Proposal for FST 385 Communicating Food and Fermentation Science (3 Credits)
A Writing Intensive Course in Food Science and Technology

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Course Overview

The course will guide students in the investigation and critical evaluation of literature on a topic of current interest in Food or Fermentation Science, and in the development of their ability to write concisely and with precision about technical subject matter in this discipline. There will be approximately 24 hours of in-class instruction and practice, evenly divided between a once per week meeting of all students (30-40 students) and a second weekly meeting in small enrollment (10-15 students) recitation. The “all students” meetings will focus on instruction and skill development in research, writing and oral presentation styles common in this discipline. There will be two or three recitation sections offered with each teaching of the course. Each recitation section will focus on a particular “hot topic” in Food or Fermentation Science as selected by the recitation instructor, a faculty member with expertise in that topic. In addition to the classroom activities, students should expect to spend 50-60 hours on independent research, writing and small group collaboration.

Informal writing will be extensively employed to facilitate learning about the subject, and to practice brainstorming, free writing, outlining, critical evaluation, editing, and giving and receiving feedback on writing. The central assignment in the course is a research paper, requiring that students synthesize information gathered in their research into a 2000 summary of current knowledge on their chosen subject. An initial paper draft will be revised, incorporating peer and instructor feedback, to produce a polished final paper. The course concludes with debates on a controversial issue of each recitation section topic.
FST 385 Communicating Food and Fermentation Science (3 Credits)

Course Syllabus: Winter 2015

Instructors
Coordinator (primary responsibility for Tuesday “Research and Writing” sessions): Dan Smith
Office: WGND128  Hours: TBD
Phone: 541-737-2590
e-mail: dan.smith@oregonstate.edu

Recitation Section Titles and Instructors (each section has a specific theme)

<table>
<thead>
<tr>
<th>Title</th>
<th>Office</th>
<th>Hours</th>
<th>Phone</th>
<th>E-Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Authenticity and Traceability</td>
<td>Dan Smith</td>
<td>WGND128</td>
<td>TBD</td>
<td>737-2590 <a href="mailto:dan.smith@oregonstate.edu">dan.smith@oregonstate.edu</a></td>
</tr>
<tr>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td></td>
</tr>
</tbody>
</table>

Prerequisites: WR121 and FST360 and MB302*. Fulfillment of Baccalaureate Core Writing II Requirement (or equivalent writing course)
*Concurrent enrollment in MB302 permitted

LOCATIONS: TBD

Meeting Schedule: TR for 80 minutes each. Tuesdays will be joint meetings of all of the three sections (30-40 students), focusing on research, writing and techniques for presentation of scientific information. One or more faculty members will facilitate these sections that address skills and issues in food science research and writing. Thursdays will be used for meetings of small (10-15 students) “topic” recitation sections. Each recitation section will have a unique topic and be directed by an instructor with particular expertise in this area.

Course Description: This is a Writing Intensive Course for majors in FST. Introductory lectures provide a common background upon which students build through individual research on topics of current interest in food or fermentation science. In class writing will not only facilitate critical thinking about the topic under consideration, but also help students lower the “activation energy” of initial drafting of their ideas. At times, these informal writings will be passed to another student for practice in editing for clarity and brevity. The major assignment in the course requires that students develop and revise a term paper on the topic specific to their section of the class, incorporating feedback from peer and instructor reviews. The class concludes with the formation of teams of students to conduct debates of a controversial aspect of each of the section topics.
Expected Learning Outcomes

All OSU Students in Writing Intensive Courses shall:

1. Develop and articulate content knowledge and critical thinking in the discipline through frequent practice of informal and formal writing.
2. Demonstrate knowledge/understanding of audience expectations, genres, and conventions appropriate to communicating in the discipline.
3. Demonstrate the ability to compose a document of at least 2000 words through multiple aspects of writing, including brainstorming, drafting, using sources appropriately, and revising comprehensively after receiving feedback on a draft.

Specific learning Outcomes for FST385

1. Demonstrate familiarity with key literature sources in food or fermentation science, and skill in obtaining information relevant to current “hot” topics in the field.
2. Critically evaluate source information and write concise summaries of food science concepts presented in lecture and discipline literature.
3. Employ rubrics to guide one’s own writing and the critique of peers’ writing and oral presentation. Respond to the writing of others, assuming both the role of collaborating author and editor.
4. Synthesize results of literature research to produce a paper addressing a current food or fermentation science topic. Practice drafting and revision, with incorporation of feedback provided by instructor and peer reviewers.
5. Advocate for a particular interpretation of scientific information and respond to challenges to one’s position, demonstrating critical analysis of data.

Approach to Achieving the Outcomes

A variety of research, writing and oral communication skills and issues will be introduced in the Tuesday sessions, within the context of scientific communication in the food science field. Small group sessions (10-15 students) on Thursdays will apply these skills to the investigation and exposition of specific topics. The first several meetings of the topic sessions will consist of instructor delivered lectures, and some brainstorming and response by students to formulate the approach to the topic. The middle portion of the term will consist of individual student research, drafting of papers, and the review process. In the latter third of the quarter, students will revise the term paper with incorporation of reviewer comments. They will also organize in small groups and debate controversial aspects of each section’s topic.

In this class you will write in a number of different genres that you are likely to encounter in your career as a food science professional. Some of these experiences will be informal, often completed in class, and minimally graded. Others will be formal assignments with an expectation of preliminary research, and sometimes revision.
Informal writing (writing to learn, exercise critical evaluation, and to give feedback to others – informally graded with full credit earned by a “good faith effort”). Examples of kinds of informal writing are below.

1) Self-evaluation - At the beginning and end of class. Results of the pre-course survey help both instructor and individual students prioritize writing goals. The post-class survey encourages students to reflect on progress and goal achievement.

2) Identify and summarize key points of a lecture

3) Editing: Shorten a 300 word article summary to 200.

4) Critiquing
   a) Evaluate and comment on good and bad examples of integration and citation of source material in a research paper.
   b) Peer review of short written works and of an oral presentation (debate) of other students

5) Class time to work on outlining and freewriting

6) Translating technical information for a non-scientifically trained audience. Write a non-technical abstract of another student’s research paper

7) Impromptu response to challenge question. Need to support an opinion or interpretation of scientific information provided in class. Also, constructing rebuttal arguments during debate.

Formal writing (assessed by rubrics)

1) Research paper draft, revision and abstract

2) Summaries of source articles that will be used for research paper

3) Formal peer review of another student’s research paper draft

4) Debate “script”
<table>
<thead>
<tr>
<th>Week</th>
<th>Tuesday - Large Group Meeting</th>
<th>Assignments</th>
<th>Thursday - Small Group Meeting</th>
<th>Assignments</th>
</tr>
</thead>
</table>
| 1    | 1) WIC and Types of Writing  
     2) Introduction to Section Topics | Pre-Class Writing Survey (Due in Monday of Week 2) | 1) Lecture 1: In depth introduction to section topic  
     2) Term Paper Assignment  
     3) In Class Assignment | Summary of key lecture points – write and pass (Due in class) |
|      | 2) Discuss Writing Survey Results  
     3) Elements of Good Scientific Writing | Establish three writing improvement goals (Due in class) | 300 word summary of introductory article on recitation section topic (Due Tue. Week 3) | |
| 2    | 1) Literature Research and Managing References (Hannah Rempel)  
     2) Students Begin Literature Research | 1) Topic title, bibliography and full text of sources.  
     2) 200 word summaries of each of three peer reviewed sources (Both due Monday of Week 2) | Lecture 3: Final lecture on section topic | Revise chapter summary from week 2 to reduce word count from 300 to 200. (Due in class) |
| 3    | 1) Discussing Research Results  
     2) In Class Assignment | Critique examples of literature integration and use of citation (Group exercise - due in class) | General Comments on Topic Summaries - discussion of developing the draft.  
     2) In Class Assignment  
     3) End of Class - instructor reviews of topic summaries returned. | Peer review of 200 word source article summary (Due in class) |
| 4    | 1) Incorporating Research Sources – skillful use of citation and avoidance of plagiarism  
     2) In Class Assignment | Peer review of drafts (Work on review during class, submit by Tuesday 11:59 pm) | 1) Instructor and Peer Critiques of Paper Drafts Returned - discussion of revision and adding an abstract.  
     2) In Class Assignment | Write an abstract of peer reviewed paper (Due in class) |
| 5    | 1) The Outline as a Tool for Organization  
     2) Time in class to free write and/or work on outline | No formal meeting. Section instructors available for consultations on paper draft. | Draft of term paper (Due Saturday) | |
| 6    | Guidelines for Peer Review of Term Taper. In Class Assignment | No formal meeting. Instructors available for consultation | Revised term paper (Due Sunday) | |
| 7    | Conducting “Scientific Arguments” - introduce the debate group assignment. | No formal meeting. Instructors available for consultation | Written and oral response to impromptu question (Group exercise – due in class). | |
| 8    | No formal meeting. Instructors available for consultation | No formal meeting. Instructors available for consultation | | |
| 9    | Debate Groups Working Session. | Debate groups working session. Practice debate segments. | | |
| 10   | Debates | Peer evaluation of group debate presentation (Due in class) | No class | |
### Comprehensive Assignments Calendar

<table>
<thead>
<tr>
<th>Assignment Title</th>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary of Lecture 1 Key Points*</td>
<td>Write and pass exercise</td>
<td>In class – Thursday of week 1</td>
</tr>
<tr>
<td>Pre-class Writing Survey*</td>
<td>Self-evaluation of writing skills using WIC developed instrument</td>
<td>Monday of week 2</td>
</tr>
<tr>
<td>Writing Goal Setting*</td>
<td>Definition of three areas of writing you wish to improve.</td>
<td>In class – Tuesday of week 2</td>
</tr>
<tr>
<td>300 Word Summary of Introductory Article</td>
<td>Summary of introductory article on section topic.</td>
<td>Tuesday of week 3</td>
</tr>
<tr>
<td>Revision of Peer’s Summary*</td>
<td>Edit the 300 word article summary of a peer to 200 words</td>
<td>In class – Thursday of week 3</td>
</tr>
</tbody>
</table>
| Paper Topic, Bibliography and source Summaries        | 1) Paper Title/Topic  
2) Bibliography of at least three peer reviewed sources  
3) 200 word summaries of each of three sources, plus full text of sources | Monday of week 3              |
| Critique of Citation Examples*                        | Short responses to good and bad examples of use of citation. (group exercise)| In class – Tuesday of week 4  |
| Peer Review Source Summary*                           | Rubric guided review of peer’s summary of one paper source                  | In class – Thursday of week 4 |
| Outline/Free write                                    | Tools to initiate the paper drafting process                                 | In class – Tuesday of week 5  |
| Term Paper Draft                                      | 2000 word draft                                                             | Saturday of week 5            |
| Peer review of term paper draft                       | Rubric guided review of peer’s term paper draft                             | Tuesday of week 6             |
| Abstract Practice*                                    | Write an abstract of the paper draft previously reviewed.                   | In class – Thursday of week 6 |
| Impromptu Response*                                   | Written and oral response to questions posed in class (group exercise)      | In class – Thursday of week 7 |
| Revised term paper                                    | 2000 word paper, including abstract.                                        | Sunday of Week 8              |
| Debate                                                | Group presentation                                                          | In class - Tuesday of week 10 |
| Debate evaluation*                                    | Rubric guided evaluation                                                    | In class – Tuesday of week 10 |
| Post Class Writing Survey*                            | Self-evaluation of writing skills                                           | Friday of week 10             |

*Minimally graded. A “good faith” effort receives full credit.
## Evaluation of Student Performance

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Scoring System</th>
<th>% of course Grade</th>
<th>Individual(I) / Group(G)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal writing (including in class writing, self and peer evaluations)</td>
<td>S/U</td>
<td>20</td>
<td>I (mostly) and G (a few)</td>
<td>10 assignments at 2 points each. Most of these are completed “in class”.</td>
</tr>
<tr>
<td>Summary of Introductory Article</td>
<td>0-100</td>
<td>4</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Topic title, bibliography and summaries of 3 sources</td>
<td>0-100</td>
<td>8</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Paper Draft</td>
<td>0-100</td>
<td>15</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Peer review of term paper draft</td>
<td>0-100</td>
<td>5</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Revised Paper</td>
<td>0-100</td>
<td>28</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Debate</td>
<td>0-100</td>
<td>20</td>
<td>G</td>
<td>Score weighted 67% instructors’ evaluation/33% peers’ evaluation</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Late Assignments

The following deductions will be applied to assignments submitted after the due date and time.

Up to 24 hr. = 10%, 24 to 48 hr. = 20%; 48-72 hr. = 30%; >72 hr. = 40%

_There are three situations in which late assignments will not be accepted:_

1) In-class writing or other activities must be completed during the scheduled class session.

2) The term paper involves review and revision. In order for the assignment to be completed in an efficient and effective manner, the review process must be timely. The paper for review must be submitted on time. Submit whatever you have completed by the due date, no late drafts will be accepted.

3) No assignments will be accepted after Wednesday of finals week.

### Grading scale

- **> 90%** “A” range (A-, 90-92.99; A, ≥ 93)
- **< 90 & ≥ 80** “B” range (B-, 80-82.99; B, 83-86.99; B+, 87-89.99)
- **< 80 & ≥ 70** “C” range (C-, 70-72.99; C, 73-76.99; C+, 77-79.99)
- **< 70 & ≥ 60** “D” range (D-, 60-62.99; D, 63-66.99; D+, 67-69.99)
- **< 60** “F”
No Required Text
Links to recommended research and writing references are provided in “Writing for Communicating Food and Fermentation Science”

Accommodations for Students with Disabilities (from OSU Disability Access Services)
Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 737-4098.

Expectations for Student Conduct/Academic Honesty
Participants in this class are expected to conduct themselves as dictated by official Oregon State University policy. Please see the following web page (from OSU Student Conduct & Community Standards) if you are unfamiliar with University expectations in this area, http://oregonstate.edu/studentconduct/offenses
Appendix 1: WORD-COUNT TABLE for PROPOSED WIC COURSE

The chart below demonstrates how students will satisfy the WIC requirement to write:
- At least 2,000 words that have been comprehensively revised after feedback, and,
- At least 5,000 words total.
- Please refer to specific assignments in the syllabus.

WORD-COUNT TABLE for PROPOSED WIC COURSE

<table>
<thead>
<tr>
<th>Assignment title</th>
<th>Will writing be graded or ungraded</th>
<th>Number of words</th>
<th>Individual or group assignment?</th>
<th>Will students revise the assignment?</th>
<th>Total word count</th>
</tr>
</thead>
<tbody>
<tr>
<td>In class practice – idea summaries, abstracts, response to peer writing, etc.</td>
<td>U</td>
<td>(75-200 words each for ten.</td>
<td>Both</td>
<td>N</td>
<td>1200</td>
</tr>
<tr>
<td>Introductory Article Summary</td>
<td>G</td>
<td>300</td>
<td>I</td>
<td>Y</td>
<td>300</td>
</tr>
<tr>
<td>Topic, Bibliography and 3 Source Summaries</td>
<td>G</td>
<td>650</td>
<td>I</td>
<td></td>
<td>650</td>
</tr>
<tr>
<td>Term Paper draft</td>
<td>G</td>
<td>2000</td>
<td>I</td>
<td>Y</td>
<td>2000</td>
</tr>
<tr>
<td>Peer review of term paper</td>
<td>G</td>
<td>250</td>
<td>I</td>
<td>N</td>
<td>250</td>
</tr>
<tr>
<td>Revised Term paper</td>
<td>G</td>
<td>2250</td>
<td>I</td>
<td>N</td>
<td>2250</td>
</tr>
<tr>
<td>Debate</td>
<td>G</td>
<td>1000</td>
<td>G</td>
<td>N</td>
<td>1000</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7650</td>
</tr>
</tbody>
</table>

The term “ungraded” here encompasses assignments that are minimally graded—that is, ones where students receive credit simply for turning the assignment in; where the writing is evaluated on a check minus, check, or check-plus basis; and so on.

One typed double-spaced page of 12 pt. text = approximately 250 words; thus, a 5-page assignment would translate here to 1,250 words.

In WIC courses, at least 25% of students’ grades must be based on individual writing. Individually written sections of group papers can count toward this requirement only if the sections are graded individually.
To meet the WIC requirement, students must revise a minimum of 2,000 words, with the revision work either spread over several shorter assignments or applied to a single 10-or-more-page assignment.
When a student revises a paper, the word count of the draft and the revision both count toward the total word count. Thus a 2000 word draft that is revised counts as 4000 words.
Appendix 2a: Writing for Communicating Food and Fermentation Science

Why is Writing Important?
Professionals in every discipline are expected to communicate effectively in writing for a range of different purposes, and to audiences of varied backgrounds and information needs. Professional organizations, including the Institute of Food Technologists, consider fluency with a number of different forms of written communication an essential career skill.

As the root of the word implies, communication is an indispensable element of community. In a Georgia State University “Writing Across the Curriculum Guide”, Janet Emig (1977) states that writing “socializes” thought, allowing it to be shared and compared, while also requiring an individual to “take responsibility” for its expression. As a future food science professional, your college writing experiences help prepare you to participate in a professional community whose lifeblood is the exchange of complex information, and whose integrity depends upon individual members being accountable for their ideas and opinions.

Academic writing also enhances learning. In particular, it is a means of refining critical thinking skills. In order to effectively communicate an idea, one must first labor to achieve a thorough understanding of the concept.

What are Some Common Elements of Good Scientific Writing?
- Accuracy and Precision. Information is subjected to careful analysis and precise expression, and interpretation is directly supported by the data.
- Clarity. Ideas are expressed in a straightforward manner, and references are clearly explained and documented.
- Brevity. Careful editing maximizes the impact of every word. Superfluous or tangential information is omitted. Figures and tables are employed to enhance communication.
- Audience Analysis. The level of the presentation is adjusted to fit the needs and background of the anticipated audience.

Content over style! In Shakespeare’s Macbeth, as his scheme to seize power unravels, Lord Macbeth laments that “(life) is a tale told by an idiot, full of sound and fury, signifying nothing” (Wilders 2004). So that this cynical assessment will not be applied to your scientific writing, always ensure that your work is thoroughly researched, contains accurately reported facts, and is characterized by well reasoned and supported interpretation. No degree of literary elegance will salvage work of deficient content.

OSU’s Writing Intensive Curriculum (WIC)
OSU also considers effective written communication an essential tool for your career. Accordingly, each major has a designated Writing Intensive Course, integrating writing and learning in that discipline. There are three specific WIC requirements and learning outcomes are:
1. Develop and articulate content knowledge and critical thinking in the discipline through frequent practice of informal and formal writing.
2. Demonstrate knowledge/understanding of audience expectations, genres, and conventions appropriate to communicating in the discipline.
3. Demonstrate the ability to compose a document of at least 2000 words through multiple aspects of writing, including brainstorming, drafting, using sources appropriately, and revising comprehensively after receiving feedback on a draft.

Overall, in a Writing Intensive Course you must write at least 5000 words, 4000 of which are in the revised paper (2000 words counted twice). The writing must represent at least 30% of your courses grade.

In Communicating Food and Fermentation Science you will complete a number of different kinds of writing assignments. These include in-class ungraded or minimally-graded responses, peer reviews in various formats, and the major assignment, a research paper. The final assignment for the course will be collaborative preparation and participation in a debate on a controversial aspect of your section topic. While each kind of writing assignment has unique objectives, in each you will be expected to demonstrate scientific and technical understanding, sound critical thinking, and be able to present your information in a manner that is both precise and concise. *Anyone who reads Dilbert knows that “pointy haired bosses” don’t have much time or patience for reading overly lengthy reports. Neither do your colleagues, collaborators, potential customers and business partners.*

**Types of Writing Assignments**

*Writing to Learn*

Several times during the quarter you will be asked to write a short summaries or responses to key topics presented in class, or to respond to another student’s writing. The length of each assignment is less than a page, and they will mostly be completed in class sessions. In-class writing will be minimally graded (full credit for a “good faith” effort).

*Peer Reviews*

Peer reviews guided by rubrics will help you develop skill in critiquing or editing the work of a peer (a frequently employed skill in our industry). In this class, the reviewer also benefits by gaining new insights from a different author’s approach to a similar topic. Authors of reviewed papers receive valuable suggestions on content, style and whether they have presented the material at the appropriate technical level.

*Research Paper*

The culmination of the writing in this course will be a literature research paper of (2000 ± 100 words). The technical level of the paper should be appropriate for a reader who is an upper division undergraduate in your option. This reader will have some fundamental knowledge of General and Organic Chemistry, Biology and Microbiology, and the application of these foundation sciences to Food Processing and Safety. This paper will be revised following peer and instructor critique, including evaluation of the content and style of the paper and appropriateness of the supporting sources.

*Abstracts and Summaries*

The ability to summarize key information in an abbreviated format, with a focus on impact is a critically important skill in our profession. Often scientific information must be “translated”, for an audience that may include any of business/marketing managers, investors, or consumers, with an assumption of limited background in the technical aspects of the discipline.

*Debate*

Within each section a debate topic will be formulated around a controversial issue associated with the section topic. In each section students will divide, with each half taking one side of the issue.
Students will adapt and extend their research to address the topic. Writing for debate requires critical analysis of data, just as the research paper. However, it also involves writing to advocate a position, or interpretation of the significance of the data, and to persuade the listener of the validity of that interpretation. Within the debate, there is also the need to write and deliver “on the spot” responses that critique the assertions of the opposing team.

Does all this writing sound like a tall order? The writing expectations in this course are intentionally elevated, but there are a number of resources to help you achieve these outcomes in your writing. Your writing of the major assignments should be guided by rubrics (a general rubric is found in appendix 2c) that describe characteristics of writing at different levels of proficiency. The rubrics not only serve as guides during the writing process, but will also become part of an extensive critique you will receive for the draft of your term paper. There are also a number of on- and off-campus resources to assist with the basics of literature research and writing.

**Research Strategies**

Proceed from the most general and introductory sources to the more specific.

1. Develop Keywords. Google search to learn some of the terminology (but do not use non-peer reviewed sources as references for your paper)

2. Reference books and review articles.
   a. Read for general understanding (although some may also provide sufficient specific detail to contribute key content to the paper)
   b. Note articles in bibliography of book chapters and review articles

3. Hannah Rempel is the Reference Librarian specializing in Food Science and related fields
   [http://osulibrary.oregonstate.edu/staff/rempelh](http://osulibrary.oregonstate.edu/staff/rempelh)

4. Food Science Databases. The scientific databases are a source of (mostly) primary research articles, with a few books and review articles mixed in. You should read the primary reports last, as they will be the most detailed and demanding, in terms of the background required to understand the article.
      i. Agricola
      ii. Food Science and Technology Abstracts
      iii. CAB Abstracts
      iv. Web of Science
      v. Medline

5. Literature available from industry

As you read, make notes and keep track of source information. You will need this later to provide citations within the text of your paper, and in the accompanying bibliography.
Some Writing Resources

- **OSU Writing Center**
  
  Located on the first floor of Waldo Hall. Trained student writing assistants can provide assistance with development and organization of your paper, as well as specific corrections of language and grammar. Appointments can be scheduled with staff at the Writing Center, or questions and papers can be submitted online. Be sure to contact the center at least a week in advance if you wish to have a paper reviewed. [http://cwl.oregonstate.edu/](http://cwl.oregonstate.edu/)

- **Writing Guides** (Valley Library Call Numbers in Parenthesis)
  
  - Web sites:
    - [http://owl.english.purdue.edu/owl/](http://owl.english.purdue.edu/owl/)
    - [http://writing-program.uchicago.edu/resources/grammar.htm#grammar](http://writing-program.uchicago.edu/resources/grammar.htm#grammar)

Use of Citation and the Avoidance of Plagiarism

In a scientific paper, interpretations should be supported, whenever possible, by appropriate reference to the body of Food Science knowledge. This is most commonly done by citation of published works in the field.

- Citation is appropriate whenever someone else’s work (e.g. ideas, data, figures or images) is incorporated into your writing. In this class the style of citation and bibliography is to follow the Journal of Food Science Style Guide (see appendix 2b)
- Even with citation, your writing should be your unique intellectual product, involving synthesis of ideas from other sources, adapted to your purpose. If you use citation and strive to synthesize information from your sources you should never cross the line of plagiarism.
- What is plagiarism? Intentionally or knowingly representing the words or ideas of another person as one’s own. The following OSU website further defines plagiarism and spells out associated penalties. ([http://oregonstate.edu/studentconduct/regulations/index.php#acdis](http://oregonstate.edu/studentconduct/regulations/index.php#acdis)).
- OSU utilizes an originality checking tool called “Turnitin”. This utility allows students and instructors to compare assignment text to a database of published work and assignments submitted by other students. The database generates a similarity score between the assignment under review and other works. We may elect to use Turnitin for this course.

References

Appendix 2b: FORMATTING REFERENCES – adapted from J. Food Science (IFT 2010)

Manuscripts intended for all sections of the journal and the two online journals must follow the name-year reference format specified in Scientific Style and Format: The CSE Manual for Authors, Editors and Publishers 2006, 7th ed. (Council of Scientific Editors, Reston, VA).

(a) In text
When the author’s name is part of the sentence structure, the citation consists of the year (in parenthesis) immediately following the name. Use “and others” rather than “et al.” In citations that are totally parenthetical, do not separate author and year with a comma. Use commas to separate publications in different years by the same author. Cite two or more publications of different authors in chronological sequence, from earliest to latest.

Examples
● Smith (1943) showed that . . .
● The starch granules are normally elongated in the milk stage (Brown 1956).
● . . . work (Dawson and others 1964) has shown that . . .
● . . . work (Dawson and Briggs 1984, 1987) has shown that . . .
● . . . work (Dawson 1984; Briggs 1999) has shown that . . .
● . . . work (Dawson 1984a,b) has shown that . . .

(b) In Reference section
List only those references cited in the text. References are listed alphabetically by the first author’s last name. Single author precedes same author with co-authors. When the author designation (name or names) is identical in two or more references, these references are sequenced by publication date (earliest to latest). Type references flush left as separate paragraphs. Within a citation, do not indent manually, let the text wrap. Use the following format.

- **Journal article:** Author(s). Year. Article title. Journal title. Volume number: inclusive pages.  
  *Example:*  
  Form of citation in text: (Smith and others 1999).

  **Note:** There are no periods in abbreviated journal titles, there is no space before or after the colon of the citation, and issue number may or may not be included behind the volume number, but must be provided for articles from periodicals that do not number pages continuously throughout each volume.

- **Electronic journal article:** Author(s). Year. Title of article. Name of electronic journal [serial online]. Volume number: inclusive pages. Available from [give site]. Posted date.  
  *Example:*  
  Form of citation in text: (Steinkraus 2002).

  **Note:** Because URLs are frequently discontinued, it is strongly recommended to give the URL address as it was when first cited.
**Book:** Author(s) [or editor(s)]. Year. Title. Edition or volume (if relevant). Place of publication: Publisher name. Number of pages.

*Example:*
Form of citation in text: (Spally and Morgan 1989).

**Chapter in book:** Author(s) of the chapter. Year. Title of the chapter. In: author(s) or editor(s). Title of the book. Edition or volume, if relevant. Place of publication: Publisher name. Inclusive pages of chapter.

*Example:*
Form of citation in text: (Rich and Ellis 1998).

**Conference Proceedings:** Editor(s). Title of publication. Number and name of conference; date of conference; place of conference. Place of publication: publisher; date. Extent. Notes.

*Example:*
Form of citation in text: (Webb and others 2008).

**Patent:** Name of the inventor(s) of the patented device or process; the word “inventor(s),” assignee. Date issued [year month day]. Title. Patent descriptor [name of country issuing the patent and the patent number].

*Example:*
Form of citation in text: (Harred and others 1972).

**Dissertation:** Author. Date of degree. Title [type of publication, such as dissertation, DPhil thesis, MSc thesis] Place of institution: Institution granting degree. Total number of pages. Availability statement.

*Example:*
Form of citation in text: (Smith 1988).

**Websites and other internet material:** Title or webpage or database [medium designator]. Edition (if relevant). Place of publication: Publisher; date of publication [date updated; date accessed]. Notes.

*Example:*
Form of citation in text: (FoodSciNet 2008)

For journal abbreviations and other examples of reference formats, please refer to articles in the latest issue of the journal or contact the Managing Editor at jfs@ift.org.
# Appendix 2c: Rubric for Written Communication in FST

<table>
<thead>
<tr>
<th></th>
<th>Excellent (86-100%)</th>
<th>Acceptable (85-62%)</th>
<th>Poor &lt;62%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td>Topic is well developed, effectively supported and appropriate for the assignment. Effective thinking is clearly and creatively expressed. Writing is appropriately concise, but complete.</td>
<td>Topic is evident with some supporting details; generally meets requirements of assignment. Efficiency of communication could be improved.</td>
<td>Topic is poorly developed. Supporting details absent or vague. Trite ideas and/or unclear wording reflect lack of understanding of topic and audience.</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>Writing is clearly organized with effective introduction and conclusion. Each segment relates to the others according to a carefully planned framework.</td>
<td>Writing demonstrates some grasp of organization with a discernible theme and supporting details.</td>
<td>Writing is rambling and unfocused, with main theme and supporting details presented in a disorganized unrelated way.</td>
</tr>
<tr>
<td><strong>Reasoning</strong></td>
<td>Substantial, logical, &amp; concrete development of ideas. Assumptions are made explicit. Details are germane, original, and convincingly interpreted.</td>
<td>Offers somewhat obvious support that may be too broad. Details are too general, not interpreted, irrelevant to thesis, or inappropriately repetitive.</td>
<td>Offers simplistic, undeveloped, or cryptic support for the ideas. Inappropriate or off-topic generalizations, faulty assumptions, errors of fact.</td>
</tr>
<tr>
<td><strong>Language, Grammar, and Usage</strong></td>
<td>Writing is free of errors in grammar, punctuation, capitalization, and spelling. Paragraphs are well-focused and coherent with a logical connection of points. Voice and style are appropriate for the type of paper assigned.</td>
<td>Writing has some errors but these are not too distracting. Paragraphs occasionally lack focus or coherence. The connection of ideas is sometimes disjointed. Voice and style don’t always fit the type of paper assigned.</td>
<td>Errors are frequent and distracting, so that it is hard to determine meaning. Paragraphs generally lack focus or coherence. There is not a logical connection of ideas or flow of sentences. Voice and style are not appropriate for the type of paper assigned.</td>
</tr>
</tbody>
</table>

*Adapted from Brenau University and Barbara Walvoord, http://www.winona.edu/air/rubrics.htm*

*Draft Date: 11.11.05, by T. Shellhammer, w/corrections and additions 9/12/06, 4/9/2013 by D. Smith*
### Appendix 2d: Rubric for Oral Communication in FST

<table>
<thead>
<tr>
<th></th>
<th>Excellent (86-110%)</th>
<th>Acceptable (70-85%)</th>
<th>Poor (&lt;70%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td>Topic is well developed, effectively supported and appropriate for the assignment. Effective thinking is clearly and creatively expressed</td>
<td>Topic is evident with some supporting details; generally meets requirements of assignment.</td>
<td>Topic is poorly developed. Supporting details absent or vague. Trite ideas and/or unclear wording reflect lack of understanding of topic and audience.</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>Oral presentation is clearly organized with effective introduction and conclusion. Each segment relates to the others according to a carefully planned framework</td>
<td>Oral presentation demonstrates some grasp of organization with a discernible theme and supporting details.</td>
<td>Oral presentation is rambling and unfocused, with main theme and supporting details presented in a disorganized unrelated way.</td>
</tr>
<tr>
<td><strong>Delivery</strong></td>
<td>Speaker uses appropriate language. Smooth, effective delivery. Good voice control, eye contact, and physical demeanor. Restates and summarizes appropriately.</td>
<td>Speaker appears proficient with language, vocal and physical expression.</td>
<td>Speaker appears unpracticed. Unnecessary pauses, filler words. Problems with voice control, eye contact, or posture. Incorrect or inappropriate language.</td>
</tr>
<tr>
<td><strong>Visual Aids</strong></td>
<td>The presentation includes appropriate and easily understood visual aids, which the presenter refers to and explains at appropriate moments in the presentation.</td>
<td>The presentation includes appropriate visual aids, but there are few and in a format that makes them somewhat difficult to understand, or the speaker does not refer to or explain them in the presentation.</td>
<td>The presentation includes no visual aids or includes visual aids that are inappropriate or too small or messy to be understood. The speaker makes no mention of them in the presentation.</td>
</tr>
<tr>
<td><strong>Responsiveness to Audience</strong></td>
<td>Stimulates questions. Responds to questions with critical thinking and knowledge beyond data in audiovisuals.</td>
<td>Generally responsive to questions. May not provide correct answers, but attempts to supply information</td>
<td>Doesn't understand questions. Responds poorly to questions</td>
</tr>
</tbody>
</table>

*Adapted from Brenau University, Proceedings of the 2003 American Society of Engineering Education, and Dan’s handout*

*Draft Date: 9.18.05, by L. Goddik with corrections 9/12/06*
Appendix 3: Assignment - Pre-Course Writing Self-Assessment

Due in class on Tuesday of Week 2

This survey will be administered both before and after the course. Not only will it assist me in evaluating learning outcomes, but I hope that thinking about your responses to the questionnaire will help you develop your own writing goals for the quarter.

Q1. Self evaluation: please assess your technical report writing skills in the following areas. (Only complete the “before” assessment at this time). Scale: 5= very strong; 1= very weak
Q2. List three characteristics of “good writing” in the field of Food Science & Technology.

a. 

b. 

c. 

Q2. List three characteristics of “good writing” in the field of Food Science & Technology.

a. 

b. 

Q3. *Prior to this course, in courses within or related to your major, how many times have you revised and re-submitted drafts of your papers following peer and/or instructor review?*

1. NEVER
2. 1 time
3. 2-3 times
4. More than 3 times

Q4. If you answered yes to Q3, are there notable differences between the ways you have used instructor feedback and peer feedback on your writing?

1. NO
2. YES  If YES, please describe these differences in the space below.

---

This survey was originally developed by Tracy Ann Robinson of the OSU Writing Intensive program (It has been adapted for use in FST with her permission).
Appendix 4a

Overview of Recitation on Food Authenticity and Traceability

Lectures to be delivered in the small (Thursday) sections by the section instructor

1) **Lecture 1**: What are the Needs for Authentication and Traceability of Foods and Beverages?

2) **Lecture 2**: Chemical Methods for Determining Origin and/or Authenticity of Composition

3) **Lecture 3**: Biochemical/Microbiological Methods for Determining Origin and/or Authenticity of Composition

Example Assignments

1) Writing a concise summary of a scientific article

2) Literature review (term) paper
Appendix 4b

Assignment: Writing a Concise Summary of a Scientific Article

Assigned: Thursday of Week 3

Due: Tuesday of Week 4

In class revision: Thursday of Week 4

Summarize the content of the following article in 300±25 words.


- Your summary should begin with one to two sentences that state the purpose, scope and audience of this chapter.
- The body of the summary should be one or two paragraphs providing specific examples that illustrate the key information presented.
- A concluding sentence or two should address the impact or importance of this article to the food science community.

Writing within the designated word count is important, and will be part of the evaluation of this assignment. Expressing scientific ideas concisely, but with accuracy and precision, is a crucial skill for a food science professional.
Appendix 4c - Assignment: Literature Research Paper Assignment

Due Dates
Title/Topic, Bibliography and Summary of Three References Due: **Monday of Week 4**
Draft of Full Paper Due: **Saturday of Week 5**
Revised Paper Due: **Sunday of Week 8**

Audience level and tone: *The paper is to be written at a technical level appropriate for individuals with a college food science background similar to your own. (See note on page two regarding the different level required for the separate abstract). Writing style should be formal, mimicking the tone found in your source articles*

Step 1
Select two examples of food authentication / traceability for which distinctly different means of detection are utilized. One should rely primarily on chemical detection, the other on biochemical or microbiological detection method(s). Utilize background for class lectures and readings to identify suitable subjects. Some possible subjects:

- Detection of substitution of low value fish in fresh or processed markets
- Identification of GMO in agricultural products
- Authentication of high value oils (e.g. olive)
- Authentication of coffee to type and geographic origin
- Authentication of organically grown products
- Authentication of wine terroir
- Identification of substitution of lower value juices for pomegranate
- Detection of melamine contamination in milk powder
- Food allergen or gluten detection
- Identifying source of contamination in a food borne illness outbreak
- Kosher/Halal food authentication

You may propose others.

Research the topics and identify **at least** five peer reviewed sources. These may include any combination of books, book chapters, reports by government agencies with regulatory authority, and journal articles. The requirement of peer review in this instance should be taken to mean that the sources selected must be published by a scientific publisher or agency that requires review of the by experts in the content area prior to acceptance of the manuscript for publication. Feel free to read other kinds of sources to further develop your understanding of the subject, but base the content of your paper on the required peer reviewed sources. This provides the best assurance of validity of information and freedom from bias.
By **Monday of Week 4**, submit your proposed paper title and a two or three sentence description of the topics you have selected. Along with this, submit 200±25 word summaries of each of three of the sources in the bibliography.

**Step 2**

You will receive brief feedback on this assignment, with suggestions for additional research or redirection of the topic, if necessary. Complete your research and develop a 2000±100 word draft of the full paper. During week 5 there will be some time in class to organize your ideas into an outline, and do some free writing to “break the ice” on drafting the paper. Include a bibliography with the draft and utilize citation in the format of the class style guide (appendix 2b). The bibliography is not included in the word count for the paper. This draft is due on **Saturday of Week 5**.

The paper should begin by briefly introducing both topics to be covered and providing a rationale for their selection. In the body of the paper, devote one section to each of the two topics. Provide concluding remarks highlighting the current state of detection, and indicating areas in which further development of methodology, or implementation of testing would be desirable.

For each topic address the following questions.

1) What is the societal (health, economic, etc.) interest in testing for composition, origin, or contamination, of the selected food or beverage?
2) What method(s) are available to make the desired determinations?
3) What is/are the scientific bases of the testing methods?
4) Is one method considered preeminent in this area?
5) Is optimum testing currently being done on this food product. If not is the issue
   a) Technological?
   b) Economic?
   c) Political?
   d) Or some combination of the above?

**Step 3**

Your draft will be reviewed by both the instructor and a peer, utilizing the writing rubric (appendix 2c) and the above paper objectives. Utilize the feedback from the two reviewers to inform revision and produce a final draft of the paper. After you have completed the final draft, write a separate 250 word abstract of your paper. The abstract should be directed to a different audience. Write the abstract at a technical level of a high school graduate with limited training in science. Emphasize the importance of authenticity/origin determination, in terms of potential economic or health consequences of unregulated foods. Demonstrate benefits that can be provided by implementing appropriate testing technologies. The final paper and accompanying abstract are due on **Sunday of Week 8**.
Appendix 5: Format for Oral Communication Exercise in WIC Class

Students in the FST WIC offering will participate in an oral exercise. It will be a group exercise involving all students in a given section of WIC class (approximately 10 students per group). The subject matter for the exercise will be that upon which their term papers were based. We envision a debate-type format. These exercises will take place during the multi-section class meetings (presumably during week 9 and/or 10). Hence, students will debate within their given sections, but all students will view all debates. The details of this exercise will undoubtedly change over the first iterations of the course. As a starting point, the following format is proposed.

Groups → Students within a section will be divided into two groups. For example, if there are 10 students per section, then each section will have two groups of 5. The two groups will debate an agreed upon topic.

Subject Matter → The question debated in this exercise will be directly related to the topic covered in their term paper. The question debated in this exercise will be approved by the instructor for that particular section. For example, if students write their term paper on the risks/benefits of synthetic non-nutritive sweeteners, then their debate may address the two sides of the question of whether or not relevant “notifying” statements should be mandatory on products containing such sweeteners.

Time of Presentation → Each debate will be limited to 20 minutes. We expect to have three sections per term; thus all three debates can be covered in a single multi-section class meeting (80 minutes).

Rules of Engagement → (1) All students must present orally. (2) Each student is allotted a decided upon minimum amount of time to present their statement/argument. The following is an example.

In this example each student is expected to speak for 2 minutes. The listing below is in the order presentations are to be made.

Team A: Students 1&2 each have 2 minutes to make Team A’s opening statement (4 min)
Team B: Students 1&2 each have 2 minutes to make Team B’s opening statement (4 min)
Team B: Students 3&4 each have 2 minutes to rebut Team A’s opening statements (4 min)
Team A: Students 3&4 each have 2 minutes to rebut Team B’s opening statements (4 min) Team A: Student 5 makes closing argument for Team A (2 min)

Team B: Student 5 makes closing argument for Team B (2 min)

Maximum total time for speaking = 20 minutes

(The order above was based on giving the students that are presenting the rebuttal a little time to consider the content of the other side’s opening statement. As designed, students 1, 2 & 5 can have prepared presentations. Students 3 & 4 will need to do a bit more thinking-on-their-feet. It seems reasonable to allow students within a group to determine who will take which speaking role.)