SYLLABUS CSE460 ANIMATION CAPSTONE – WINTER 2022

Course Description
Apply the knowledge gained in previous animation courses to produce an animated short film. Topics include story development, digital cinematography, creature and hard surface modeling, animatics, the principles of character animation, and rendering techniques.

Week 2
Facial Expression Reviews and Reference Reel Reviews

Weeks 3 - 10
Production Dailies
Mondays   Student Producers: Calendar Production Review
Tuesdays   Production Asset Reviews and Motion Tests
Wednesdays Story and Motion Reviews and Discussion
Thursdays   Reference and Production Reel Review
Fridays   Tech Demos

Fresh Eyes Screening is March 16, 2022

Meeting Schedule
TA/ Staff Meeting: Monday/Thursday - Monday 2:30-2pm and Thursday 10am-11:30am
Staff Meetings: Wednesday 1:30-2:30 PM
Staff / Leads / Groups: TBD

Important Emails:
- Support: support@cs.washington.edu
- Class: cse460@cs.washington.edu
- Full CSE Staff: cse458-staff@cs.washington.edu

Animation Capstone Production Golden Rules
1. The need to reach out to your staff and Instructor while working remotely is critical: In industry it is quite common for animators and animation production teams to work remotely. Most recently, entire teams are working from home because of the continued pandemic. We are all working out the proper and most efficient protocol as working styles and accessibility to equipment evolve. This is the time to be particularly mindful to make every effort to communicate any concerns and be compassionate and respectful of your team members. If there are any suggestions for improvement or there's a level of discomfort that impedes your progress, share this with your Instructor via email and/or request a zoom meeting. You may share a concern with any of the staff members. The staff will bring the concern to the Instructor for discussion. Staff do not make policy but can bring a concern to the Instructor's attention.

2. Stay Positive. Collaborative, interdisciplinary work is fraught with potential misunderstanding and confusion even under the best of circumstances. In industry it is critical to do your best to be a positive influence on the team and support the Director. It's important to communicate well, make constructive suggestions and to avoid dwelling on the negative. Turn it around and be respectful and helpful. Work well with your colleagues and Director so that the process moves as smoothly as possible for everyone.

3. Do something. If you have work assigned to you and that work is scheduled for a review, do something and make sure to submit it for review. You are much better off turning in work that is incomplete for the group/Director to review than to submit nothing at all. If you turn in nothing

the production group cannot progress. If you learn to present your work so that you get constructive feedback, we all can move forward.

4. Follow the direction and accept feedback from the Director, even when it doesn't seem like the right feedback to you. If you are asked to do something and you feel that you could do it in a different and better way, do the work that you were asked to do first, and do it the way you were asked to do it and then do the work the way you feel it should be done. When both are complete show the Director who will be able to see your work and decide which solution fits best. The Director will make the ultimate decision but showing your idea is much better than ignoring the Director's request and decision. If you can show a better solution and the Director agrees, then you will have helped the project move forward. if you don't do what you were asked to do by the Director, you will hold the whole team back.

5. The Director alone approves elements of the pipeline before they move forward. This is called "green lighting" the production work and is done in industry before each element can move to the next stage of the pipeline. No one else can green light production work because the process then becomes chaotic and unstable. This is consistent with industry and a very important aspect of any complex production. So, be careful not to move forward without the green light of the Director and if you think your work is ready to be greenlit, communicate with the staff and Director to receive clear feedback.

Grading
- **50% Professionalism (Participation and Collaboration)**
  - Ability to work in your group as both a leader in your area of expertise and productive team member to your group as a whole.
  - Ability to receive and apply feedback from the Director.
  - Ability to respond to communication from the Director promptly and respectfully.
  - Ability to take direction from Director and to be a positive influence on the class and the project.
  - Where direction seems inconsistent or unclear, to have the ability to bring the discrepancy to the Director for discussion in office hours if needed.
  - Ability to maintain a positive attitude toward the project.
  - Ability to follow through on work that has been assigned including meeting assigned deadlines.
  - Ability to make constructive suggestions by doing the work assigned and providing alternate technical and aesthetic solutions when needed.
  - Ability to communicate positively and constructively and to resolve concerns quickly and effectively.
  - Ability to take direction from student leads and appropriate team members.
  - Ability to provide appropriate and creative contributions to all aspects of the production.
  - Ability to provide constructive and proactive approaches to problem solving during dailies in support of the goals in the agenda.
  - Ability to work collaboratively to reach a common goal and vision including the ability to be flexible and fill in for a fellow student who needs help.
  - Ability to find someone to fill in if an emergency keeps you from finishing your work on time.
- **50% Productivity (Quality of Individual Work)**
  - Ability to meet deadlines.
  - Ability to organize your time and apply your skills.
  - Ability to complete assigned shots.
  - Ability to take on production tasks and to complete them.

- o Ability and willingness to take on extra work and do the job, especially contributions are made near the end of a production.
- o Ability to behave appropriately on your team.
- o Ability to effectively and efficiently lead the areas you've been assigned.
- o To provide weekly reports covering your leadership in your group and your support of other group members or the group as a whole.
- o To fill out and submit all self-critiques covering your assessment of how you have functioned in the class as well as all requested critique analysis worksheets that assess how you feel about the work you produced individually and as part of a group.

Production

Please Note:

Leads will Submit a weekly report to the Student Producers every Friday.

Student Producers - The Student Producers will collect and compile the Lead Reports and send the compilation to the Staff Alias bt Monday at 10 am. Student Producers will review and update Production Calendars . They will share Production Calendars with the class weekly on Mondays.

Production Team Roles:

Student Producers
Primary Staff: Barbara
Co-Leads: *Renee and Jenny*

Editing
Primary Staff: Blake
Supporting Staff: Xavier, Barbara
Lead: Graham
Members: Kat, Noelle

Reference
Primary Staff: Barbara
Leads: Kassidy
Members: Meagan, Renee, Aly, Shaylee, Noelle

Concept Art
Primary Staff: Amy
Supporting Staff: Xavier
Co-Lead: Noelle and Aly
Members: Hannah, Jasper, Kassidy, Kat ,Neha, Steven, Tiffany, Shaylee, Yae

Character Modeling
Primary Staff: Evan
Supporting Staff: Amy
Leads: Jessie
Members: Hannah, Jenny, Kassidy, Neha, Steven, Jasper

Prop Modeling
Primary Staff: Evan
Supporting Staff: Amy
Leads: Steven
Members: Jenny, Michael, Neha, Jessie

Surfacing
Primary Staff: Evan
Supporting Staff: Lillian
Leads: Neha
Members: Jasper, Jessie, Steven, Michael, Renee

Rigging
Primary Staff: Terrell
Supporting Staff: Oliver
Leads: Jasper
Members: Graham, Kassidy, Michael, Steven, Hannah

Scripting
Primary Staff: Oliver
Supporting Staff: Terrell
Leads: Renee
Members: Jenny , Michael, Neha, Tiffany

Layout
Primary Staff: Xavier
Supporting Staff: Lillian
Lead: Yae
Members: Graham, Meagan, Aly, Shaylee

Animation
Primary Staff: Xavier
Supporting Staff: Amy, Terrell
Co-Leads: Hannah and Jasper
Members: Graham, Jenny, Jessie Kassidy, Kat , Meagan, Tiffany, Aly, Yae, Shaylee

Facial Expression
Primary Staff: Amy
Supporting Staff: Evan
Lead: Meagan
Members: Hannah, Kassidy, Kat, Steven

Lighting and Rendering
Primary Staff: Oliver
Supporting Staff: Blake
Co-Leads: Tiffany and Noelle
Members: Graham, Jasper, Meagan, Michael, Renee ,Steven

Poster Title Credits
Primary Staff: Lillian
Supporting Staff: Evan
Lead: Shaylee
Members: Jessie, Kassidy, Kat, Neha, Tiffany, Aly, Yae

Digital Visual Effects
Primary Staff: Blake
Supporting Staff: Oliver
Leads: Michael
Members: Neha, Jasper, Jenny, Meagan

Post-Production
Primary Staff: Blake
Supporting Staff: Lillian
Leads: Jessie
Members: Graham, Michael, Renee

SFX/Music
Primary Staff: Blake
Supporting Staff: Xavier
Lead: Meagan
Members: Jenny, Renee, Aly, Yae

Outtakes
Primary Staff: Evan
Staff Support: Barbara
Lead: Kat
Members: Noelle, Aly, Yae, Graham, Renee

Animation Capstone Student Role Descriptions

Student Producer/Production Assistant
- Take notes during dailies
- Have notes reviewed by director
- Email notes out or have them posted online
- Drives the schedule of the production
- Identifying and managing lab resources

Editor
- Maintain an updated Premiere file that includes the film in its entirety. Update this file as shots are completed.
- Develop the timing and pacing between shots to deliver the story in the best possible way.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Concept Art
- Create several ideas for each prop model and character model through drawings, paintings, and other art for the film and idea development.
- Produce color palettes for shots and sequences with lighting group.
- Create visuals to help clarify the story.
- Assist in the design of the look and feel for the movie.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Reference
- Collect and provide reference for all scenes and models (based on the real world and other media).
- Work closely with the concept art team to maintain a consistent look and feel for the movie.
- Coordinate with prop and character modelers.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Prop Modeling
- Create all non-deformable assets for the film including set, props, decorations, items, etc.
- Collect multiple references for each model.
- Work with Concept Art to maintain the look and feel of movie.
- Keep models well labeled, clean, and rid of histories before importing into final scenes.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Character Modeling
- Create models for each of the characters in the film.
- Utilize proper topology to ensure proper deformation.
- Work closely with the rigging group to ensure proper anatomy.
- Iterate designs/models for characters over time based on feedback of the Director.
- Create facial models with the capability of emoting.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Rigging
- Build a system of movement for animators based on the film/character's specific needs.
- Ensuring proper skin deformation based on animation testing.
- Create skeletal structures for anatomically correct deformation.
- Work closely with the motion group to ensure that the animation controls are easy to use, and that all necessary animation can be achieved with the setups.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Scripting
- Set up shelf with all necessary/convenient scripts for production.
- Make sure class knows when shelf is updated, how to deploy it.
- Develop scripted tools for production as necessary.
- Address scripting concerns as they arise.
- Work closely with rigging and motion group to create modular rigging components.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Layout
- Develop 3D scenes faithful to the 2D storyboard using stand-ins for the props and characters.
- Include rough animation so the production team can get a sense of the timing of each shot.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Motion
- Develop animation of the characters, creatures, and props in the film.
- Define the personality and physicality of each character in the film, and ensure that they are animated consistently with those qualities across the animation team.
- Collect animation reference and analyze the acting and mechanics for each shot.
- Create planning sheets for each shot.
- Iterate shots daily based on feedback in dailies
- Attend weekly Motion check-ins
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Facial Expressions
- Create facial motion for all shots in the film based on collected acting reference.
- Determine the extremes of facial poses and create a style guide for consistency between shots.
- Coordinate with the rigging and motion teams.
- Test expressions to ensure that they work properly.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Surface (Texture, Shading, Matte Painting)
- Assign color and texture for 3D models that are true to the look and feel of the film.
- Design and test complex shading tricks such as animating shaders, and how to approach objects with complex features such as reflection and refraction.
- Create and add backdrops and matte paintings for shots that need them.
- Work with the lighting team to ensure that surface detail is visible in renders.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Lighting
- Work with the concept art team to produce color scripts for the film.
- Create lighting tests that convey the proper mood of each sequence based on the story bible.
- Make sure character lighting is effective in supporting the goal of each shot.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Rendering
- Work with the post-production team to create image sequences for each shot in the film.
- Support render farm workflow by overseeing and troubleshooting the render progress of each shot.
- Understand the use of render layers, and incorporate them into the render process as necessary.
- Review completed renders to ensure quality control and resend to the farm as necessary.
- Place composited shots and after effects files in the designated location for each shot.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Visual Effects Artists
- Create a workflow for developing special effects as needed in the production.
- Ensure consistency of effects across shots.
- Make sure effects are seen through to completion.
- Coordinate with the concept art team to obtain and apply effects concept art and boards.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Post-Production
- Set up a post-production pipeline to create methods of implementing special effects as needed in the production.
- Complete image processing on final renders to ensure consistency and desired look for the film.
- Composite layers and various other elements, effects, etc.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

SFX/Music
- Design and create audio and foley to support the story.
- Create and maintain an audio library.
- Coordinate with the editing team to incorporate sound into the final edit.
- Ensure that all sounds used are not copy-right protected or obtain permission for the use of copyrighted files.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Poster, Title, Credits (PTC)
- Design and create a poster that illustrates the theme of the film.
- Design, render and add approved text for the movie credits.
- Work with the Director to make sure the poster data gets to the printer in a timely manner.
- Work with the Director to create the defined vision for title and credits.
- Organize and create the credits for the film, ensuring that credit is given appropriately, and all information is correct.
- Maintain daily written feedback from the Director in the form of critiques and progress reports.

Outtakes
- Collect and organize technical mistakes and intentional bloopers.
- If there is sufficient time, find new and creative ways to use the characters and setting for use in original outtakes.
- Edit together an outtakes reel in a humorous, clear, and entertaining manner.