and typography.

*Web page design:* An art teacher can address topics such as composition, color, and shape.

*Web page design and production:* A business or career exploration teacher can discuss the qualifications, salary, and skills required for working in the web design field. A marketing teacher can enhance the discussion around audience and purpose.

*Web page content:* A literature teacher could emphasize writing for different audiences as students engage in web projects that include different clients.

## Skills overview rubric

This general skills rubric is a tool for assessing various aspects of major web and rich-media projects. Although each activity has its own rubric, you might use the following to help you assess particular aspects of projects further. Select the items that apply to a particular project.

### Design skills

Category	Does not meet expectations	Meets expectations	Exceeds expectations
Composition	There is no use of white space, symmetry, and focal point. Site pages (and elements within pages) are cut off inappropriately at their borders or are surrounded by excessive white space.	There is some use of white space, symmetry, and focal point. Site pages (and elements within pages) usually fit appropriately within their borders.	White space, symmetry, and focal point are used effectively. Site pages (and elements within pages) fit within their borders in a pleasing manner.
Color	Colors clash and do little for the theme of the design. Background color interferes with text and images. Colors make text less readable.	Colors are somewhat complementary. Background color coordinates with images and text design. Colors do not interfere with readability.	Colors work together, reinforcing the theme of the design. Background color enhances images and text design. Colors strongly support readability.
Typography	Text is not easily readable. White space is not used effectively. Fonts and text effects interfere with the design and readability.	Text is readable. Type sizes communicate information and are compatible with overall site design. White space around text supports readability and design. Fonts and text effects are compatible with the design and readability.	Text is readable, and selected fonts support design goals. Type sizes reflect desired emphasis. White space around text strongly supports readability and design. Fonts and text effects add to mood and tone. Fonts enhance readability through color, size, and contrast.
Usability	Site navigation appears on some pages, and not all links function properly. Navigation does not allow users access to all main pages in the site and is not intuitive to use. Some site pages take a noticeable time to load, and the delays are caused by irrelevant elements.	Site navigation appears on all pages, and all links function properly. Navigation gives users access to most main pages in the site and is intuitive to use. Some site pages take a noticeable time to load, but most delays are worth the wait.	Consistent site navigation appears on all pages, and all links function properly. Navigation gives users access to all main pages in the site and is intuitive to use. Site pages load in a reasonable time, and any noticeable delays are worth the wait.

Category	Does not meet expectations	Meets expectations	Exceeds expectations
Use of technical elements (Dreamweaver, Fireworks, Photoshop, Illustrator, or Flash)	Use of technical elements and effects does not enhance the user's experience or consistently support the overall goals and message of the site.	Use of technical elements and effects consistently supports the overall goals and message of the site but does not enhance the user's experience. Use of such elements or effects is not excessive or distracting.	Use of technical elements and effects adds to the overall design of the site by enhancing the user's experience and supporting the goals and message of the site. Use of such elements or effects is not excessive or distracting.
Storyboard	Storyboard provides incomplete or contradictory production information.	Storyboard is complete but somewhat difficult to interpret.	Storyboard is thorough, complete, and very clear.

### Technical skills

Category	Does not meet expectations	Meets expectations	Exceeds expectations
Accessibility	Very few graphical site elements, such as images and buttons, have alternative text tags.	Some graphical site elements, such as images and buttons, have alternative text tags.	All graphical site elements, such as images and buttons, have alternative text tags.
Drawing	Illustrations and buttons are poorly drawn, not always using appropriate drawing and effects tools.	Illustrations and buttons are drawn in a sufficient manner, using a range of drawing and effects tools.	Illustrations and buttons are cleanly and clearly drawn, effectively using the full range of drawing and effects tools.
Color panels	Color is not consistently applied and panels are usually not configured for the web.	Color is consistently applied most of the time, and panels are usually configured for the web.	Color is consistently applied, and panels are configured for the web.
Optimization	The quality of images is not sufficient, or the file size is too large.	Images have a satisfactory balance of quality and file size.	Images have an excellent balance of quality and file size.
Tool use	Student frequently has to ask what tool to use to create desired elements and effects. Does not independently use available information about the tools. Does not use tools efficiently.	Student usually knows what tool to use to create desired elements and effects but sometimes needs to be reminded to use available information about the tools. Uses most tools efficiently.	Student knows what tool to use to create desired elements and effects or uses resources effectively and independently to find out. Uses tools efficiently.

## Research and communication skills

Category	Does not meet expectations	Meets expectations	Exceeds expectations
Design process	The design process does not include all appropriate elements, such as sketches, site map, storyboard, and review comments. The final product does not completely reflect the storyboard and feedback.	The design process includes elements such as sketches, site map, storyboard, and review comments. The final product reflects the storyboard, with some revisions based on feedback.	The design process includes all appropriate elements, such as sketches, site map, storyboard, and review comments. The final product accurately reflects the storyboard, including storyboard revisions based on feedback and thoughtful design decisions made during production.
Feedback	Reviews of other students' designs do not adequately address content and design. Feedback does not use informative vocabulary and is often not constructive.	Reviews of other students' designs provide some analysis of content and design. Feedback uses some informative vocabulary and connects comments to design and content. Feedback is not always constructive.	Reviews of other students' designs provide thorough and insightful analysis of content and design. Feedback uses clear and informative vocabulary and connects comments to design and content. Feedback is always constructive.
Presentation	Design presentations provide little information on the goals, design concepts, and requirements of a project.	Design presentations cover the goals, design concepts, and requirements of a project.	Design presentations clearly and completely state the goals, design concepts, and requirements of a project.
Team collaboration	Student does not collaborate with other students to provide feedback or assistance. Fulfills assigned team roles but does not contribute equally to project work. Does not consult with other team members before making major project decisions. Does not help others build skills.	Student collaborates with other students as required to provide feedback or assistance. Fulfills assigned team roles and contributes equally to project work. Sometimes consults with other team members on major project decisions but makes minimal effort to help others build skills.	Student collaborates freely with other students to provide feedback or assistance. Fulfills assigned team roles and contributes equally to project work. Consults with other team members on major project decisions and voluntarily helps others build skills to complete the project.

## Project management skills

Category	Does not meet expectations	Meets expectations	Exceeds expectations
Progressive design	Student does not use a design document or peer feedback.	Student uses design documents to guide the design process. Inconsistently uses peer feedback to guide the redesign process.	Student consistently uses design documents to guide the design and development process. Thoughtfully uses peer feedback to guide the redesign process.
File management	Student files and folders are inconsistently named and not logically organized. File organization is not seen as an important task.	Most student files and folders are named and organized logically on both local and remote drives. File organization evolves as project work progresses.	Student files and folders are consistently named and logically organized on both local and remote drives. File organization is created at the start of a project.
Task review	Student does not respond to feedback, or student redesigns without deciding whether the feedback improves the content and design of the project.	Student responds to feedback, deciding which feedback improves the content and design of the project. Incorporates some of this feedback into redesign.	Student responds thoughtfully and completely to feedback, deciding which feedback most effectively improves the content and design of the project. Incorporates this feedback into redesign of a project.
Time management	Student does not effectively allot time for the phases of the design and development process. Completes few phases on schedule.	Student allots time for each phase of the design and development process through a project plan. Completes most phases on schedule.	Student thoughtfully and effectively allots time for each phase of the design and development process through a project plan. Completes all phases on schedule.

# ISTE NETS\*S Standards for Students

The International Society for Technology in Education (ISTE) is the trusted source for professional development, knowledge generation, advocacy, and leadership for innovation. These standards, identified throughout the Digital Design curriculum, are integrated into the various activities students engage in during each project.

## I. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- A. apply existing knowledge to generate new ideas, products, or processes.
- B. create original works as a means of personal or group expression
- C. use models and simulations to explore complex systems and issues.
- D. identify trends and forecast possibilities.

## II. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- A. interact, collaborate, and publish with peers, experts or others employing a variety of digital environments and media.
- B. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- C. develop cultural understanding and global awareness by engaging with learners of other cultures.
- D. contribute to project teams to produce original works or solve problems.

## III. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

- A. plan strategies to guide inquiry.
- B. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- C. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- D. process data and report results.

## IV. Critical Thinking, Problem-Solving & Decision-Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students:

- A. identify and define authentic problems and significant questions for investigation.
- B. plan and manage activities to develop a solution or complete a project.

- C. collect and analyze data to identify solutions and/or make informed decisions.
- D. use multiple processes and diverse perspectives to explore alternative solutions.

V. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- A. advocate and practice safe, legal, and responsible use of information and technology.
- B. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- C. demonstrate personal responsibility for lifelong learning.
- D. exhibit leadership for digital citizenship.

VI. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems and operations. Students:

- A. understand and use technology systems.
- B. select and use applications effectively and productively.
- C. troubleshoot systems and applications.
- D. transfer current knowledge to learning of new technologies.

# Adobe Certified Associate (ACA) exam

Over the last few years, Adobe conducted research to identify the foundation skills students need to create effective communication using different digital media tools. Adobe met with educators and design professionals and surveyed businesses and educational institutions around the world. The research resulted in objectives that cover design, project planning, communication, and technology. The following set of essential learning objectives are a part of the Adobe Certified Associate exam in Web Authoring and is integrated throughout the *Digital Design* curriculum.

## Adobe Certified Associate in Web Authoring using Adobe Dreamweaver exam objectives

### Setting project requirements

- 1.1 Identify the purpose, audience, and audience needs for a website.
- 1.2 Identify web page content that is relevant to the website purpose and appropriate for the target audience.
- 1.3 Demonstrate knowledge of standard copyright rules (related terms, obtaining permission, and citing copyrighted material).
- 1.4 Demonstrate knowledge of website accessibility standards that address the needs of people with visual and motor impairments.
- 1.5 Make website development decisions based on your analysis and interpretation of design specifications.
- 1.6 Understand project management tasks and responsibilities.

### Planning site design and page layout

- 2.1 Demonstrate general and Dreamweaver-specific knowledge of best practices for designing a website, such as maintaining consistency, separating content from design, using standard fonts, and utilizing visual hierarchy.
- 2.2 Produce website designs that work equally well on various operating systems, browser versions/configurations, and devices.
- 2.3 Demonstrate knowledge of page layout design concepts and principles.
- 2.4 Identify basic principles of website usability, readability, and accessibility.
- 2.5 Demonstrate knowledge of flowcharts, storyboards, wireframes, and design comps to create web pages and a site map (site index) that maintain the planned website hierarchy.
- 2.6 Communicate with others (such as peers and clients) about design plans.

### Understanding the Adobe Dreamweaver interface

- 3.1 Identify elements of the Dreamweaver interface.
- 3.2 Use the Insert panel.

- 3.3 Use the Property inspector.
- 3.4 Use the Assets panel.
- 3.5 Use the Files panel.
- 3.6 Customize the workspace.

### **Adding content by using Dreamweaver**

- 4.1 Demonstrate knowledge of Hypertext Markup Language.
- 4.2 Define a Dreamweaver site.
- 4.3 Create, title, name, and save a web page.
- 4.4 Add text to a web page.
- 4.5 Insert images and apply alternative text on a web page.
- 4.6 Link web content, using hyperlinks, e-mail links, and named anchors.
- 4.7 Include video and sound in a web page.
- 4.8 Include animation and interactivity in a web page.
- 4.9 Insert navigation bars, rollover images, and buttons created in a drawing program on a web page.
- 4.10 Import tabular data to a web page.
- 4.11 Import and display a Microsoft Word or Microsoft Excel document to a web page.
- 4.12 Create forms.

### **Organizing content by using Dreamweaver**

- 5.1 Set and modify document properties.
- 5.2 Organize web page layout with relative and absolutely-positioned div tags and CSS styles.
- 5.3 Modify text and text properties.
- 5.4 Modify images and image properties.
- 5.5 Create web page templates.
- 5.6 Use basic HTML tags to set up an HTML document, format text, add links, create tables, and build ordered and unordered lists.
- 5.7 Add head content to make a web page visible to search engines.
- 5.8 Use CSS to implement a reusable design.

### **Evaluating and maintaining a site by using Dreamweaver**

- 6.1 Conduct technical tests.
- 6.2 Identify techniques for basic usability tests.
- 6.3 Identify methods for collecting site feedback.
- 6.4 Manage assets, links, and files for a site.
- 6.5 Publish and update site files to a remote server.