3D Modeling for Animation & Games

DIPLOMA PROGRAM

LaSalle College
Vancouver

QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4	QUARTER 5	QUARTER 6	QUARTER 7
CCM101 Drawing and Perspective	CCM141 Life Drawing	CCM191 Life Drawing II	CCM241 Life Drawing III	Elective	Elective	Elective
CCM111 Design and Color Theory	MAG151 Sculpture	MAG201 Character Modeling	CCM271 Rigging	MAG351 Character Modeling II	Elective	Elective
CCM100 Introduction to Digital Arts	CCM161 Concept Design and Illustration	MAG251 Environmental Modelling	MAG401 Brush Based Modeling	MAG441 Matte Painting	CCM391 Script Programming	CCM411 Portfolio II
CCM131 Basic 3D Concepts	CCM181 3D Modeling I	CCM221 3D Animation I	CCM261 Portfolio I	MAG321 Modeling Studio I	MAG322 Modeling Studio II	ANI323 Final Diploma Capstone
CCM121 Digital Imaging	CCM231 Materials and Textures I	CCM281 Lighting and Rendering I	MAG331 Materials and Textures II	MAG381 Lighting and Rendering II	MAG330 Modeling for Production	

10 Technical Arts Courses	+	1 Team Courses	+	6 Design Courses	+	7 Advanced Courses	+	5 Capstone Courses	+	5 Elective Courses	=	TOTAL
30 credits		3 credits		18 credits		21 credits		18 credits		15 credits		105 CREDITS

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3D Modeling for Animation & Games

COURSE DESCRIPTIONS

QUARTER 1

CCM101 DRAWING & PERSPECTIVE
This course is a fundamental drawing course where the students will explore various arts and media and learn to use a variety of drawing tools. This course involves the observation and translation of three-dimensional form into two dimensional drawings. Starting with simple shapes and progressing to more complex organic forms, students will build skill levels in composition, line quality, and use of tone.
Credits: 3

CCM111 DESIGN & COLOR THEORY
A presentation of the basic elements and principles of design and color theory will be made in this course. The student will develop a firm foundation to lay out and organize design elements. This course also explores the theories regarding physical perception and design aspects of color. Exercises in contrast, balance; harmony, spatial perception, and symbolism will be used to demonstrate the unique communication properties of color.
Credits: 3

CCM100 INTRODUCTION TO DIGITAL ARTS
This course explores contemporary digital media arts competencies and how they relate to different specializations within computer graphics industries. Through practical project based assignments students will develop theoretical knowledge of digital color theory and its usage in contemporary digital video, imaging, and gaming. Students will also develop a deeper understanding of design concepts in digital 2D & 3D media arts.
Credits: 3

CCM131 BASIC 3D CONCEPTS
This course introduces students to the basic concepts of working in 3D applications. Through in-class demonstrations with accompanying labs as well as project based assignments, students will develop the fundamental skills required to model, surface, texture, animate, and render 3D content.
Credits: 3

CCM121 DIGITAL IMAGING
Students develop basic image manipulation skills in a raster-based computer environment.
Credits: 3

QUARTER 2

CCM141 LIFE DRAWING I
This is a fundamental drawing course where students explore the concepts of structure, volume, proportion, weight, and force in human gesture drawing.
Credits: 3

MAG151 SCULPTURE
Students will employ elements and principles of design, human anatomy, and figure drawing as a basis for perceiving and executing sculptures of physical forms. Additive and subtractive methods will be practiced. Students will use a variety of materials and techniques to develop their skills and understanding of sculpture and its relationship to digital 3D modeling and animation.
Credits: 3

CCM161 CONCEPT DESIGN AND ILLUSTRATION
This course focuses on prop, vehicle, environment, and character design. Students explore the concept design and development process to create several drawings from thumbnail sketch to inked final.
Prerequisite: CCM101 Drawing and Perspective
Credits: 3

CCM181 3D MODELING I
This course covers modeling techniques used for building organic and hard surface objects and environments in 3D software.
Prerequisite: CCM131 Basic 3D Concepts
Credits: 3

CCM231 MATERIALS &TEXTURES I
This course introduces students to materials, textures, and lighting strategies to add detail and realism to geometry without adding geometric complexity. Students use 3D modeling software to simulate real world surfaces using reflection, refraction, and sub-surface scattering.
Prerequisite: CCM131 Basic 3D Concepts
Credits: 3

QUARTER 3

CCM191 LIFE DRAWING II
Life Drawing II provides students with the anatomical knowledge required to be successful as an animator, character modeler, character rigger or character designer. Students will study human form and its relationship to skeletal and muscle structure.
Prerequisite: CCM141 Life Drawing I
Credits: 3

MAG201 CHARACTER MODELING
This course covers modeling techniques used for building three dimensional characters. Students will explore techniques of character modeling and various approaches to figure construction.
Prerequisites: CCM181 3D Modeling I
Credits: 3

MAG251 ENVIROMENT MODELLING
This course explores 3D environmental, modeling and scene layout. Students will continue to develop their basic modeling and texturing skills as well as learning to plan and design.
Prerequisite: CCM181 3D Modeling I
Credits: 3

CCM221 3D ANIMATION I
Students will study timing and weight through a series of projects designed to demonstrate the principles of animation. Issues such as keyframing, in-betweening, and cycling will be addressed.
Prerequisite: CCM131 Basic 3D Concepts
Credits: 3

CCM281 LIGHTING AND RENDERING I
This course introduces students to lighting and camera strategies for computer generated images. Students analyze real world lighting and cameras, and apply the theories to the digital environment.
Prerequisite: CCM181 3D Modeling I
Credits: 3

QUARTER 4

CCM241 LIFE DRAWING III
Life Drawing III provides students with the anatomical knowledge required to be successful as an animator, character modeler, character rigger or character designer. Students will study human form and its relationship to skeletal and muscle structure.
Prerequisite: CCM191 Life Drawing II
Credits: 3

CCM271 RIGGING
The purpose of this course is to demystify character setup. The character rig is broken down into its component parts and animation tested throughout the course. Each assignment is evaluated based on functionality, performance, and organization. Upon completion, each student will have created and tested a complete character set up and have the necessary skills to rig their own characters.
Prerequisites: CCM181 3D Modeling I, CCM221 3D Animation I
Credits: 3

MAG221 BRUSH BASED MODELING
The course covers brush based software user fundamentals. Students will model a character in a brush based3D application using geometry from other software programs and learn to generate characters in the brush based package. Students will revisit sculpting basics and tools, create poly mesh groups layers and levels, create assets within the software and develop them with multiple tool and skill sets.
Prerequisites: MAG201 Character Modeling
Credits: 3

CCM261 PORTFOLIO
This course serves as a mid-program checkpoint. Students assemble and critique works from completed courses, research potential employers, design a production schedule for the duration of their studies, and create and deliver a Powerpoint presentation of final portfolio goals. Students also have the option of creating and presenting a pitch package for consideration in the team production courses.
Prerequisite: Permission of the Academic Chair
Credits: 3

MAG331 MATERIALS &TEXTURES II
In this course students will explore advanced materials, textures, and lighting strategies to replicate real-world surface properties in digital environments. Students will apply appropriate physically plausible and artistic BxDF surface materials to geometry, with an attention to scene look development, design and realism.
Prerequisite: CCM231 Materials and Textures I
Credits: 3

QUARTER 5

ELECTIVE
Please inquire about elective offerings via your Academic Advisor and/or your Academic Department Director.
Credits: 3

MAG351 CHARACTER MODELING II
This course provides an opportunity for students to prepare an advanced character model for use in their portfolio. The student will create a production plan with milestones from design through to final presentation.
Prerequisites: MAG201 Character Modeling
Credits: 3

MAG441 MATTE PAINTING
This course explores and integrates design and technology to develop matte paintings, virtual sets and digital backgrounds. Students acquire the knowledge and practical skill sets for digital matte painting production.
Prerequisite: CCM181 3D Modeling I, CCM121 Digital Imaging I
Credits: 3

MAG321 MODELING STUDIO I
This course is a studio where students will begin development for their multifaceted assignment that will be continued in the Modeling Studio II course. The student will learn how to manage their time, evaluate project risk, solve problems and complete aspects of their capstone project.
Prerequisite: CCM261 Portfolio I
Credits: 3

MAG381 LIGHTING & RENDERING II
In this course students will further explore lighting and rendering strategies in both a technical and a design context. Additionally, students will be introduced to advanced render output strategies and how various arbitrary output variables are utilized by compositors in a production environment.
Prerequisite: CCM281 CG Lighting and Rendering I
Credits: 3

QUARTER 6

ELECTIVE
Please inquire about elective offerings via your Academic Advisor and/or your Academic Department Director.
Credits: 3

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Credits: 3

CCM391 SCRIPT PROGRAMMING
This course is focuses upon providing students with a strong foundation in script programming for use with 3D computer generated software applications.
Prerequisite: CCM181 3D Modeling I
Credits: 3

MAG322 MODELING STUDIO II
This course is a studio where students will continue development for their multifaceted assignment that will be completed in the final capstone project course.
Prerequisite: MAG321 Modeling Studio I
Credits: 3

MAG360 MODELING FOR PRODUCTION
In this course, 3D modeling students will create assets for media arts production classes.
Prerequisite: CCM261 Portfolio I
Credits: 3

QUARTER 7

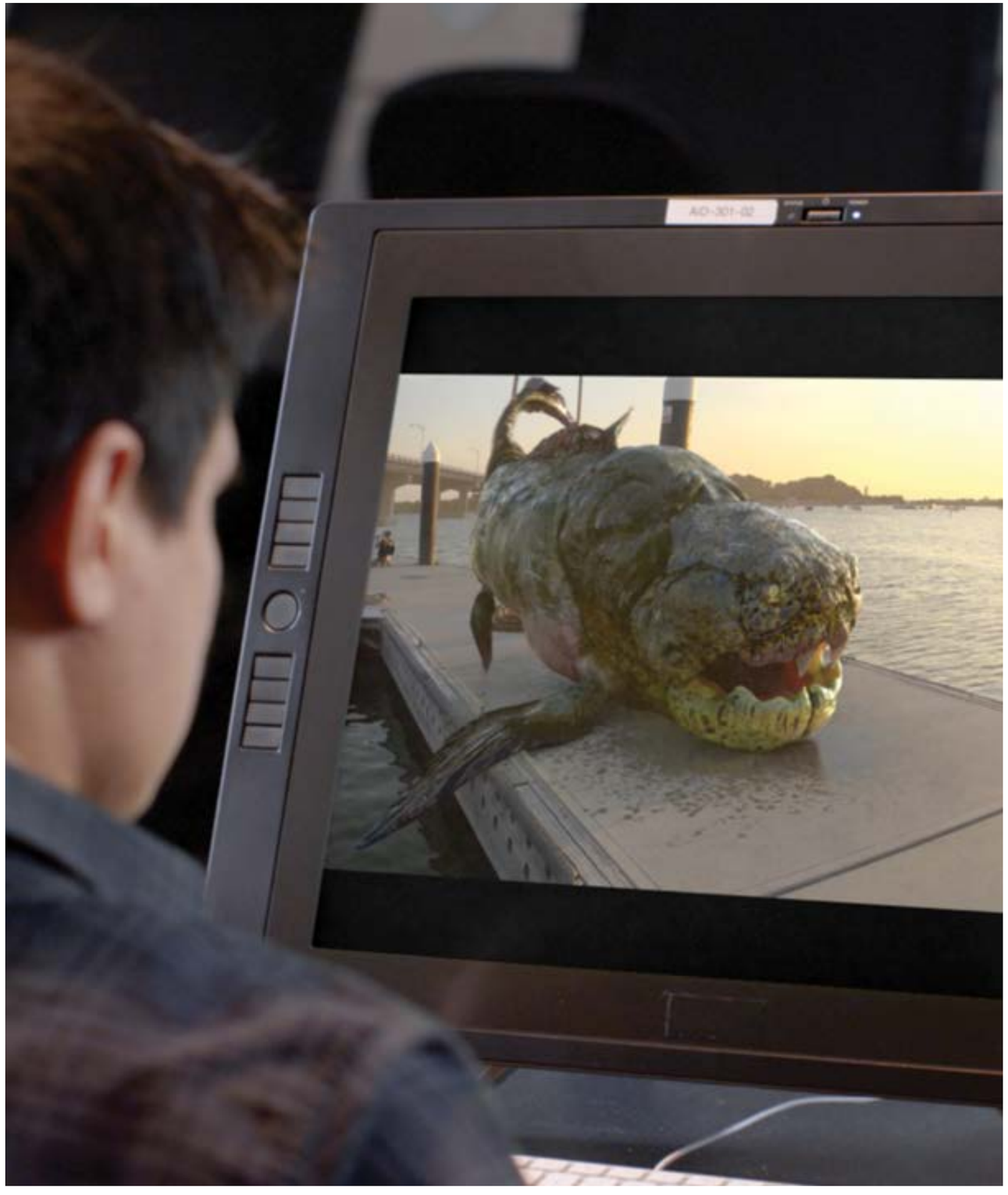
ELECTIVE
Please inquire about elective offerings via your Academic Advisor and/or your Academic Department Director.
Credits: 3

ELECTIVE
Please inquire about elective offerings via your Academic Advisor and/or your Academic Department Director.
Credits: 3

CCM411 PORTFOLIO II
This course focuses on the completion of a student's portfolio and enables the student to begin their search for entry-level employment upon graduation. Students will present work from their portfolio for review (critique) and obtain an assessment of the quality of their work in order to make necessary enhancements. The student portfolio consists of two major components. The first component consists of a self-promotional package that includes business cards, resume, on-line propagation and web site. The second component is the assembly and assessment of the student's capstone project.
Co-requisite: ANI323 Final Diploma Capstone
Credits: 3

ANI323 FINAL DIPLOMA CAPSTONE
This course is a studio where students will complete their multifaceted assignment which serves as a culminating capstone project.
Prerequisite: MAG322 Modeling Studio II
Credits: 6

***Where no prerequisite is provided, none is required.*
**Course descriptions describe the learning opportunities that are provided through the classroom and coursework. It is each student's responsibility to participate in the activities that will lead to successfully meeting the learning outcomes.*



LaSalle College
Vancouver

3D MODELING FOR ANIMATION & GAMES KIT

price: $265.00

1. Paper Newsprint Pad 10413401
2. Sketchbook (9x12) 10412367
3. Kroma Paint Set of 8 10466650
4. Paint Tray 10413197
5. Col-Erase Blue Pencils (2) 10412752
6. Col-Erase Red Pencils (2) 10412596
7. Colour Pencil Set of 24 10460290
8. Paint Brush 10432136
9. Pencil Sharpener 10412886
10. 18"Metal Ruler with Corked Back 10412756
11. Document Tube 10431313
12. Ai Metropolis Bag 10422489
13. Pencil Set of 6 10412657
14. Binder 1.5" View White 10450048
15. Mouse Pad 10449677
16. Flash Drive USB 128GB 10471906
17. Eraser Vinyl 10410837

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