

## FDSCTE 5310 Lab - FOOD QUALITY ASSURANCE LABORATORY - 2017

Instructor (CEO) : M. Monica Giusti

TAs (QA Managers): Geoffrey Dubrow (.7), Peipei Tang (.451), Yucheng Zhou (.1140), Xiaoyi Zhu (.1002)

**\*Students in FDSCTE 5310 QA Laboratory will be considered QA Technicians for the purpose of the course**

### I. LABORATORY CONTENTS

1. Using statistical tools for sampling, sample description, estimation of population parameters, and data analysis for sample evaluation and prediction.
2. Using instrumental techniques for food quality assurance, using as representative examples
  - Acidity and pH
  - Soluble solids and °Brix
  - enzymatic analyses
3. Using sensory techniques for the evaluation of food quality
  - consumer tests: discrimination and hedonic tests
  - descriptive tests
4. Determination of food authenticity and / or adulteration.

### II. RECORD KEEPING: LABORATORY NOTEBOOK

Every student is required to keep record of all laboratory work in a lab-notebook, containing the information necessary to replicate the experiment. When food company need to address a problem or solve a dispute, a lab-notebook should provide evidence that the process was monitored correctly and accurately. Standard Operating Procedures (SOP) should be recorded prior to the start of the lab, while information obtained during the lab must be recorded during the laboratory session. Laboratory notebooks will be reviewed and signed at the end of each lab session by one of the QA managers and will serve towards your class participation and attendance grade (5% of final grade).

#### Recording information on your lab-notebook:

- Pages should be NUMBERED. Never leave pages in blank to fill out later.
- Write the date, your name and the title of the experiment on every page
- Write down BEFOREHAND the **SOP** (Standard Operating Procedures) which should include:
  - Title, Purpose, Definitions and Procedures.
- During the lab, record what was done and your observations, data, results.
- **Never erase** when you make a mistake. Cross out the mistake with a line (don't cover it with white ink) and write down the correct information.
- Include ideas/suggestions you may have for future experiments and your own observations
- Lab reports must be informative, they do not need to be "beautiful".

### III. LAB REPORTS

Students will be asked to submit 6 Lab Reports on the dates specified in the FDSCTE schedule of classes, following the FDSCTE 5310 LAB REPORT WRITING GUIDELINES provided. The average grade for the best 5 lab reports submitted will represent 40% of the overall FDSCTE 5310 grade. Each lab report will be submitted by teams of 3 students, and will be graded as follows, on a 100 point scale:

Lab Report Section	Points assigned	Lab Report Section	Points assigned
Title/authors	5	Conclusions	10
Abstract	15	References	10
Introduction	15	Figures and Tables	10
Materials and Methods	15	Author Contribution	5
Results and Discussion	15		
Total maximum points possible per report:			100

