Rochester Institute of Technology (RIT) is a private university focused on preparing students for successful careers in a global society. Academic programs are divided among nine colleges and institutes emphasizing career education and experiential learning. RIT offers two closely related new media programs that together provide a unique approach to education in this exciting field. Both programs use Adobe Creative Suite 4 Web Premium software to prepare students for a broad range of professional career paths.

Teaching collaboration

New media program teaches students to appreciate complementary nature of design and development using Adobe® Creative Suite® 4 Web Premium software.
“RIT New Media and Game Design & Development courses use Adobe Creative Suite 4 Web Premium software to provide students with foundational skills in graphic design, photographic imaging, video, publishing, programming, and information technology,”

Steve Kurtz, professor of Interactive Games and Media, RIT

New media directions
In today’s contemporary society, new media is integrated into how people learn, shop, play, and socialize. To succeed in this rapidly evolving and exciting field, students must learn how to integrate the latest technologies with creative disciplines to design innovative new media solutions. RIT arms graduates with a solid background in design and development so they enter the workforce prepared to tackle the latest new media challenges.

Students at RIT can choose to pursue a Bachelor of Science degree in New Media Interactive Development through the Interactive Games and Media department or a Bachelor of Fine Arts degree in New Media Design and Imaging through the College of Imaging Arts and Sciences. Mirroring what they will encounter in the workforce, this pair of programs enables students to learn and practice their respective disciplines in close collaboration with one another.

Although each program has a unique emphasis, students from the two departments share a common first year, including courses with faculty from both colleges. This shared first year provides a foundation for future collaborative work. Coursework includes graphic design, photographic imaging, video, publishing, programming, and interactive media topics.

New Media Interactive Development students gain a fundamental understanding of design, including space, typography, and graphics, while Design and Imaging students are introduced to the technical elements of development. By incorporating industry standard Adobe solutions into the curriculum, students gain real-world skills that are applicable the day they graduate.

“RIT New Media and Game Design & Development courses use Adobe Creative Suite 4 Web Premium software to provide students with foundational skills in graphic design, photographic imaging, video, publishing, programming, and information technology,” says Steve Kurtz, professor of New Media Interactive Development at RIT.

Tools for success
The collaborative instructional environment helps students in each department appreciate all aspects of the design and development process. As designers create compositions and prototype websites they have a better understanding of interactivity, what an application can do, and how far they can push the limits using the principles of graphic design. Interactive
"The new media team project is a culminating experience that provides an opportunity for students to apply their skills in collaboration with students from different disciplines in a setting much like that found in the industry. Adobe Creative Suite 4 Web Premium gives our students an excellent set of tools for this purpose and has provided the framework for many of our senior projects."

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developers use their design foundation to implement the work from designers much faster, while maintaining the integrity of the design.

Students in the New Media programs take their first two programming courses using Adobe Creative Suite 4 Web Premium software. The Adobe Flash CS4 Professional development environment facilitates giving students open-ended assignments that help develop the creative problem solving skills their future employers seek.

"Programming projects from the start are expressive, with students challenged to realize their own ideas," explains Kurtz. "Adobe ActionScript® and Flash Professional give students a powerful environment to express themselves and enable faculty to teach programming in a style conducive to creative practice."

Real-world collaboration

After the first year, the two programs split and become more specialized. In the senior year, the New Media Interactive Development students rejoin students from the New Media Design and Imaging program to complete a new media team project that replicates a real-world experience, often with involvement from external, commercial, or non-profit clientele.

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Recently, students completed an online portfolio project for the New Media department at RIT. The purpose of the project was to showcase student work in an interactive portfolio that uses a card deck analogy to display projects. The portfolio gives students a central location to show off their work and enables professors to bookmark specific projects for display during presentations.

A workflow that works

The workflow that students followed was similar to that of a digital agency. Students in the design department worked as a team to create comps in Adobe Photoshop CS4 Extended and Cinema 4D that showed both the visual and interactive experience they wanted. They designed 2D pictures of the website in Photoshop, and used Cinema 4D to create 3D objects. The objects were then rendered out and taken back into Photoshop for final compositing.

The team also used Adobe After Effects® CS4 to create the 3D scene in Cinema 4D that would show the animation of the cards being dealt. They then rendered the sequences from Cinema 4D and took the rendered files back into After Effects to apply motion tracking.

RIT
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www.rit.edu
http://interactive.rit.edu
http://games.rit.edu
www.rit.edu/programs/ugrad/colleges/ccis/itnewmedia.html

Challenges
• Bring two new media programs together for a foundational year of study
• Teach students how to work in a team environment
• Prepare students for a broad range of professional career paths

Solution
• Teach the fundamental principles of new media design and development using Adobe Creative Suite 4 Web Premium software
• Create compositions in Adobe Photoshop CS4 Extended and Adobe Illustrator® CS4
• Implement design and development work using Adobe Flash CS4 Professional and Adobe Dreamweaver CS4

Benefits
• Gives students an appreciation for all aspects of the design and development process
• Demonstrates the benefits of a collaborative relationship between design and development
• Arms students with the knowledge and skills they need to succeed in the workplace

Toolkit
• Adobe Creative Suite 4 Web Premium. Components used include:
  • Adobe Photoshop CS4 Extended
  • Adobe Illustrator CS4
  • Adobe Flash CS4 Professional
  • Adobe Dreamweaver CS4
  • Adobe ActionScript
  • Adobe After Effects CS4
The designers then passed the comps to the interactive development team responsible for implementing the design vision. Developers took the Photoshop CS4, After Effects CS4, and Cinema 4D files and used Flash CS4 Professional to create a 3D environment with multiple levels. Adobe Dreamweaver CS4 was used on the back end, which provides a service for professors to log in, connect to the database, upload projects, and save descriptions.

“Programming in Adobe Flash Professional removed a lot of the non-important legwork from creating the application and let us focus on solving problems in creative ways,” says Colin Doody, an Interactive Development student who worked on the project.

The team wanted to enable visitors to move back and forth through the portfolios, so they implemented a back button in the website that animates and intelligently directs people through the 3D portfolio. The entire application was programmed using Flash CS4 Professional, including all functionality, deep linking, 3D transformation, interactions, and hover overs. “Adobe Flash Professional was the best and only solution for the new media showcase project,” says Doody.

**Long-term view**

In addition to teaching design and development students how to effectively collaborate on projects, the new media programs at RIT also have a strong focus on career education. Companies come in regularly to talk with students about life at a company, review portfolios and resumes, and provide feedback. Students participate in three quarters of co-op education, where they work in their intended field for ten weeks at a time. This experience reinforces what they’ve learned in the classroom and prepares them for life after graduation.

Now a student in the Game Design and Development Master’s program at RIT, Doody believes that working with Adobe Creative Suite 4 Web Premium software has given him the knowledge he needs to succeed in the workplace. “After learning new media design and development using Adobe Creative Suite 4 Web Premium software I feel secure in my ability to get a job and incredibly prepared to do work in the real world,” he says.