Team and Individual Projects to Satisfy Core Objectives
HORT 201 - Horticulture Science and Practices
David Wm. Reed - Instructor
Horticulture Forest Science Building, room 408
Cell: 777-2750 Home: 690-0401
e-mail: dwreed@tamu.edu
Course Web Site: hort201.tamu.edu

Student Learning Outcomes for Life and Physical Sciences
Visual, Oral and Written Communication and Teamwork

Team Projects:
Project 1: Visual Communication: **Design** and **create** a visual model or artifact (up to 4 points)
Project 2: Oral Communication: **Collaborate** to produce a video to **role-play teaching** and **explaining** the model or artifact (up to 4 points)

Individual Project
Project 3: Written Communication: **Write/Rewrite** a Reflective Essay on a learning experience in class or team project that allowed a greater depth of understanding. (up to 4 points)

Optional Bonus Points:
All projects are optional and for bonus points (added to sum of exams that contribute to your grade)
You cannot be penalized for choosing to not participate in the projects.
Each student can participate and complete any or all three Projects.

Teams
The class would be divided randomly into teams of 5-6 members. The team members must work together to complete the Visual and Oral Communication model/artifact and the video. Team members will be graded on participation. Team member will anonymously score each other: >50% to full effort receives all points awarded to the project, >0 and <50% effort receives half points, and no participation receives no points.

Pre-Review/Critique/Rewrite and chance for correction/revision/rewrite
Teams or individuals can submit a draft of the artifact, model or essay to the instructor to review and critique, then the team or person can prepare the final draft or model for submission. Only one critique can be sought.

Team Project 1 Visual Communication (up to 4 points)
Design and create a visual model or artifact

Complete either Option 1 or Option 2, but not both
Option 1: **Convert a 2-dimensional diagram into a 3-dimensional model or artifact of an anatomical structure.**
The plant anatomy and morphology lectures are based entirely on 2-dimential drawings (pages 1-20). To demonstrate one's ability to visualize the structure in 3-dimension, the team will select any of the 2-dimensional diagrams in the text, then design and create a 3-dimensional model or artifact. The model or artifact will be scored for 3D, scientific accuracy, clarity of representation and professionalism. Team members will be graded on participation. Integrate the names of team members involved in the project directly on the artifact or submit a separate document. Names also can be entered into Canvas at the time of submission.

Submission: On behalf of the entire team, only one team member submits pics of the 3-D model to Canvas. Submit pictures of the 3-D model from several angles to show all parts in all dimensions. Pics must show all the labels clearly readable. When submitted to Canvas, list the names of the team members that were involved in the project. If you have difficulty or complications preventing submission to Canvas, you can bring directly to me the model or a USB stick that includes the file(s). DO NOT submit the file to Google docs.

Rubric

The 3D model will be scored for 3D, complete clear and professional labelling, scientific accuracy, and basically is it a reasonable representation of the actual plant part. The model can be constructed of any suitable material (paper, clay, wood, boxes, metal, styrofoam, food, containers, I even had one constructed from a half-ton round bale of hay).

The Rubric scale will be:

4 points – first and foremost the 3D model truly is a 3D representation of the structure, e.g., it reveals the dimensions of width, length and height (the 2-D diagrams in the book have only width and length); all parts included and properly and clearly labelled; scientifically accurate; it is a clear and reasonable representation; and appears professional and would be acceptable for a presentation.

2 points – the model is not 3D, some parts not present or inaccurately represented, some parts not labelled or labels not professional looking.

0 points – a model is not submitted, or if it is deficient in 3 or more of the above rubric grading characteristics.

Option 2: **Convert Narrative information into a visual artifact that fits a visual learning style.**
The individual team member will take any topic from throughout the text that is presented as narrative and create a visual method of presentation. The artifact could be a comparison and contrast matrix (example p. 18, 29), a diagram or one PowerPoint image/slide (example page 34, 62), a virtual model, a drawing, labelled visual image, etc. The team could take a visual diagram or drawing in the text and present it in an <u>original and uniquely different</u> presentation. If you use PowerPoint to create the visual artifact, DO NOT submit a Power Point presentation, only one PowerPoint slide. Integrate the names of team members involved in the project directly on the artifact, pic of names on a separate document, or list in Canvas upon submission.

Submission: On behalf of the entire team, only one team member submits to Canvas <u>a single electronic file</u> of the drawing, diagram, graph, pic, virtual image, PDF, single PowerPoint image/slide, or comparison and contrast matrix. The artifact must be in a file format that can be read on a standard computer with standard software. When submitted to Canvas, list the names of the team members that were involved in the project. If you have difficulty or complications submitting to Canvas, you can bring directly to me a USB stick that includes the file(s). DO NOT submit the file to Google docs.

Rubric

The artifact will be scored for learning style indicated, accurate and complete labelling, scientific accuracy, and basically is it a reasonable representation of the narrative description.

The Rubric scale will be:

4 points – first and foremost the narrative in the text is presented as an artifact that fits the visual learning style. The artifact has all parts properly and clearly labelled; is scientifically accurate; it is a clear representation; and appears professional and would be acceptable for a presentation.

2 points - must be a single standalone artifact, such as a single drawing, matric or PowerPoint slide and not multiple pages or multiple slides; some parts not present or inaccurately represented, some parts not labelled or labels not professional looking.

0 points – an artifact is not submitted, or if it is deficient in at least 3 of the above rubric grading characteristics.

Team Project 2: Oral Communication (up to 4 points)
Collaborate to produce a video to role-play teaching and explaining the model or artifact

The team will prepare a short video, up to approximately 3 minutes, to present and explain their 3D model or visual artifact from Option 1 or 2. A video taken with cell phones is sufficient. Basically, consider the video as a mini lecture to a class and the team members are the teachers. Every team member must be part of the oral presentation. Team members must clearly introduce themselves when they start their portion of the presentation. If possible, add a graphic to the video with participating team member's names. Team members will be graded on participation.
Submission: On behalf of the entire team, only one team member submits to Canvas the video file. The video file must be under 5MB.   If you have difficulty or complications submitting to Canvas, you can bring directly to me a USB stick that includes the video file. DO NOT submit the file to Google docs.
Rubric
The video will be scored for all team members with a speaking part, clarity of video and audio, visual presentation shows each speakers face and clearly shows each team member pointing to and explaining parts of the model or artifact, aspects of the model are revealed to the viewer; including all labels; and scientific accuracy:
The Rubric scale will be:
4 points – each speaker introduces themselves then presents a clear audible and visual presentation of some part of the artifact or model, all parts and angles of the model are pointed out and explained by the speakers, all comments are scientifically accurate
2 points – speakers are not identified, the video and/or audio is not clear, the viewer cannot see all parts of the model or the artifact, the presentation is not professional or scientifically accurate, the video does not show the face of every presenter sometime in the video.
0 points - a video is not submitted, or if it is deficient in at least 3 of the above rubric grading characteristics.

Individual Project 3: Written Communication (up to 4 points)
Write/Rewrite a Reflective Essay on a learning experience in class or team project that allowed a greater depth of understanding.

Each student will have the option to write a short reflective essay (200-500 words, 1-page typed max). The reflective essay can be on any science topic covered in the class or on the student's experience on team Project 1 or 2. Note, the essay is not a team project, but the essay can be written about the team experience. <u>The reflective essay should address how the learning experience yielded a greater and more in depth understanding of the scientific principle or artifact produced by the project. Consider how you have changed, developed or grown from the experience to come to a better understanding and/or appreciation of science.</u>
Submission:
Each student will submit their essay as a Word document to Canvas. If you have difficulty or complications submitting to Canvas, you can bring directly to me a USB stick that includes the file. DO NOT submit the essay to Google docs.
Rubric
The essay will be scored with a standard rubric first and foremost is it reflective, for grammar, spelling, sentence structure, etc., scientific accuracy and clarity of the explanation. The essays will be worth up to 4 points.
The Rubric scale will be:
4 points - for an acceptable, conscientious and adequate essay that demonstrates personal reflection, expresses a greater depth of understanding, and that is grammatically correct, correct spelling, and good sentence structure, and is on a topic covered in class.

2 points - clearly needs improvement; is not reflective, lacks in-depth understanding of the science topic, has grammatical and spelling errors, or appears that 'little thought" was put into the essay.

0 points - if an essay is not reflective, is deemed insufficient in several of the above characteristics, is on a topic not covered in the course, or is not submitted.

Deadline for All Projects

The final due date for all projects will be shortly after the 3rd Exam. By that time, the student should know if bonus points would be helpful. The exact day and time are TBA. This will be a <u>hard deadline in Canvas.</u> No project will be accepted late, not even a couple minutes. But projects can be completed and submitted any time prior to the deadline. In fact, it would be advisable to complete and submit the projects well before the deadline.

DO NOT wait until the last minute in case you have computer or Wi-Fi problems.

Project 1 and 2 – only one team member submits the project to Canvas on behalf of the entire team.

Project 3 – each individual students submits to Canvas their own essay document.