Description: The semester is focused purely on production of short films/games with high quality. For some reference and context, students should carefully study the wiki pages for the films "Robo+Repair", "QA-ARM-A", "Alien Oasis", and "Misfit Mice". In particular, the post-mortem notes for these shows are relevant. The DPA production pipeline and practices are evolving, so you should not expect to replicate these shows or their wiki pages. The teams are prohibited from depositing production data on any website other than the DPA wiki. Google, googledocs, wordpress, blogging sites, etc are prohibited because (1) wikis are good practice for the real world, and (2) it is valuable for students to control the presentation of these productions to potential employers, collaborators, and colleagues; and putting data on exterior websites eliminates that control. The production teams must accomplish the following:

1. **Assemble a production schedule**
   This is one of the first tasks to be accomplished, and it will be revisited repeatedly throughout the production to revise it with actual progress and new estimates. This is a living document that must be constructed on the show page and must always available for inspection and modification. A googledocs or other online spreadsheet is not acceptable. The schedule must be maintained on the show home page throughout the production.

2. **Divide up lead responsibilities**
   Each team member must take the lead on several different departments. Being the lead does not imply that person is the primary worker in the department, although that may turn out to be the case. The lead is the person responsible for making sure all of the work of that department is accomplished on time with high quality. When there is a problem or question about a department, the lead person is the first person to handle that issue or question. The lead person may need to consult with others in the department to find out an answer or resolve an issue. The departments that need leads, and the responsibilities of those leads, are:

   **Production Assistant** maintains the schedule, review notes, and show page; Tackles unexpected issues and resolves them. Makes sure that production items for review are ready at review time; communicates with supervisors about production issues.

   **Quality Assurance** assign tasks to individual QA personnel; monitor progress of all QA activity; troubleshoot difficult problems with QA personnel and artists; communicate production priorities to QA personnel; report QA status to production; communicates with supervisors about production issues.

   **Story Design** facilitates story idea discussions; assembles storyboards into animatics; maintains show page for story design; communicates with supervisors about production issues.

   **Play Design** (game) facilitates discussions on game structure and play character; assembles mock up of game play; maintains show page for play design; communicates with supervisors about production issues.

   **LookDev** facilitates character design discussion and research; builds and maintains show page on character design; communicates with supervisors about production issues.

   **EnvDev** facilitates environment design discussion and research; builds and maintains show page on environment design; communicates with supervisors about production issues.

   **Modeling** communicates priorities and daily tasks with modelers; validates published models for passage downstream; troubleshoots modeling issues; communicates with supervisors about production issues; maintains show page for modeling.
**Surfacing** communicates priorities and daily tasks with surfacers; validates published surfacing for passage downstream; troubleshoots surfacing issues; communicates with supervisors about production issues; maintains show page for surfacing.

**Rigging** communicates priorities and daily tasks with riggers; validates published rigs for passage downstream; troubleshoots rigging issues; communicates with supervisors about production issues; maintains show page for rigging.

**Layout** communicates priorities and daily tasks with layout artists; validates published scenes for passage downstream; troubleshoots layout issues; communicates with supervisors about production issues; maintains show page for layout.

**Animation** communicates priorities and daily tasks with animators; validates published animation for passage downstream; troubleshoots animation issues; communicates with supervisors about production issues; maintains show page for animation.

**FX/Tech Anim** communicates priorities and daily tasks with fx/tech anim artists; validates published elements for passage downstream; troubleshoots fx and tech anim issues; communicates with supervisors about production issues; maintains show page for animation.

**Lighting** communicates priorities and daily tasks with lighters; troubleshoots lighting issues; communicates with supervisors about production issues; maintains show page for lighting.

**Compositing** (short film) communicates priorities and daily tasks with compositors; troubleshoots compositing issues; communicates with supervisors about production issues; maintains show page for compositing.

**Editing** (short film) communicates priorities and daily tasks with editors; troubleshoots editing issues; communicates with supervisors about production issues; maintains show page for editing.

**Render Wrangling** Monitors the renderfarm, validates completed renders, troubleshoots render and renderfarm problems, notifies artists of the status of renders.

3. **Build a story**
   Build a story idea suitable for the length and high quality needed, and based on the story concept(s) under consideration. Because of the very short length, the story arc cannot execute all of the major components of a complete story. The story design here should be seen as a vignette, or an important moment of a larger story that the audience could imagine is happening. A successful short film is one in which the audience wants to watch the rest of the longer film that they imagine they have just seen a moment from.

4. **Build animatics** for the story from storyboards
5. **Design** the characters(s), environment(s), and prop(s).
6. **Model** the environment and character(s) in the story
7. **Rig** the environment and character(s) in the story
8. **Layout**
   Execute a layout that tells the story better than the animatics. The layout should explore camera positions, angles, motion, focal length, dramatic style, and shot timing. Initially the environment and characters in the layout are blocked in, but as the layout development progresses, the quality of the environment and characters must improve in order to validate layout choices, and rough animation has to be included.
9. **Animate** the characters and environment.
10. **Surface** all elements
11. **FX**
    Develop and execute the fx elements and technical animation elements (fluids, rigid bodies, hair, fur, cloth, etc).
12. **Light** the film using the renderfarm to distribute frames to multiple computers.
13. **Composite** elements into integrated shots.
14. **Edit** the finished the short film.
15. **Sound** Add sound, dialog and foley, to the finished short film.
16. **Reviews and Communication**
    Conduct twice weekly reviews with the team members and faculty. All members of all teams will take review notes for all team members. Immediately following the review, the team will conduct a Status Update Meeting (SUM) to compare notes and create a single reconciled version, and set work priorities and
assignments. The reconciled notes will be put on the show page by the PA, so that all parties can access them for their work. Conduct regular meetings and communications sessions among the team members, at least daily. Notes will be taken at these meetings and put on the show page for later use.

Reviews of the project will be conducted in two ways:
(a) In a group, twice weekly, during the scheduled course time.
(b) Individually, as needed, on zoom with the student sharing the screen of their individual workstation.

These reviews may be conducted by faculty, staff, teaching assistants, or mentors. All reviews are a collaborative discussion in which everyone participating is free to comment and make suggestions. In extreme situations, the instructor's decisions overrule any other, but (almost) all artistic decisions will be made by the teams. Reviews are conducted primarily on material (images and movies) that have been posted specifically for review. Immediately following the reviews, each team will conduct its own Status Update Meeting (SUM) to reconcile each individual's notes into a single set of notes that will be recorded by the PA on the show page. The purpose of these notes is to continue providing guidance to artists as they go forward from that meeting, and to provide context in future reviews about work that has been completed. During the SUM the team will also set priorities and work assignments going forward.

Outcomes: The goals of this course are:

- Provide the students with a better understanding of the production process
- Introduce the concepts and processes for creating and/or using multiple tools and disciplines in an integrated fashion
- Introduce the concepts and processes for a production pipeline
- Design, build, and execute short films and/or games in small teams at a very high level of quality
- Familiarize students with the review and iteration process
- Expand the students' experience with production communication
- Realistically simulate a production experience

Students will be expected to:

- Learn and master linux shell programming
- Learn and master the DPA production pipeline
- Learn to execute all of the stages of production with the DPA pipeline
- In some cases, learn the code structure and data content of the DPA production pipeline
- Work closely and intensively in small teams of students, with teaching assistant(s), staff, mentors, and professors
- Design and execute a short film or game in a small team
- Attend class in the DPA studio and work closely with team members.

Prerequisites:

Assignments: Each student will need to bring a pen or pencil and a paper notepad to every review. Extensive note taking will be necessary, for later use during the SUM immediately following. The notes may be taken directly onto computer if they feed directly into the production pipeline.

Grading: The grade consists of two parts:

1. Team effort: 50%
2. Individual effort: 50%

TEAM EFFORT
All members of a team receive the same point total for team effort, whether they officially worked on a milestone or not. While you may not be directly involved in a department, it is in your interest to participate in reviews and creative activity to make a better outcome for each step. Points for team effort are assigned for the following milestones:
INDIVIDUAL EFFORT
For each department that a team member contributes substantially to, they will receive up to 10 points. The amount rewarded is based on the overall magnitude of their contribution, i.e. the volume of work they do relative to the other team members, and the impact of their work. Each team member must work on at least 2 departments within the project.

The completed film or game is due Friday on the week of final exams, by 11:59 PM. Some important guidelines:
For a short film, the following should appear in this order: 1. A title card 3 seconds long with a title for the short film 2. The short film itself 3. A card 3 seconds long with credit list of the students on your team, and the instructor's name with a title of "Faculty Advisor". 4. One or more cards, each 3 seconds long, listing any people and organizations you want to thank who help create the film, and containing the copyright statement Copyright (c) 2021 by Clemson University. The film needs to be in the review system by the 23:59:59 deadline. More than one version can be there. If there is more than one version, you can send me an email pointing me to the one you want to call the official one. If you don't send me an email, I will make my best guess as to which one is the best to use. The film must have all of your shots, with each shot in the best condition that you have by the deadline. For a game, the following should appear in this order: 1. TBD Remember to finish putting all review notes and milestones on your show page, and any other updates to the show page that you want considered. If you have worked on pipeline improvements, you should email me with a description of them to make sure that I include them in your grade.

Required Text: None. We will use online materials.

Additional Reading: Many more documents & resources recommended in class and on the webpage.

Communications: Communications between the students and instructor/TA will be via the following mechanisms:

1. Zoom: this will be the video conference platform for office hours. Although office hours will be in-person, students will have the option of attending office hours via Zoom. Just prior to the start of the office hours, a zoom invitation will be generated and posted on Canvas.
2. Canvas: Announcements for the class will be posted to canvas. Canvas will also be the location where assignment grades are posted. Canvas will be the host location for any relevant videos.
3. Email: This mechanism is available as a means of having one-on-one conversations if needed. In unforeseen circumstances, announcements to the class may be posted via email.
4. Office visit: In addition to regular office hours, we can schedule an in-person office visit. Office visits, including office hours, can be attended via Zoom video conference.
5. Webpage: Much of the information for this course is hosted on a webpage for the course.

POLICIES
Late Instructor Policy If the instructor or a lab instructor is late to class or labs, then students should wait at least 15 minutes and check the course announcements before leaving.

Academic Integrity As members of the Clemson University community, we have inherited Thomas Green Clemson’s vision of this institution as a “high seminary of learning.” Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.
All infractions of academic dishonesty by undergraduates must be reported to Undergraduate Studies for resolution through that office. In cases of plagiarism instructors may use the Plagiarism Resolution Form.
Additionally, for undergraduate classes:
Plagiarism, which includes the intentional or unintentional copying of language, structure, or ideas of another and attributing the work to one’s own efforts. Graded works generated by artificial intelligence or ghostwritten (either paid or free) are expressly forbidden. See the Undergraduate Academic Integrity Policy website for additional information and the current catalogue for the policy.
For graduate students, see the current Graduate School Handbook for all policies and procedures.

Accessibility Clemson University values the diversity of our student body as a strength and a critical component of our dynamic community. Students with disabilities or temporary injuries/conditions may require accommodations due to barriers in the structure of facilities, course design, technology used for curricular purposes, or other campus resources. Students who experience a barrier to full access to this class should let the instructor know and are encouraged to request accommodations through SAS (Student
Accessibility Services) as soon as possible. To request accommodations through SAS, please see this link: [https://www.clemson.edu/academics/studentaccess/register.html](https://www.clemson.edu/academics/studentaccess/register.html). You can also reach out to SAS with questions by calling 864-656-6848, visiting SAS at the ASC Suite 239, or stopping by the office as a drop-in appointment.

**The Clemson University Title IX Statement Regarding Non-Discrimination** Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran’s status, genetic information or protected activity in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. This Title IX policy is located on the Access and Equity website. Ms. Alesia Smith is the Clemson University Title IX Coordinator, and the Assistant Vice President of Equity Compliance. Her office is located at 223 Brackett Hall, 864-656-3181 and her email address is alesias@clemson.edu. Remember, email is not a fully secured method of communication and should not be used to discuss Title IX issues.

Clemson University aspires to create a diverse community that welcomes people of different races, cultures, ages, genders, sexual orientation, religions, socioeconomic levels, political perspectives, abilities, opinions, values and experiences.

**Emergency Preparation** Emergency procedures have been posted in all buildings and on all elevators. Students should be reminded to review these procedures for their own safety. All students and employees should be familiar with guidelines from Clemson University Public Safety. Clemson University is committed to providing a safe campus environment for students, faculty, staff, and visitors. As members of the community, we encourage you to take the following actions to be better prepared in case of an emergency:

1. Familiarize yourself with all possible exits, safer locations, and other key information on the emergency evacuation maps in this building, and those that you visit regularly. For example:
   a. Run – what are all the possible exits in this building, and the routes to them?
   b. Hide – what are the potential hiding locations in this room and building that are out of sight of doors and windows, how do you lock the door(s), how would you barricade the door(s) and windows, where do you turn off the lights?
   c. Fight – What tools are available in this room and building, should you have to fight?

2. Make a plan for how you would Run, Hide, and Fight in case of an active threat in this building, and those that you visit regularly.

3. Ensure you are signed up for emergency alerts. Alerts are only sent when there is a potential threat to safety, a major disruption to campus services, and once-monthly tests.

4. Download the Rave Guardian app to your phone. [https://www.clemson.edu/cusafety/cupd/rave-guardian/](https://www.clemson.edu/cusafety/cupd/rave-guardian/)

5. Learn what you can do to prepare yourself for the hazards that affect our locations. [http://www.clemson.edu/cusafety/EmergencyManagement/](http://www.clemson.edu/cusafety/EmergencyManagement/)