

General Information

Honors Projects 2010-2011

Chemistry / Marine Science / Physics

The following notes are intended to complement the 9/30/09 Student/Parent informational meeting within F-21 at 5:30PM. Please contact one of the instructors with questions or for additional clarifications:

Dave Beran	david.beran@corvallis.k12.or.us	757-4536
Ryan Kanter	ryan.kanter@corvallis.k12.or.us	757-4537
Adam Kirsch	adam.kirsch@corvallis.k12.or.us	757-4540

WHY THE HONORS PROJECT

- There are numerous reasons why a student should consider participation within the honors option:
 - For the last couple of years, CV students have earned a number of scholarships to local universities (including \$20,000 at OSU (any major), \$16,000 scholarships at OSU (engineering), full scholarships to Lewis & Clark; many others.
 - For each of the last three years, a CV student research group has been awarded an all-expense paid trip to the International Intel Science & Engineering Expo.
 - Numerous groups have been invited to compete at the state fair in Portland.
 - Participation within these research projects allow students the chance to participate within authentic activities having the potential to impact real issues beyond the classroom.
 - Participation within projects provides students with a means of standing out from among peers (sometimes a nice thing when resumes are involved). The project requires students to work on their own initiative instead of just working as directed. This project may even qualify for the “extended application” graduation requirement.
 - Participation allows students to learn the skills necessary to work with others, to develop solutions to open ended issues, and to deal with the real world – all skills that will make our students truly valued by others throughout their lives.

THE DETAILS

- Students electing the honors options in these classes will be given some class time to complete projects. When given class time, non-honors students will be allowed to work on previously assigned homework, complete lab write-ups, or review class content for upcoming tests. No new material will be covered nor new assignments given while honors students work on their projects on these days. Honors students will simply have less class time to complete normal class assignments.
- Students must commit to the honors option by no later than Friday, 10/2. Students will not be allowed to opt out of the honors option following their initial commitment.
- A project website will be maintained at <http://www.csd509j.net/cvhs/kanterr/Projects2009-10.htm>. All information, assignments, guidelines, examples of past projects, and other information will be posted at this website.
- **To earn honors credit, student must participate within the entire process AND MUST attend the Central Western Oregon Science Expo (CWOSE) to be held the entire day of Saturday, March 5th, 2010.** (Exact schedule and details to be announced at a later time). Students will be expected to participate if and when they qualify for either the state or the international competitions.
- Students may work within groups of up to three people. Students may also work as individuals.
- Student groups may be comprised with students from any other science class. However students opting to partner with students not within their own science class will limit their instructor’s ability to insure group-class time to work on the project.
- Each student group will be asked to sign a group contract similar to the one attached to these notes.

- Students working within groups will share a common grade for most of the assessments associated with the projects. As much as 20% of a students' grade in the class will be determined from work upon their honors project.
- Honors students will be expected to complete all required paperwork and forms in a timely manner. Should deadlines be missed, students will be on their own and run the risk of becoming disqualified from CWOSE (and therefore the option of earning honors credit).
- The CV science department will provide printing services for the student's poster for CWOSE. Students will not need to incur this cost. However, depending upon department resources, students may be asked to supply a display stand and help offset transportation costs to and from CWOSE.
- Students will complete group and self evaluations on a regular basis to insure that the teacher is informed of any problems as soon as they arise.

SELECTING A PROJECT

- Examples of some past CV student work and projects can be found at the following website: <http://www.csd509j.net/cvhs/kirscha/index.htm> . No attempt has been made to organize the listed projects by quality, content, scope, or any other criteria. Students should confer with their instructors when developing their own projects.
- Honors students should consider resources they have access to (parents, places of work, friends, etc...) when selecting and developing their projects. Honor students will have access to all of the materials within the CV science department as well as the assistance from CV science staff. In some cases, CV staff will be able to tap into community resources. This will very much be project dependent.
- OSU's Valley Library must be a portion of the group's background research prior to the project. Students will be assisted with the use of this resource.
- Instructors will assist students in identifying a topic and narrowing their topic down to a doable project. This skill will be discussed and practiced. However, instructors will not select topics or projects for students.

PITFALLS TO AVOID

- Procrastination. Probably the single largest problem in the past. Despite teacher warnings and project due dates, students have often failed to allow enough time for project milestones. When working on real issues and developing their own procedures, students MUST assume that something is going to go wrong the first time. Far too many students assume things will work and therefore wait until the last minute to finish things up. This hasn't worked for students in the past, it doesn't work for people in the real world, and it won't work for students this year. Assume that something unexpected is going to happen.
- Students select something that really isn't of interest to them. Those students selecting something that they are passionate about seem to have far fewer issues when working on their projects.
- Students fail to complete enough background research on their topics and specifics of their projects. Likely, honors students will need to go beyond the content covered in class to some degree. On the flip side as this is required, students assessment will be more effort-based as opposed to master-based of content beyond the normal scope of the class.
- Students fail to appreciate the fact that the most critical (and most difficult) part of the entire project is selecting a good topic and completing thorough background research.
- To be competitive at CWOSE, students must do something unique, that builds upon what has already been done as opposed to simply repeating what has already been done. Moreover, competitive projects typically have an extensive investigation.
- The primary consideration in the selection of group partners was friendship. While certainly important, there have been many instances where friends have differing ideas about effort, quality and commitment.
- The group fails to inform the instructor immediately about inequitable work load issues or other conflicts that arise within the group.
- Generally, groups working across classes (as opposed to being within a single class) have struggled to meet deadlines and complete required milestones generally because they fail to adequately allow time to complete work together outside of class. In this case, there is little the instructors can do to assist since instructors do not have control of student schedules beyond their own class.