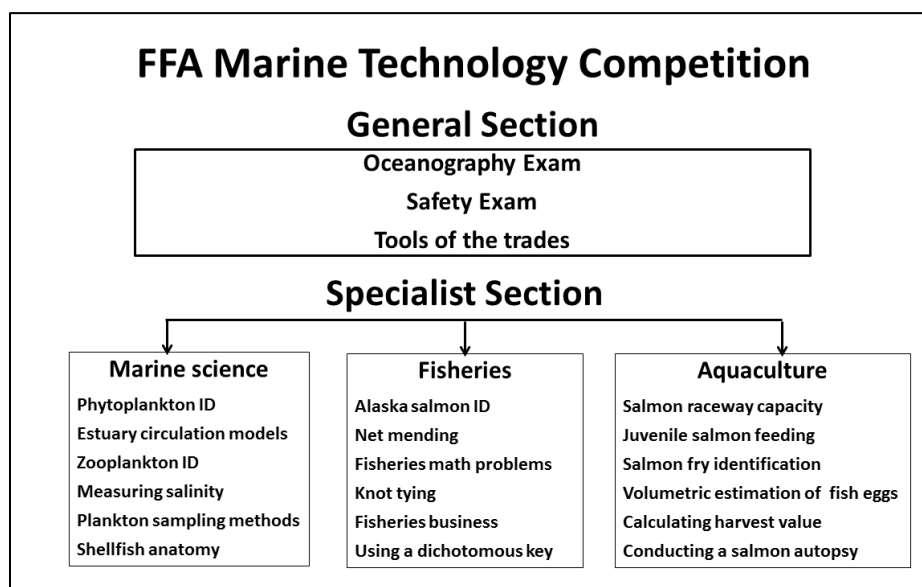


Alaska FFA Marine Technology Competition
Preparation manual and Study Kit
From
Raymond RaLonde, Superintendent

At the annual FFA Career Development Event (CDE), a Marine Technology Program is sponsoring a competitive event on topics marine sciences, safety, and technology. This manual provides you with information on participation and preparation for the competition. The competition is scheduled for April 24, 2015 from 1-5 PM at the conference location. Three activities are scheduled for the afternoon: A workshop on marine careers, the competition, and a marine survival exercise. More details about the scheduled activities will be forthcoming.

Structure of the Competition

The competition is a team event consisting of three members from each participating high school. This does not preclude individuals from participating and high schools can also enter more than one team in the competition. Each team member will prepare for a specialty: Fisheries, Marine Science, or Aquaculture. The competition is structured as illustrated below.



The diagram shows the competition occurring in two stages.

- a. General section that includes:
 - i. An oceanography exam, safety exam, and tools of the trades
- b. Specialist section includes the following specialties:
 - i. Fisheries (Fisheries science and commercial fishing)
 - ii. Marine Science (Physical, chemical, and biological topics)
 - iii. Aquaculture (Salmon ranching and shellfish farming)

The general section

Structure and preparation

All team members will participate individually all three activities of the general section. In this kit, your team is supplied with information and if necessary supplies for preparation. This year

you will be supplied a short general oceanography manuscript, photographs of tools of the trade from all three specialties, and the book “Water Wise” ,chapter 1, 4, , 5, 9, for the required marine safety information. You can prepare for the tests individually and as a team effort for all activities in the competition. I strongly suggest you spend time as a team in preparing, coaching each other.

Scoring

Oceanography exam 10 pts

Safety exam 10 pts

Tools of the trades 10 pts

Total possible points per team member 30 pts

Total possible points for all three team member 90 pts

The specialty section

Structure and preparation

Study information and supplies are provided on six topic areas for each specialty. You need to prepare for all seven topic areas, but only 3 of the 6 topics will be selected for the competition. You can use any other resources to prepare, that includes:

- **Local experts.** Nearly every community has local experts in at least some of these specialty areas. Use them particularly for preparation in hands on skills like net mending, and fish anatomy, etc. Your high school biology and math teachers can be extremely helpful.
- **Videos and internet resources.** Some resources are:
 - a. YouTube e.g. there is great net mending video titled “Mending a synch net” and using a salinity refractometer to measure marine salinity
 - b. The Alaska Sea Grant website at:
 - i. <http://seagrant.uaf.edu/map/#&panel1-3>
 - ii. YouTube videos are available at;
<https://www.youtube.com/user/AlaskaSeaGrant>
 - c. Alaska marine safety education association (AMSEA)
 - i. <http://www.amsea.org/>
 - d. Fish and wildlife departments
 - i. Alaska Department of Fish and Game
 1. <http://www.adfg.alaska.gov/index.cfm?adfg=fishing.main>
 - e. Washington Department of Fish and Game a– <http://wdfw.wa.gov>.
 - i.
- Please do a quick initial review of all the information in the kit.
- Always feel free to contact me for more information ray.ralonde@alaska.edu

Scoring

Three of the seven possible topics in each will in in the competition. The score of each topic is worth a maximum of 10 points. Combining all the team member scores gives a maximum of 90 points.

Total possible team score for the entire competition is 180 pts.

Good Luck