The University for Creation and New Media !

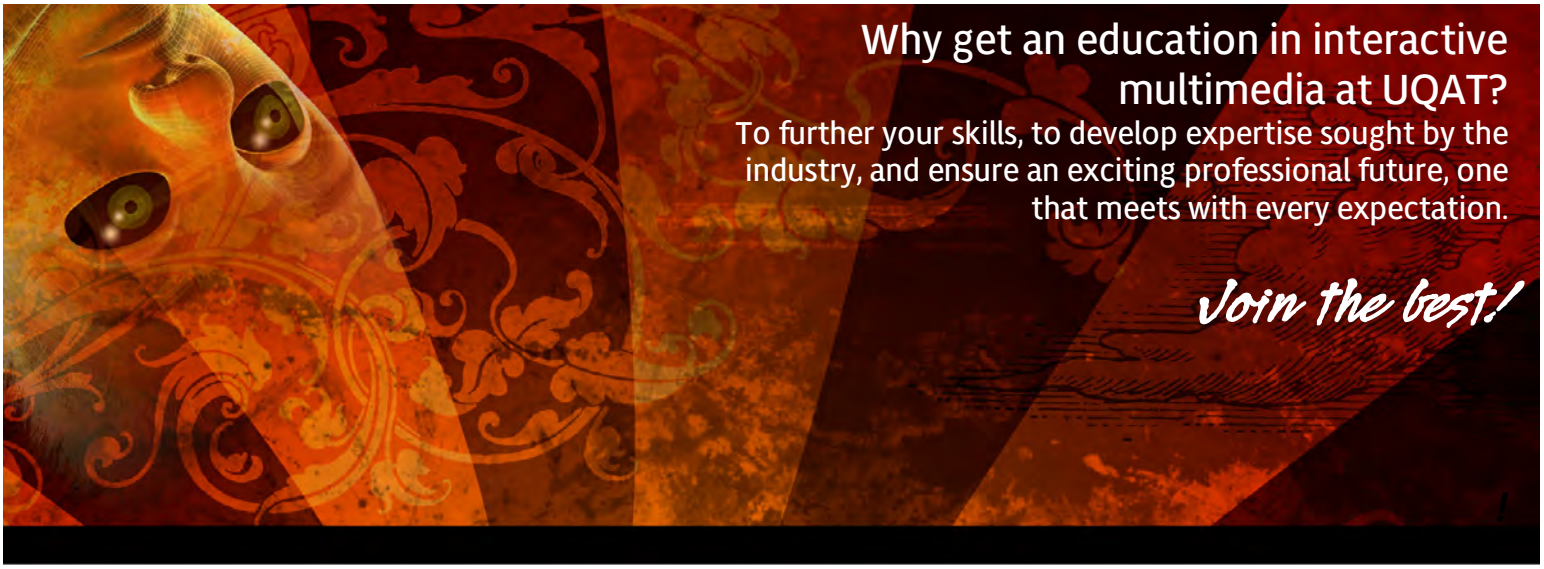
CERTIFICATE IN INTERACTIVE MULTIMEDIA

NEW PROGRAM – FALL 2010

- Program offered to the **First Peoples**.
- Program offered at the **Val-d'Or** campus.
- Ideal as an introduction to the field of multimedia and for the development of a critical, artistic and creative approach.

création nouveaux médias

Université du Québec en Abitibi-Témiscamingue



UQAT: a leader in multimedia and 3D creation

The Université du Québec en Abitibi-Témiscamingue (UQAT) is considered one of the leaders in the province of Quebec in the field of multimedia and 3D instruction. The reason? **Creativity** is a constant in our programs.

Our students, able to take advantage of the latest technical and theoretical training, will be able to meet the needs of the job market for technologists and creative staff.

DYNAMIC AND QUALIFIED PROFESSORS

The fields of multimedia and 3D creation have given rise to new creative professions in recent years, which are constantly evolving, and which offer many exciting challenges. Our professorial team was created to meet these contextual and industry realities. Young, dynamic, immersed in a high-technology environment and balanced with its theoretical and practical aspects: that's our team!

ADMISSION REQUIREMENTS

To be admitted to the Certificate in Interactive Multimedia, the candidate must hold a Diploma of College Studies (or the equivalent) or be at least 21 years of age, with experience considered to be relevant by the module's director. Candidates for the program must demonstrate an interest in new information technologies and/or an interest in developing their artistic and creative abilities.

Certificate in Interactive Multimedia

COURSE PLAN

ART1104	Tools for Multimedia Application Development I (3 cr.)
ART1105	Tools for Multimedia Application Development II (3 cr.) (ART1104; ART1211)
ART1202	Scripting and Production of an Interactive Multimedia Application (3 cr.)
ART1211	Internet (3 cr.) (ART1104)
ART1214	Sound Design (3 cr.)
ART1215	Film, Television, Visual Arts and Multimedia (3 cr.) (ART1104)
ART1221	Graphic Design and Computer Graphics (3 cr.) (ART1104)
ART1227	Interactive Multimedia Application Programming Project (6 cr.) (ART1104)
ART1401	Basics I : The Basics of 3D Creation (3 cr.)

DESCRIPTION OF MANDATORY COURSES

ART1104 Tools for Multimedia Application Development I (3 cr.)

Objectives

Acquire basic technical skills to be able to use the computer correctly. Develop conceptual skills for using software packages designed for artistic creation. Demonstrate how the computer can become a creative tool or a medium for creation, by exploring various state-of-the-art software packages useful in the creation of disciplinary or multidisciplinary projects (simulation, image processing, animation, video editing, sound, etc.). Develop critical judgment with respect to artistic projects and be able to accept constructive criticism regarding personal creations.

Content

The computer and its environment. Exploration of software designed for artistic creation: basic graphic arts, image processing and digitization, sound editing, video editing. Learning the various steps specific to the development, conceptualization and production of a project using several media.

FOR MORE INFORMATION
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COURSE DESCRIPTIONS

ART1105 Tools for Multimedia Application Development II (3 cr.)

Objectives

Use computer peripherals and software designed specifically for the creation of an interactive multimedia application. Learn how an authoring software can, in appropriate conditions, become an effective medium for creation in a multimedia environment.

Content

Learn to use basic creation software. Become familiar with the different types of work involved in the production of interactive multimedia. Master the interactivity parameters found in software used by the industry. Become familiar with the notions of visual ergonomics and navigation specific to interactive multimedia applications. Learn basic algorithms and programming which are easily transferable to different multimedia software packages. Develop an interactive multimedia application using high-end programming and graphic design.

ART1202 Scripting and Production of an Interactive Multimedia Application (3 cr.)

Objectives

Introduction to the field of knowledge and concepts common to the practice of interactive multimedia. Understand how an interactive multimedia application is produced. Learn to write an interactive script and to produce an interactive multimedia application. Develop a creative and critical approach to the production of interactive multimedia.

Content

Explore the major parameters of interactive scripting: the process of interactive scripting, the development of the basic concept, structuring the content, tree-structured menus (or) navigation scheme, navigation strategies, the story-board, and the design of the interface. Study examples of multimedia work which are representative of the different types of production (interactive terminals, educational software, games, corporate presentations, art CD-ROMs, etc.). Explore the process of production (tasks and sequence of operations), division of production tasks within a team; non-linear scripting; experimenting with elements from a variety of digital or analog sources.

ART1211 Internet (3 cr.) Prerequisite: ART1104

Objectives

Acquire the necessary knowledge and skills to design, produce and launch a website. Develop knowledge by exploring the major software tools used in creating a structured and user-friendly website. Develop a logical approach to structuring and designing a website.

Content

Learn the history of the Internet and its evolution. Use services offered on the Internet, such as the Web, email, FTP file transfer, newsgroups, search engines, etc. Understand basic HTML programming language. Learn website creation software used by the industry. Develop knowledge about tree-structured menus and website structure. Integrate animated images, video and sound into a webpage. Successfully publish and manage a website, and successfully register the website with a search engine. Clearly define a target audience and build the site with the target audience in mind.

ART1214 Sound Design (3 cr.)

Objectives

Explore the expressive codes of sound language, in interactive multimedia. Understand the contribution made by sound in general and artistic sound effects in particular, in the creation of a multimedia production.

Content

Sound effects and sound design. The expression of sound, the storyboard and film music. The use of sound (perception, environment, esthetics, functions and codes, the audio spectrum, sound types, etc.) and the different formats or different standards used in their dynamics and maximization. Sound and music as elements of meaning and producers of meaning in an interactive multimedia application. The main facets of the sound environment used to create an exceptional soundtrack. Precision and flexibility of the major audio software packages.

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ART1215 Film, Television, Visual Arts and Multimedia (3 cr.)
Prerequisite: ART1104

Objectives
Learn the fundamental concepts of (digital and analog) film and television production and their uses in interactive multimedia. Learn to use special effects software to create special effects for film and television. Understand the use of information technologies applied to the arts while determining what visual arts contribute to interactive multimedia creation.

Content
History of art, using information technologies to identify its importance from a cultural and esthetic point of view. Production of works in film or television using computers and other interactive multimedia tools. Forms and concepts of interactivity. The importance of photography and poster art, as well as the major trends in the history of art.

ART1221 Graphic Design and Computer Graphics (3 cr.)
Prerequisite: ART1104

Objectives
Learn the basic concepts and methods used in modeling graphic objects, transform them and give them a realistic appearance. Become aware of the evolution of forms in time. Design and create visually, in a manner that efficiently communicates an idea or creates a specific atmosphere. Be able to deal effectively with all technical aspects of good visual communication. Acquire the ability to develop one's ideas in order to identify viable solutions to given situations.

Content
Graphic design and computer graphics in the context of multimedia application development. Creation of graphics for a multimedia application using 2D and 3D animation software. Techniques to enhance concepts. Computer-assisted animation: basic principles, key-frame animation, procedural animation, animation of articulated bodies, facial animation, animation based on the physical, behavioral animation. Computer-simulated reality component: virtual reality equipment, virtual reality systems, distributed virtual reality.

ART1227 Interactive Multimedia Application Programming Project (6 cr.) Prerequisite: ART1104

Objectives
Develop an ability for synthesis and critical thinking through the completion of a high-quality interactive multimedia final assignment, under the supervision of one or more professors. Demonstrate the integration of meaningful acquired knowledge in a project which synthesizes personal knowledge and professional skills developed as part of the multimedia program. Put the knowledge acquired during the program into practice and demonstrate an ability to adapt knowledge to specific, real-world situations.

Content
Create a multimedia application as part of a team of 5 to 6 students. Each team is created according to production needs and its organization mirrors that of a professional multimedia production team. At the end of the course, the team submits its work (a visual, interactive presentation) along with an oral presentation. As well, a technical report must be written in accordance with professional standards, which includes the topic, the objectives, the methodology, a presentation of the results, an analysis of the results, the conclusions and recommendations. The project will be made available for trial use through a public presentation. Data must be gathered on the presentation, the creation of the multimedia application, communication strategies reflected on (the criteria which motivated the choice of one concept over another) and an analysis of the process and results.

ART1401 Basics I: The Basics of 3D Creation (3 cr.)

Objectives
Master the theoretical ideas and basic techniques for using a 3D environment and all of its elements correctly. Develop conceptual abilities for using software designed for 3D modeling and animation. Demonstrate how 3D software can become an effective tool or medium within a multimedia project (computer-generated pictures, simulations, prototyping, animation of environment and actors, integration and composition at the editing desk, etc.).

Content
Introduction to 3D theory. Exploration of basic modeling techniques and modifiers within 3D creation software. Design of simple and complex 3D environments. Learn about parameters specific to the environment, to the creation of materials, textures, simple and volumetric lighting, and parameters specific to cameras, image rendering and formats. Scripting, design and production of a simple animation.

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