



COURSE OUTLINE : ART 231
D Credit – Degree Applicable
COURSE ID 001090
Cyclical Review: September 2020

COURSE DISCIPLINE : ART
COURSE NUMBER : 231
COURSE TITLE (FULL) : Inorganic Modeling
COURSE TITLE (SHORT) : Inorganic Modeling
ACADEMIC SENATE DISCIPLINE: Art

CATALOG DESCRIPTION

ART 231 provides foundation instruction in the modeling of inorganic objects, such as vehicles, furniture, or buildings. The course begins with a thorough review of the modeling interface. Students learn to apply polygonal modeling techniques to create game-ready or cinema-ready three-dimensional objects. Methods of optimizing geometries for output are covered.

CATALOG NOTES

Note: Current industry standard digital animation software (Maya or ZBrush) will be used.

Total Lecture Units: 2.00

Total Studio Units: 1.00

Total Course Units: 3.00

Total Lecture Hours: 36.00

Total Studio Hours: 36.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 72.00

Total Out-of-Class Hours: 90.00

Prerequisite: None.



ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1					No

EXIT STANDARDS

- 1 Use polygon modeling techniques to model a vehicle, building, or piece of furniture;
- 2 describe polygon modeling tools;
- 3 diagnose and correct problems within a given geometry;
- 4 design the topology of an inorganic object.

STUDENT LEARNING OUTCOMES

- 1 Design topology of a 3-d asset, such as a vehicle, device, or structure
- 2 Use basic software tools to create hard-surface assets in design software application

COURSE CONTENT WITH INSTRUCTIONAL HOURS

	Description	Lecture	Studio	Total Hours
1	Polygon Tools <ul style="list-style-type: none"> • The plane • The extrude edge tool • The extrude face tool • The merge edge and merge multiple edge tool • The sculpt geometry tool • The split polygon tool • The split edge ring tool • Triangle count 	9	0	9
2	The Inorganic Object Prior to Modeling <ul style="list-style-type: none"> • Composite topologies • Polygons or nurbs • Optimal topologies 	9	0	9
3	Project Preparation and Execution <ul style="list-style-type: none"> • Image planes • Management of nodes • Axial orientation 	9	0	9
4	Troubleshooting Surfaces <ul style="list-style-type: none"> • Non-manifold geometry • Zero length • The polygons-cleanup tool • Rebuild geometry 	9	0	9
5	Laboratories Emphasizing Technical and Aesthetic Development	0	36	36
				72



OUT OF CLASS ASSIGNMENTS

- 1 3D topology for a human head or body;
- 2 3D topology for an animal head or body;
- 3 3D topology for an inanimate object.

METHODS OF EVALUATION

- 1 projects and assignments;
- 2 midterm and final examinations;
- 3 final project.

METHODS OF INSTRUCTION

- Lecture
- Laboratory
- Studio
- Discussion
- Multimedia
- Tutorial
- Independent Study
- Collaboratory Learning
- Demonstration
- Field Activities (Trips)
- Guest Speakers
- Presentations

TEXTBOOKS

Title	Type	Publisher	Edition	Medium	Author	ISBN	Date
"Maya Learning Channel."	Required	YouTube, n.d.		electronic	YouTube		2020