

## Mechanical Engineering

Fall 2018

Course Number: ME 198

Decal Title:	Archery DeCal
Units:	1
Decal Facilitators & Emails:	Sherry He, calarcherydecal@gmail.com
Faculty Sponsor:	Dennis K. Lieu

### Overview/Description of Course:

This course is designed to introduce archery knowledge and skills, and is gear towards those who are new to this sport. Through weekly lectures and field practices, the course will teach proper shooting form and technique as well as appreciation of archery as a recreational or competitive sport. Topics will contain range rules, safety and the fundamentals of archery including steps of shooting, proper form, equipment setting and adjustment, scoring and competitive archery, etc. Some basic principles of biomechanics and how it optimizes shooting performance will also be introduced. The course will begin with introduction of recurve form, including the most important nine steps of shooting, but students will then be able to choose the archery divisions they would like to dig into.

**Prerequisites:** **A \$30 equipment fee is required.**

**Location & Time:** Golden Bear Softball Field, 3:00-5:30PM on Sunday. In adverse weather, class may be cancelled or held indoors.

### Student Learning Objectives:

By the end of the course, you are expected to have brief knowledge of different archery divisions and their corresponding characteristics, as well as rules of scoring and competition. You are not required but recommended to try out different divisions, but throughout the semester you will aim to master only one archery division, demonstrate good archery form and should have a good understanding of fundamental archery techniques. In any case, safety should always be your first consideration. Ultimately, you should be able to shoot safely and professionally on the field and we hope you enjoy the time spent on the field.

### Instruction Methods/Structure:

Technical lectures and field practices.

### Useful Readings & Websites (Optional):

- Lee, KiSik, and Tyler Benner. *Total Archery: Inside the Archer*. Chula Vista, CA: Astra, 2009.
- Equipment Assembly: The Olympic Recurve Bow: <http://archery.uchicago.edu/documents/RecurveBowSetup.pdf>
- History of Archery: <http://www.britannica.com/sports/archery>
- Archery at Olympic Level: <http://www.olympic.org/fita>
- Mental game: <http://www.goldmedalmind.net/why-sports-psychology/>
- Compound and Traditional: <http://www.offthegridnews.com/survival-hunting/bow-hunting-compound-vs-traditional-bows/>

### Grading & Course Policies:

**20% - Participation/Attendance\***

**50% - Class Performance**

**30% - Online Quizzes/Homework**

*Participation/Attendance\*:*

- While, strictly speaking, your attendance counts for only 20% of the grade, there is a **minimum-attendance**

**requirement.** You are allowed only **one** excused/unexcused absence – if you miss more than one session without making it up, you will immediately get a **No Pass** grade in the course regardless of your performance. An absence can be made up by attending a club practice and practicing with the guidance of an instructor for at least three hours. Please consider another DeCal if you do not feel you can meet this requirement.

*Online Quizzes/Homework:* see the section below.

*Class Performance:*

- This has nothing to do with how well you shoot but whether you demonstrate your professionalism as an archer. **10 points** will be deducted for **each** missing arrow we found forgotten on the field in class and after class. Finding missing arrows is essential for field safety. More details will be announced in class.
- You are expected to help set up / take down the field at the beginning / end of class, and treat your peers and instructors with respect.
- You are expected to arrive early, set up the field and your equipment quickly to maximize our time usage. We could operate on Berkeley time, but warm-up will begin at **3:10pm sharp**. Practice will start right after the warm-up, so you will get more time to practice if you arrive early. Arriving late too frequently, leaving early and not helping clean the field, etc. may also result in point deduction.

**Descriptions of Quizzes/Homework:**

Several short online quizzes via Google Form will be randomly assigned through emails after class sometime during the first half of the week, and each quiz will be due before the next session begins. Each quiz will consist of only several questions, so it will not take too long to complete.

The purpose of assigning quizzes is to help you familiarize with archery concepts and get prepared for class. Some concepts, such as steps of shooting, are fundamental for proper archery form as well as safety consideration because incorrect form may not only injure yourself but also the people standing around you. Safety is always the foremost. Additionally, quizzes can help refresh your memory since we only have one session per week. It is easy to forget the techniques without a lot of practice.

Aside from the assignment specified above, you are highly recommended to have a stretch band and practice the form for at least five minutes a day. This serves to reinforce technique, help build muscle, and get you used to anything about your form you have modified.

## Weekly Schedule

	Week	Date	Topics & Overview	Notes
1	3	9/9/2018	Welcome! - Course info and syllabus; introducing instructors - Range rules and safety - The nine steps (thera-band) - Demo of different divisions (TBD)	- <b>Attendance is mandatory.</b> If you do not attend the first session, you will be dropped from our roster.
2	4	9/16/2018	Getting started~ Choose your instructor! - Instruction on setting up bows & the field - The nine steps (thera-band then bow) - Form: back muscle, alignment - Getting comfortable using a bow and seeing what it feels like	- Familiarize yourself with the nine steps and parts of a bow and an arrow.
3	5	9/23/2018	Let's Give it a Shot! - Free shooting - Form check - Reference points - A quick game of King of the Hill (TBD)	- Instructors could start teaching their own divisions, but students still have the chance to try out different divisions. - The topics listed after this class are designed for Olympic recurve. Course contents of other divisions are determined by instructors.
4	6	9/30/2018	Putting on Stabilizer~ - Introducing stabilizer - Grip and bow drop drill - Lesson on tying finger sling - Practicing bow drop with each other	- Bring a shoelace to this and future classes.
5	7	10/7/2018	Putting on Sight~ - Introducing sight and aiming - Lesson on adjusting sight - String blur	\
6	8	10/14/2018	Refresher and Practicing everything! - Review and free shooting	\
7	9	10/21/2018	Free Practice - Review and free shooting - Introducing scoring and indoor target archery: 18 meters	\
8*	10	10/28/2018*	Practice and Game! - Free shooting with targets - Game (TBD)	May be adjusted/cancelled for Golden Bear Open fundraiser. Details TBA.
9	11	11/4/2018	Practice~ - Introduction to team rounds in competitive archery - Game maybe? TBD - Let's decide the rules of the final competition!	\
\	12	11/11/2018*	Veterans Day. No class.	\
10	13	11/18/2018	Final competition against instructors. Wrapping up.	\