

PROCESSING DAIRY FOODS LAB SYLLABUS

T.A.s: Alisha Parsons

145 FAPC

744-7984 (office)

744-6073 (lab)

Office Hours: Th 9:30-11:30

Biography: Alisha Parsons was born on September 24, 1984 and grew up in Wynnewood, Oklahoma. She graduated from Wynnewood High School in 2003. She began working on her undergraduate degree in the Fall of 2003 at Oklahoma State University and graduated May 2007 with a B.S. in Food Science. As an undergrad she worked as a student employee in the ANSI meat research labs for a semester and then began working at the Food and Agricultural Product Center 2nd floor meat lab for 2 years. She began working on her master's degree in the Fall of 2007 in Food Science under the direction of Dr. Christina DeWitt. Her research will be looking at an alternative means of meat enhancement that minimizes additives that may have negative health implications for some consumers. In her free time she enjoys reading, outdoor activities, music of all kinds and spending time with her French bulldogs, Sophie and Fergie.

Sujitha Prasad

126 FAPC

744-7455 (office)

744-6073 (lab)

Office Hours: F 9:30-10:30

Biography: Sujitha Prasad was born on January 2, 1983 and grew up in Kerala, India. She graduated from Nirmala High School, Cochin in 2002. She began working on her undergraduate degree in the Fall of 2002 at Bharathiar University and graduated with a B.S. in Microbiology and did her Masters degree in Biotechnology in the same University and graduated in May 2006. She began working on her Masters degree in the Spring of 2007 in Food Science under the direction of Dr. Christina DeWitt. Her research will be focusing on the overexpression of normal scrapie prion protein using a mammalian cell system. In her free time she enjoys music and cooking.

GRADING (1/3 OF OVERALL GRADE):

7 LAB REPORTS- 875

3 FIELD TRIP REPORTS- 300

CHEESE REPORTS- 150

MID-TERM - 175

SPECIAL PROJECT (500 pts)

LIST & TIME TABLE- 50

PRESENTATIONS- 200

REPORT- 150

PARTNER'S GRADE- 100

TOTAL POINTS IN LAB: 2000**Note: Lab Report Grading Scheme (Total 125 pts)**

| Section | Pts | Requirements |
|---------------------------|-----|--|
| Handout | 50 | Answered questions clearly and completely. Show in detail all calculations used to determine answers. |
| Purpose Statement | 15 | Described further in Lab Notebook section of syllabus |
| Raw data and calculations | 30 | All data collected during the lab should be recorded at the time of the lab. Calculations used to obtain results must be in detail (step-by-step). |
| Conclusion Statement | 15 | Described further in Lab Notebook section of syllabus |
| Lab participation | 15 | Based on preparedness, involvement, and compliance . Also based on not interacting with your cell phone during class. |

ATTENDANCE POLICY:

- ❖ Attending lab is MANDATORY!
- ❖ NO credit can be obtained from unexcused absences.
- ❖ If you *know* that you'll be gone for an excused reason, you must inform the TA's one week prior to being gone. Notification must be by email. A verbal notification is not sufficient. Contact through the D2L page.
- ❖ Reports/homework must be turned in prior to the lab you will miss.

LAB REPORTS:

- ❖ Reports are due one week after an experiment is completed and must be turned in at the beginning of lab on the day they are due. **Reports that are late will lose 10 points per day.**
- ❖ **Reports Should Include:**
 - **Completed handout**
 - **With all attached calculations, write-ups, etc**
 - **Lab Notebook Information**
 - **Purpose Statement (initialed by TA prior to lab)**
 - A short statement of the purpose of the experiment in your own words and the procedures we will be using for the experiment. (Why is the procedure important to the dairy processing industry?)
 - **Calculations and Raw Data (initialed by TA before leaving lab)**
 - **Conclusions**
 - Summarize your results, the main points of your experiment (discussion), and how they relate to your stated purpose of the lab. It is a good idea to include how the main points of your discussion are connected, in order to demonstrate the overall significance of your observations and the concepts you learned.
 - **References**
 - When references are used, they must be cited (10 points will be deducted when references aren't cited). You must use Journal of Food Science Style.
- ❖ Remember laboratory reports will be graded in part on the completeness and accuracy of your notebook.
- ❖ The work in your report and your notebook must be your own. In some experiments, you will work with a partner. You may have the same data in that case. However, all other parts of the write-up must be your own work. Under no circumstances should any section of your notebook be copied from another person.

INFORMATION ABOUT LAB NOTEBOOKS:

- ❖ A lab notebook must be maintained with all purpose statements, raw data and calculations, and conclusion statement.
- ❖ You will need to write the **PURPOSE STATEMENT** prior to the lab. The TA will initial this at the beginning of lab.
- ❖ Laboratory notebooks should have the ability to give you duplicates of your work (carbon-copies), one to turn in and one to keep for yourself.
- ❖ Raw data should be entered in your lab notebook as it is collected in the class and should be initialed by the TA before leaving the lab. It is not acceptable to write your raw data on a loose sheet of paper and then transfer later to the notebook. It must be recorded in the notebook during the class period.

FIELD TRIPS

- ❖ Field trips are MANDATORY.
- ❖ If you have a conflict with another class try to let your other professor know what days you will be gone. If you can't resolve the conflict, come talk to the TA.
- ❖ Field trips are an excellent opportunity for you to learn more than what is taught in class. Please take advantage of that and be prepared to ask questions.
- ❖ Handouts will need to be completed for the field trips. The questions will be posted on D2L. The handout will be given to you the day of the trip. However, you may not take the paper in with you because that distracts you from the information being given.

CHEESE REPORT:

- ❖ A specific cheese will be assigned to you.
- ❖ You will be required to bring your report the day of cheese tasting.
- ❖ Report must be typed, double spaced, one inch margins, Arial or Times New Roman, 12 pt, and at least 2 full pages.
- ❖ As we go through the cheeses, you will be required to give a short oral report to the class about what makes your cheese unique and different from the others.
- ❖ To be included in the report: type of cheese, bacteria used, aging process, origin, etc....(more details closer to April)
- ❖ When references are used, they must be cited (10 points will be deducted when references aren't cited). You must use Journal of Food Science Style.

SPECIAL PROJECTS:

- ❖ This counts for a major portion of your lab grade.
- ❖ Start early. Notice the dates that shopping lists are due to me.
- ❖ Work as a group. Delegate to make it as easy as possible for everyone. Your lab partners will be grading you.
- ❖ The Report:
 - Must be type written
 - Include list of ingredients and equipment
 - Contain detailed description of the procedure used
 - Identifies Critical Control Points in the Process
 - Include group's opinion of final product
 - Have what to do differently next time
- ❖ The Presentations:
 - Should be in power point
 - Should show a video or pictorial account of the process for your product (you can check out audio visual equipment on campus).
 - Must describe the process (Time, temperature, and ingredients)
 - Discuss problems encountered/how solved.
 - May be no longer than 10 minutes in length.
 - Must bring samples of the finished product for everyone in class.

Note: All the correspondence will be made through Desire 2 Learn; hence make sure that you check your d2L mail more frequently.

Points will definitely be taken off if you fail to follow the instructions for writing your lab notebook and lab reports.

Lab Schedule

| | |
|----------|---|
| Jan 8 | Introduction |
| Jan 15 | Flavor Defects in Milk |
| Jan 22 | <i>OSU Dairy Barn Tour</i> |
| Jan 29 | Milk Composition and Yields of Products |
| Feb 5 | Tests for Receiving Milk at Processing Plants |
| Feb 12 | Separation, Homogenization, and Pasteurization |
| Feb 19 | Milk Standardization Problem/ Yogurt |
| Feb 26 | Yogurt and Staining/ Blue Cheese Lab Planning |
| March 4 | Blue Cheese Lab |
| March 11 | Mid-term Exam |
| March 18 | Spring Break |
| March 25 | <i>Field Trip</i> |
| April 1 | Cheese Tasting and Reports (Deadline for Special Project Proposal) |
| April 8 | Special Project |
| April 15 | Special Project |
| April 22 | Special Project Presentations (Dead Week) |