

Portfolio Requirements:

Students taking **Demo Reel Research** and **Demo Reel Production** will declare a specific focus in Demo Reel Research and provide a production schedule to accommodate their objectives. Projects will be due on **Week 4, Week 7 and Week 11**.

NOTE: Incomplete projects will be given the grade of ZERO. *Two incomplete projects will result in failure within the course. No exceptions.*

Students are required to find a faculty mentor to sign off on their weekly progress.

Students are expected to show up on time. **Students who are late to class on presentation days will not be allowed to present their work and take a ZERO on the project.**

Hard Surface Modeling deliverables:

6 fully textured models (assets, buildings, mechanical objects) with process work from concept to final.

- 3 models will be complete in Demo Reel Research
- 3 will be completed in Demo Reel Production

Environment Modeling deliverables:

6 environments (interior / exterior) with process work (including references). The environments will be rendered as a fly-through along with individual stills.

- 3 environments will be completed in Demo Reel Research
- 3 environments will be completed in Demo Reel Production

Organic Modeling:

3 character models (fully lit and textured) in Demo Reel Research.
3 character models (fully lit and textured) in Demo Reel Production.

Models will be placed on an environmental dais or platform that compliments / matches the character's world.

GAD Character Animation:

9 unit animations using a pre-existing, properly rigged character. Each unit animation will include 3 cycles - an attack cycle, a death cycle and an idle cycle that matches the personality and attitude of the character (*optional*) one lip-synch.

- 5 unit animations will be completed for Demo Reel Research
- 4 unit animations will be completed for Demo Reel Production

MAA Character Animation:

6 Character Animation pieces with a focus on ACTING and personality, incorporating the 12 principles of animation will be required for Character Animators. The animations can be all 2D or all 3D or a mix of both, depending upon the focus of the student.

- 3 11 second animations will be completed for Demo Reel Research
- 3 11 second animations will be completed for Demo Reel Production

Storyboard Artist:

A total of 6 Production boards will be required. Boards will showcase a variety of subject matter with specific focuses in the following areas:

atmosphere
dialogue
action
establishing shots

Boards will be fully inked and shaded and include captions. Each frame will measure 4" x 6" in size and occupy an approximately 11" x 17" space. Storyboards will be professionally mounted on black matte, printed at 300dpi CMYK. The matte board will be labeled as to its contents. The dimensions of the matte will include a 3/4" border on the left, top and right side with a 1" border on the bottom.

- 3 production storyboards will be completed in Demo Reel Research
- 3 production storyboards will be completed in Demo Reel Production (each board must have a *minimum* of 15 panels per board)

Technical Animator:

6 full rigs will be required for the technical animator. Rigs will be shown in a video format and show off the full extent of the rig in terms of its expressiveness and articulation.

- 3 rig demos will be completed in Demo Reel Research
- 3 rig demos will be completed in Demo Reel Production

The Rubrics for Each Field of Focus is described on the pages that follow.

Please note: Zeros are recorded for projects that are **incomplete** or **not turned in**.

Organic Modeling Rubric

	Excellent (4)	Very Good (3)	Good (1)	Average (1)	Poor (0)
Anatomy 20 points	Characters are proportionally accurate and anatomically correct. Excellent attention paid to anatomical engineering and body mechanics.	Characters are proportionally accurate and anatomically correct.	Characters are proportionally accurate. Some anatomical errors.	Characters are proportionally accurate. Incorrect anatomy, musculature.	Character proportions are incorrect. No display of proper anatomy, body mechanics.
Tone, Value, Color and Texture 20 points	Harmonious use of complimentary and triadic color selections. Rhythmic use of tonal values. Textures are accurate and believable or show artistic stylization.	Communicates with complimentary and triadic color selections. Rhythmic use of tonal values. Textures are accurate and believable or show artistic stylization.	Communicates with complimentary color selections. Textures are believable or show artistic stylization.	Communicates with complimentary color, but no sense of color harmony. Textures lack tonal value and/or detail.	No sense of color harmony or color relationships. Textures lack tonal value and detail.
Modeling Topology 20 points	Polygonal topology emphasizes form and fluidity of surface. Efficient use of edge loops and vertices. Creative placement of edge loops to reduce poly count and/or fluidity of surface.	Polygon topology emphasizes form and fluidity of surface. Efficient use of edge loops and vertices.	Topology is clean and efficient with well placed vertices and edges. Little or no dense areas in mesh.	Topology has excessive polygons. Surface is disrupted by poor vertex placement.	Mesh is poorly built. Uneven polygonal count throughout form.
Vertex Normal Texturing 20 points	Normal Texturing emphasizes all aspects of original Hi-Res model detail. Concave and convex areas of the normal texture are clear and convincing	Normal texturing emphasizes all aspects of original Hi-Res model detail, matching the Hi-Res model's levels of micro/macro detail.	Normal texturing is baked correctly, but texture contrast levels have not been adjusted to match original hi-res model's level of micro/macro detail.	Normal texturing NOT baked out correctly and texture contrast levels have not been adjusted to match original Hi-Res model's level of micro/macro detail.	No concept of Normal Texture baking. Unable to bake a normal texturing from a Hi-Res data source to a texture map for interactive use.
Coloring and shading 20 points	Great use of space, texture, and form. Highlights and shadows enhance the character's overall look and feel.	Good use of space, texture, and form. Highlights and shadows convey character's overall look and feel.	Limited use of space, texture, or form. Highlights and shadows have minor issues that conflict with character's overall look and feel.	Limited use of space, texture, or form. Highlights and shadows are inconsistent with established light source.	Flat colors utilized. No established light source. Lack of color theory application.

Total Possible Points: 100

Storyboarding Rubric

	Excellent (4)	Very Good (3)	Good (1)	Average (1)	Poor (0)
Storytelling 20 points	Professional and strong sense of continuity and pacing. Visual information is clear in its presentation.	Strong sense of continuity and pacing, strong sense of clarity within visual information.	Competent sense of continuity and pacing; partial sense of clarity with visual information.	Poor sense of continuity and pacing; minimal sense of clarity with visual information.	No sense of continuity and pacing; no clarity with visual information.
Composition 20 points	Professional use of foreground, midground, and background elements; complete understanding of framing and angle structure.	Strongly established foreground, midground, and background elements; good understanding of framing and angle structure.	Competently established foreground, midground, and background elements; basic understanding of framing and angle structure.	Poorly established foreground, midground, and background elements; little understanding of framing and angle structure.	Foreground, midground and background elements not defined. No sense of framing or angle structure.
Technique 20 points	Professional sense of materials and techniques to establish mood and scene.	Strong sense of materials and techniques to establish mood and scene.	Competent sense of materials and techniques to establish mood and scene.	Poor sense of materials and techniques to establish mood and scene.	No sense of materials and techniques to establish mood and scene.
Aesthetics 20 points	Professional sense of design. Most pleasing to target demographic.	Strong sense of design. Very pleasing to target demographic.	Competent sense of design. Adequately pleasing to target demographic.	Poor sense of design. Not pleasing to target demographic.	No sense of design. Inadequate for target demographic.
Consistency 20 points	All characters and objects stay on physical and behavioral model. Complete consistency to established shot description rules and execution of visuals.	Most characters and objects stay on physical and behavioral model. Strong consistency to established shot description rules and execution of visuals.	Some characters and objects stay on physical and behavioral model. Partial consistency to established shot description rules and execution of visuals.	Few to little characters and objects stay on physical and behavioral model. Minimal consistency to established shot description rules and execution of visuals.	No characters and objects stay on physical and behavioral model. Does not remain consistent to established shot description rules and execution of visuals.

Total Possible Points: 100

Mechanical Unit Animation

	Excellent (4)	Very Good (3)	Good (1)	Average (1)	Poor (0)
MECHANICAL UNIT RIGGING 20 points	Character Rig Setup matches physical dynamics of the character mesh. Anatomical structure is accurate with believable mechanics.	Character Rig Setup matches physical dynamics of the character mesh. But Anatomical structure is accurate with stylized mechanics.	Character Rig Setup matches physical dynamics of the character mesh.	Character Rig Setup does not match physical dynamics of the character mesh. Anatomical structure is inaccurate.	No sense of proper Character Rig Setup. Character mesh distorts when animated.
MECHANICAL UNIT SETUP 20 points	Mechanical Unit Setup matches physical dynamics of the unit's geometry. Structural linking and parenting is accurate with believable mechanics.	Mechanical Unit Setup matches physical dynamics of the mechanical unit's geometry. Structural linking and parenting is accurate.	Mechanical Unit structural setup of linking and parenting is accurate to overall design.	Mechanical Unit Setup does not match physical dynamics of the overall design. Essential animated elements such as wheels and turrests are missing.	No sense of proper Mechanical Unit setup in relationship to parenting.
MECHANICAL UNIT ANIMATION 20 points	Mechanical Unit Animations are believable and exciting to the viewer. Unit Animations clearly illustrate the function and structure of the unit. Animations blend smoothly from the default idle position.	Mechanical Unit Animations are believable and exciting to the viewer. Unit Animations clearly illustrate function and intent of animated unit.	Mechanical Unit Animations are believable to the viewer. Unit Animations illustrate the function and intent of the unit.	Mechanical Unit Animations are not believable or exciting to the viewer. The function and intent of unit are unclear. Animation is choppy, forced or rigid.	Mechanical Unit Animations are incomplete. Lack clear understanding of form and function of unit. Poor keys and IK/FK blending.
FLUIDITY OF MOTION 20 points	All movements are smooth and fluid, with strong arcs. The degree of fluidity of movement is consistent with the characters' personality. Cycles are smooth and transition seamlessly.	Most movements are smooth. Most movements have arcs, with very little mechanical, linear motion. The degree of fluidity suits the actions depicted and creates a definite mood or emotion.	Some movements are smooth. Some movements have arcs, with very little mechanical, linear motion. The degree of fluidity somewhat suits the actions depicted and creates a definite mood or emotion.	Animation is very jerky and jittery. Motion is too linear or mechanical, and does not flow in smooth arcs.	Lacks a clear understanding of the animation process.
WEIGHT AND SUBSTANCE 20 points	Excellent sense of weight in the characters and objects. Imparts a definite personality to the characters.	Good sense of weight in the characters and objects. Creates a definite mood or emotion in the scene.	Some sense of weight in characters and objects. Some inconsistency between object and perceived weight.	Characters and objects seem "floaty" and weightless. Weight conveyed is inconsistent with design of character or object.	Lacks a clear understanding of character weight and balance.

12 PRINCIPLES 20 points	Excellent use of all 12 Principles of Animation. Animation looks natural and believable.	Good use of all 12 Principles of Animation. Most of the animation looks natural and believable.	Good use of most of the 12 Principles of Animation. Most animation looks believable and natural.	Successful use of some of the 12 Principles of Animation. Animation looks forced or rigid.	Basic principles of animation are not evident. Animation is choppy, rigid, and undefined.
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Total Possible Points: 120

3D Environment Design

	Excellent (4)	Very Good (3)	Good (1)	Average (1)	Poor (0)
DESIGN / SEMBLANCE (20 points)	The model/scene is designed exceptionally well, or it resembles the reference perfectly.	The model/scene is well designed, or it closely resembles the reference.	The model/scene is designed adequately, or it resembles the reference fairly.	The design does not communicate well, or it has a passing resemblance to the reference.	The model/scene is poorly designed, or it does not resemble the reference.
ANATOMY / STRUCTURE (20 points)	The anatomy or the structure of the model is well formed.	The anatomy or the structure of the model is fairly correct.	The anatomy or the structure of the model is believable.	The anatomy or the structure of the model has few problems.	The anatomy or the structure of the model has obvious problems.
MESH TOPOLOGY (20 points)	The mesh is clean and the polygons are evenly distributed. Topology is correct.	The mesh is clean and the polygons are distributed appropriately. Topology is mostly correct.	The mesh is clean and there are few problems with polygon layout. Topology has few errors.	Mesh is mostly clean. Polygons are laid out unevenly. Topology has errors but is fixable.	Mesh is messy. Polygons are laid out unevenly. Topology is bad.
UV and TEXTURE (20 points)	There are no overlapping UVs. The UV template is organized and used efficiently. Textures don't stretch and are seamless. Texture resolution is consistent. The texture brings the model to life.	There are no overlapping UVs. The UV template is organized and used efficiently. Textures don't stretch and are seamless. Texture resolution is consistent. The texture enhances the model.	There are no overlapping UVs. The UV template is organized. Textures don't stretch and are seamless. Texture resolution is consistent.	There are no overlapping UVs. The UV template is messy. There is a little stretching, inconsistent resolution, or vague seams on the texture.	The UVs overlap. The UV template is messy. There is obvious stretching, inconsistent resolution, or obvious seams on the texture.
SHADING and LIGHTING (20 points)	The shader brings the model to life. Lighting elevates the model and it creates a compelling mood.	The shader enhances the model. Lighting enhances the model and mood.	The shader is used appropriately. Lighting works for the model and mood.	The shader does not distract from the model much. Lighting has issues but it does not distract from the model or scene entirely.	The shader does not work for the model. Lighting does not work for the model or scene.

Total Possible Points: 100

Character Animation

	Excellent (4)	Very Good (3)	Good (1)	Average (1)	Poor (0)
ANIMATION (20 points)	All movements are smooth and fluid, with strong arcs. No pops or jerks in the movement that break the suspension of disbelief. Excellent use of follow-through and overlap in the motion.	Most movements are smooth and fluid, with strong arcs. Hardly any pops or jerks in the movement that break the suspension of disbelief. Good use of follow-through and overlap in the motion.	Movements are fairly smooth and fluid, with decent arcs. Very few pops or jerks in the movement that break the suspension of disbelief. There is some follow-through and overlap in the motion.	A few movements are angular and follow straight-line paths instead of arcs. Few pops or jerks in the movement that break the suspension of disbelief. A few movements are stiff and lack follow-through and overlap.	Few smooth movements, with more straight-line movements. Several pops or jerks in the movement that break the suspension of disbelief. Stiff movement with very little follow-through and overlap.
WEIGHT and SUBSTANCE (20 points)	Excellent sense of weight in the characters and objects. Good use of squash and stretch that enhances the depicted actions.	Good sense of weight in the characters and objects. Appropriate use of squash and stretch that supports the depicted actions.	Most objects have a decent sense of weight, with very few appearing floaty. Adequate use of squash and stretch that suits the depicted actions.	Few characters and objects seem floaty or weightless. A few objects don't squash or stretch appropriately.	Characters and objects seem too floaty or weightless, and don't squash or stretch appropriately.
STAGING (20 points)	All poses are clear and easy to read, and depict a clear personality. Excellent use of anticipation, line of action, eyelines, and positive/negative space. Shot compositions are clear and creative, and enhance the mood of the scene.	Most poses are clear and easy to read, and depict a clear personality. Good use of anticipation, line of action, eyelines, and positive/negative space. Most shot compositions are clear and support the mood of the scene.	In general, poses are easy to read. Adequate use of anticipation, line of action, eyelines, and positive/negative space. Shot compositions are fairly clear and suit the mood of the scene.	A few poses are hard to read or unclear. Few issues with anticipation, line of action, eyelines, and positive/negative space. Shot compositions are clear enough to see what's happening in the scene.	Many poses are hard to read or unclear. Noticeable issues with anticipation, line of action, eyelines, and positive/negative space. Shot compositions are not always clear and it gets hard to see what's happening in the scene.
TIMING (20 points)	All characters & objects move at speeds consistent with the forces applied to them. Excellent use of holds, slow-in, slow-out and snap to punctuate the movement and create a compelling rhythm in the scene.	Most characters & objects move at speeds consistent with the forces applied to them. Good use of holds, slow-in, slow-out and snap to punctuate the movement and create an entertaining rhythm in the scene.	Few inconsistencies in the speed of movement. Adequate use of holds, slow-in, slow-out and snap to punctuate the movement and create some sense of rhythm in the scene.	Some inconsistencies in the speed of movement. There is some attempt to use holds, slow-in, slow-out and snap to punctuate the movement.	Severe inconsistencies in the speed of characters & objects. Movements are "swimmy" with very little use of holds, slow-in, slow-out and snap.

ACTING (20 points)	All characters act in a consistent, believable and entertaining way. Excellent use of body language, facial expressions and lip-sync to create a distinct personality in the characters' actions. The conflict in the scene is clear and engaging.	Most characters act in a consistent, believable and entertaining way. Good use of body language, facial expressions and lip-sync to create a distinct personality in the characters' actions. The conflict in the scene is clear and entertaining.	Believable acting in general. Adequate use of body language, facial expressions and lip-sync to impart personality to the characters' actions. The conflict in the scene is clear and believable.	Some problems in the acting. The body language, facial expressions and lip-sync have a few problems that distract from the character's performance. There is some sense of conflict in the scene.	Severe problems in the acting. The body language, facial expressions and lip-sync have many issues that distract from the character's performance. There is no clear sense of conflict in the scene.
12 PRINCIPLES (20 points)	Excellent use of all 12 Principles of Animation. Animation looks natural and believable.	Good use of all 12 Principles of Animation. Most of the animation looks natural and believable.	Good use of most of the 12 Principles of Animation. Most animation looks believable and natural.	Successful use of some of the 12 Principles of Animation. Animation looks forced or rigid.	Basic principles of animation are not evident. Animation is choppy, rigid, and undefined.

Total Possible Points: 120

Game Character Animation

	Excellent (4)	Very Good (3)	Good (1)	Average (1)	Poor (0)
CHARACTER UNIT RIGGING (20 points)	Character Rig Setup matches physical dynamics of the character mesh. Anatomical structure is accurate with believable mechanics.	Character Rig Setup matches physical dynamics of the character mesh. But Anatomical structure is accurate with stylized mechanics.	Character Rig Setup matches physical dynamics of the character mesh.	Character Rig Setup does not match physical dynamics of the character mesh. Anatomical structure is inaccurate.	No sense of proper Character Rig Setup. Character mesh distorts when animated.
CHARACTER UNIT ANIMATION (20 points)	Character Unit Animations are believable and exciting to the viewer. Unit Animations clearly illustrate personality and intent of the animated character. Animations blend smoothly from default Idle position. Seamless use of IK, FK, Footsteps, and or MoCap.	Character Unit Animations are believable and exciting to the viewer. Unit Animations clearly illustrate personality and intent of the animated character. Animations blend smoothly from default Idle position.	Character Unit Animations are believable and exciting to the viewer. Unit Animations match design and personality of the animated character.	Character Unit Animations are not believable or exciting to the viewer. Unit Animations lack illustrative quality. The personality and intent of the animated character is unclear. Animations are choppy and inconsistent.	Character Unit Animations are incomplete or lack clear understanding of key frame animation and or FK- IK blending.
FLUIDITY OF MOTION (20 points)	All movements are smooth and fluid, with strong arcs. The degree of fluidity of movement is consistent with the characters' personality. Cycles are smooth and transition seamlessly.	Most movements are smooth. Most movements have arcs, with very little mechanical, linear motion. The degree of fluidity suits the actions depicted and creates a definite mood or emotion.	Some movements are smooth. Some movements have arcs, with very little mechanical, linear motion. The degree of fluidity somewhat suits the actions depicted and creates a definite mood or emotion.	Animation is very jerky and jittery. Motion is too linear or mechanical, and does not flow in smooth arcs.	Lacks a clear understanding of the animation process.
WEIGHT and SUBSTANCE (20 points)	Excellent sense of weight in the characters and objects. Imparts a definite personality to the characters.	Good sense of weight in the characters and objects. Creates a definite mood or emotion in the scene.	Some sense of weight in characters and objects. Some inconsistency between object and perceived weight.	Characters and objects seem "floaty" and weightless. Weight conveyed is inconsistent with design of character or object.	Lacks a clear understanding of character weight and balance.
12 PRINCIPLES (20 points)	Excellent use of all 12 Principles of Animation. Animation looks natural and believable.	Good use of all 12 Principles of Animation. Most of the animation looks natural and believable.	Good use of most of the 12 Principles of Animation. Most animation looks believable and natural.	Successful use of some of the 12 Principles of Animation. Animation looks forced or rigid.	Basic principles of animation are not evident. Animation is choppy, rigid, and undefined.

Total Possible Points: 100

Hard Surface Modeling Rubric

	Excellent (4)	Very Good (3)	Good (1)	Average (1)	Poor (0)
Structural Engineering 20 points	Structural engineering is sound . Moving and static parts have logical placement with a strong sense of form following function.	Structural engineering is sound and believable. Moving and static parts have logical placement.	Structural Engineering is sound. Moving and static parts are placed well but lack believability	Structural engineering weak with poor placement and arrangement of parts.	No sense of believable or functional design.
Tone, Value, Color, Texture 20 points	Harmonious use of complimentary and triadic and color selections. Rhythmic use of tonal values. Textures are accurate and believable and show artistic stylization.	Communicates with complimentary and triadic color selections. Textures are accurate and believable and show artistic stylization.	Communicates with complimentary color selections. Textures are believable or show artistic stylization.	Communicates with complimentary color, but no sense of color harmony. Textures lack tonal value and/or detail.	No sense of color harmony or color relationships. Textures lack tonal value or detail.
Interactive Model 20 points	Polygonal topology emphasizes form and fluidity of surface. Efficient use of vertices and edge loops. Creative placement of edge loops to reduce poly count and/ or fluidity of surface.	Polygonal topology emphasizes form and fluidity of surface. Efficient use of vertices and edge loops.	Topology is clean and efficient with well placed vertices or edges. Little or no dense areas in mesh.	Topology has excessive polygons. Surface is disrupted by poor vertex placement.	Mesh is poorly built. Uneven polygonal count throughout form.
Vertex Normal Texturing 20 points	Normal Texturing emphasizes all aspects of original Hi-Res model detail. Concave and convex areas of the normal texture are clear and convincing	Normal texturing emphasizes all aspects of original Hi-Res model detail, matching the levels of micro/ macro detail.	Normal texturing is baked correctly, but texture contrast levels have not been adjusted to match original hi-res model's level of micro/ macro detail.	Normal texturing NOT baked out correctly and texture contrast levels have not been adjusted to match original Hi-Res model's level of micro/ macro detail.	No concept of Normal Texture baking. Unable to bake a normal texturing from a Hi-Res data source to a texture map for interactive use.

Composition 20 points	camera angles for renders suggest depth (foreground, middle ground, background). Excellent balance between positive and negative space. There is a point of focus that leads the viewer through the entire composition	Solid composition, good contrast between positive and negative space, but composition lacks depth. There is a point of focus that leads the viewer through the entire composition	Solid composition, good contrast between positive and negative space, but composition lacks depth. Missing a point of focus that leads the viewer through the entire composition	Composition is flat, too much negative space. Two competing elements serve as the area of focus.	Composition does not have any area of focus.
Lighting 20 points	Engaging use of color and lights to enhance the composition.	The lighting seems adequate but could be improved by a few additional lights, or by adjusting some of the existing lights, color intensity and/or position	The lighting seems adequate but could be improved by a few additional lights, or by adjusting some of the existing lights, color intensity and/or position	The 3D scenes appear to be a bit too light or too dark.	Poor lighting and/or lack of any color theory application.

Total Possible Points: 120