

## SME REPORT

**Course Reviewed:** FST 1000 Introduction to Food Science

**Prepared By:** Dr. Courtney Simons, Consultant

**Completed:** May 7, 2018

**Submitted To:** Lorain Community College

**Consultant Credentials:** Dr. Simons has a BS in Food Science, MEd in Education, and PhD in Cereal Science. Before academia, he worked in the allied food industry in the area of research, technology transfer, food regulation, and food safety consulting for 12 years. Dr. Simons has been teaching at Wright State University Lake Campus, Celina as an Assistant Professor in food science for the past 4 years. During that time, he developed three new food science programs and at least 18 new food science classes.

**Review Method:** Review of course was completed based on rubric developed by Consultant. The rubric was designed to include consideration for course content, course quality, course design and relevance to industry.

**SUMMARY:** This course provides good introductory content on food science. However, it needs major improvements. The rubrics below indicate where the gaps are and comments to address them. Recurring flaws include a lack of lesson objectives and very little connection between content delivered and assessment activities. PowerPoints need to be overhauled to improve quality of delivery. The current text-heavy layout and lack of compelling illustrations is likely to breed cognitive overload and reduce student engagement. A disproportionate distribution of lecture and assessment was observed throughout the course. For example, some weeks, had one lecture while others had two or three or none at all. Only one quiz was included and no final assessment submitted.

### MATERIALS SUBMITTED FOR WEEK 1

**Table 1.** Review rubric for **syllabus**. Reviewed on May 2 & 3, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
1.11 Design format includes instructor name, contact information, office hours, delivery format, credit hours, class time, and location		X	
1.12 Textbook or other reference to required reading are provided	X		
1.13 Recommended text(s) is appropriate for this course		X	
1.14 Course prerequisites if any, are stated	X		
1.15 The syllabus has a student/learning-oriented tone			X
1.16 Course outcomes are provided	X		
1.17 Breakdown of course topics by chronological order is included	X		
1.18 A list of course assessment activities is provided	X		
1.19 Assessment is linked to learning outcomes			X
1.20 Assessment methods are diverse	X		

1.21 Grading criteria is provided	X		
1.22 Brief outline of instructor teaching philosophy that guides instructor's teaching practice is included			X
1.23 Information about pertinent academic policies, including academic integrity, accommodating student disabilities, feedback and class attendance is provided			X
<p><b>Comments:</b></p> <p>1.11 Class location was not included</p> <p>1.13 Food Science by Norman Potter is a good text that provides fundamental principles of food science. However, there is a need to update it for easier readability and student-engagement. There has not been an updated edition of this text since it was published in 1995.</p> <p>1.14 Since this course includes food chemistry, students should be advised that they will need a basic understanding of chemistry. High school chemistry should be adequate.</p> <p>1.15 Syllabus is written in the traditional teacher-oriented tone. You may consider reworking to include a friendly welcome and integrate first-person words such as "you" and "I" and "we" as much as possible</p> <p>1.19 I suggest that you make it clear in the syllabus the link between the given assessments and learning outcomes.</p> <p>1.22 A brief outline of your teaching philosophy and values will provide students with more information about you, and will make them better aware of the rationale behind your strategies and expectations for them</p> <p>1.23 Including academic and other relevant policies may not only be required by your department but will be helpful in providing students with information that will help to improve their success.</p>			

**Table 2.** Review rubric for **course objectives** in the syllabus. Reviewed on May 2 & 3, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
2.11 Each learning objective is distinct from the others	X		
2.12 Objectives utilize active verbs that can be measured			X
2.13 Objectives are presented in a manner that learners will clearly know what they will be competent to do by the end of the course			X
2.14 Objectives demonstrate various levels of skills on the Bloom's Taxonomy of educational objectives			X
2.15 Course objectives are relevant to employers in the food industry		X	
2.16 Course objectives represent no less than the minimum level of knowledge and skills that students will need to have to provide entry-level leadership in the food industry		X	
<p><b>Comments:</b></p> <p>2.12 The objectives are written with a focus mainly on knowledge to be gained. Revise to integrate industry-relevant and measurable skills to be learned</p>			

**Table 3.** Review rubric for **PowerPoint presentation on “A short history of food”**. Reviewed on May 2 & 3, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>3.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>3.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>3.13</b> PowerPoint contains accurate and high-quality content	X		
<b>3.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X
<b>3.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)		X	
<b>3.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>3.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry		X	
<b>Comments:</b> <b>3.11</b> Link to course objectives  <b>3.12</b> Add lesson objectives  <b>3.14</b> Too much text and no images make slides unengaging and potentially overbearing  <b>3.15</b> Class activities integrated but limited  <b>3.16</b> Link this presentation to the assessment that relates to the learning objectives accomplished  <b>3.17</b> The historical perspective in this lesson is good information should is not critical for students to know to be successful in the industry			

**Table 4.** Review rubric for **supplementary video on “Eating the Past: Why and how to study food history”**. Reviewed on May 2 & 3, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>4.11</b> Students are informed on how this video links to the overall course objectives			X
<b>4.12</b> Students are informed on specific lesson objectives to be achieved as a result of watching this video			X
<b>4.13</b> Video presentation contains accurate and high-quality content	X		

4.14 The content is appropriate for the level of the learner	X		
4.15 At the end of watching the video, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
4.16 This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry			X
<b>Comments:</b>			
4.11 Link to course objectives			
4.12 Add lesson objectives			
4.15 Link to assessment			
4.16 This video is good information but would not be considered relevant to the knowledge or skills students need for industry. A shorter video (5-10 minutes) addressing the topic is recommended instead of the current one that is over an hour long.			

**Table 5.** Review rubric for **supplementary reading on “Biomolecules”**. Articles include “Functions of fat in food”, “Trehalose”, and “Triglycerides” – Why they matter”. Reviewed on May 2 & 3, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
5.11 Students are informed on how this reading links to the overall course objectives			X
5.12 Students are informed on the specific lesson objectives to be achieved as a result of reading this material			X
5.13 Supplementary reading contains accurate and high-quality content		X	
5.14 The content is appropriate for the level of the learner			X
5.15 Source of content is cited with an appropriate citation style or is a direct link			X
5.16 At the end of the reading, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
5.17 This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b>			
5.11 Link to course objectives			
5.12 Add lesson objectives			
5.14 Good content but this topic is introduced too early. Let this reading wait until you have addressed the basic structure and function of fats and carbohydrates			
5.15 Use an appropriate citation style such as APA			
5.16 Link to assessment			

**Table 6.** Review rubric for **PowerPoint presentation on “Carbohydrates”**. Reviewed on Reviewed on May 2 & 3, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>6.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>6.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>6.13</b> PowerPoint contains accurate and high-quality content		X	
<b>6.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation		X	
<b>6.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>6.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>6.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<p><b>Comments:</b></p> <p><b>6.11</b> Link to course objectives</p> <p><b>6.12</b> Add lesson objectives</p> <p><b>6.13</b> Note that the title of “Biochemistry” is inaccurate. This lesson would instead fall under the topic of “Food chemistry”. I suggest including discussion on the functional properties of starch such as gelation and retrogradation (staling). An understanding that starch will behave differently depending on source will also be helpful for learners to know. You mentioned cellulose as a non-digestible food component. You may also highlight its role in digestion given the importance of fiber to consumers. Also include the fact that cellulose can be modified to make food ingredients such as carboxymethyl cellulose as a texture modifier.</p> <p><b>6.16</b> Link to assessment</p>			

**Table 7.** Review rubric for **PowerPoint presentation on “Lipids”**. Reviewed on May 2 & 3, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>7.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>7.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>7.13</b> PowerPoint contains accurate and high-quality content		X	

7.14 PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation		X	
7.15 PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
7.16 At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
7.17 This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b> 7.11 Link to course objectives  7.12 Add lesson objectives  7.13 Note that the title of “Biochemistry” is inaccurate. This lesson would instead fall under the topic of “Food chemistry”. You should articulate more on lipid functionality. A single slide addressing this topic appears inadequate. Dedicate at least one slide to discuss each functional property of food lipids. Lipid rancidity is an important topic to industry and should be covered in more detail including mechanism and prevention  7.16 Link to assessment			

**Table 8.** Review rubric for **PowerPoint presentation on “Amino acids”**. Reviewed on May 2 & 3, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
8.11 Students are informed on how this presentation links to the overall course objectives			X
8.12 Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
8.13 PowerPoint contains accurate and high-quality content		X	
8.14 PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation		X	
8.15 PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
8.16 At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
8.17 This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b> 8.11 Link to course objectives			

**8.12** Add lesson objectives

**8.13** Note that the title of “Biochemistry” is inaccurate. This lesson would instead fall under the topic of “Food chemistry”. The primary structure of protein was addressed but not the others (secondary, tertiary and quaternary). Complete the discussion on protein structure by including all four structural levels and then link it to the concept of denaturation. Discuss in more depth how denaturation is applied in food processing e.g. the effect of heat on meat, the effect of lactic acid in cheese and yogurt making, and the effect of salts during meat curing. The functional properties of proteins are missing from the presentation e.g. gelation, water absorption, foaming, emulsification etc. The slide on “how to calculate calories” appears to be a misfit that distracts from the focus on protein. That topic could be covered instead in a lesson on nutritional properties of food.

**8.16** Link to assessment

**Table 9.** Review rubric for **laboratory exercise on “Water activity and moisture content”**. Reviewed on May 2 & 3, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>9.11</b> Students are informed on how this lab links to the overall course objectives			X
<b>9.12</b> Students are informed on specific lesson objectives to be achieved as a result of doing this lab			X
<b>9.13</b> A background/introduction to the lab is given that clearly articulates the food science principles to be learned		X	
<b>9.14</b> The lab materials and methods are presented in a clear manner, enabling students to comprehend and follow procedures independently		X	
<b>9.15</b> Appropriate assessment questions are given at the end of the lab to ensure that learning objectives are met		X	
<b>9.16</b> The lab can be completed within a reasonable time as set in the syllabus (2 hours)	X		
<b>9.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b> <b>9.13</b> Extensive background given on water activity but proportionately limited information given on moisture content theory and methods used. I suggest revising the equation for water weight removed from sample to be calculated as: (wet weight of sample + tare weight) – (final weight of dried sample including container). Note that bacteria growth is inhibited below a water activity of 0.9 and not at 0.91 as you indicated. Include the water activity graph by Ted Labuza (1972) to inform students on the various chemical and biological effects of water activity. <b>9.4</b> The “Using Pawkit Water Activity Meter” link associated with this lab was not accessible. Please update to make link active.			

MATERIALS SUBMITTED FOR WEEK 2

**Table 10.** Review rubric for PowerPoint presentation on “Food Quality”. Reviewed on May 4, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
<b>10.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>10.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>10.13</b> PowerPoint contains accurate and high-quality content		X	
<b>10.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X
<b>10.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>10.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>10.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<p><b>Comments:</b></p> <p><b>10.11</b> Link to course objectives</p> <p><b>10.12</b> Add lesson objectives</p> <p><b>10.13</b> You need to provide a more in-depth review the labeling changes. There are several more changes that have not been addressed. Use visual aid to illustrate the difference between the new and old label. Let students know that the new labelling system will take full effect by June 2018. It’s important to recognize that there is a difference between food safety and food quality. The way it’s presented, students will think they are the same. Please make this differentiation.</p> <p>Under the discussion on “federal grade standards” you need to make it clear that there is a difference between inspection and grading and indicate what that difference is. Make students know which arm of the USDA is responsible for inspection versus grading. It will be more effective to use visual aids to illustrate differences in grades.</p> <p><b>10.16</b> Link to assessment</p>			

**Table 11.** Review rubric for PowerPoint presentation on “Spoilage, microbes and mechanism”. Reviewed on May 4, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory



<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>11.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>11.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>11.13</b> PowerPoint contains accurate and high-quality content	X		
<b>11.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X
<b>11.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>11.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>11.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<p><b>Comments:</b></p> <p><b>11.11</b> Link to course objectives</p> <p><b>11.12</b> Add lesson objectives</p> <p><b>11.13</b> There is a typo in your title. Change the word “say” to “stay” Review water activity limits for bacteria, yeast and molds. These organisms generally start growing at water activity of 0.8, 0.7 and 0.75 respectively.</p> <p>I suggest removing the word “mechanism” from the title since you did not discuss the actual mechanisms of spoilage but rather gave a general overview of the factors influencing spoilage</p> <p><b>11.16</b> Link to assessment</p>			

**Table 12.** Review rubric for **PowerPoint presentation on “Preservatives and shelf-life”**. Reviewed on May 4, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>12.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>12.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>12.13</b> PowerPoint contains accurate and high-quality content	X		
<b>12.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X

<b>12.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>12.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>12.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b> <b>12.11</b> Link to course objectives  <b>12.12</b> Add lesson objectives  <b>12.13</b> Since the first part of your lecture on pest control is so extensive, I suggest presenting it as a separate lecture rather than integrating it here.  <b>12.16</b> Link to assessment			

**Table 13.** Review rubric for **supplementary reading on “Ideal antioxidant for your product”**. Reviewed on May 4, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>13.11</b> Students are informed on how this reading links to the overall course objectives			X
<b>13.12</b> Students are informed on the specific lesson objectives to be achieved as a result of reading this material			X
<b>13.13</b> Supplementary reading contains accurate and high-quality content	X		
<b>13.14</b> The content is appropriate for the level of the learner		X	
<b>13.15</b> Source of content is cited with an appropriate citation style or is a direct link	X		
<b>13.16</b> At the end of the reading, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>13.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b> <b>13.11</b> Link to course objectives  <b>13.12</b> Add lesson objectives  <b>13.14</b> So far in this course you have not covered mechanisms of spoilage at the depth of individual chemical reactions. Therefore, covering this topic in class would be more beneficial to the students than as an independent reading.  <b>13.16</b> Link to assessment			

**Table 14.** Review rubric for “Food History Report” assessment. Reviewed on May 4, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
<b>14.11</b> Students are informed on the course and/or lesson objectives to be measured in this assessment			X
<b>14.12</b> The assessment is consistent with learning outcome(s) supplied, allowing instructor to know if students have learned the intended lesson			X
<b>14.13</b> The assessment instructions are clear enough for students to know what they are being asked to do and how they will be graded (includes total points to be earned and question rubric where appropriate)			X
<p><b>Comments:</b></p> <p><b>14.11</b> Link to learning outcomes</p> <p><b>14.12</b> Link to learning outcomes.</p> <p>It appears that this assessment is out of place. It should have been done in week 1 where some history was addressed. Week 2 is focused on food quality which should be what you are evaluating students on.</p> <p><b>14.13</b> I think you want students to address historical developments that led to the passing of a particular food law. Make it clear that this is what you mean. You addressed both “practice” and “law”. Just focus on “law”. You mentioned the “Naked Jungle” and its role in the meat industry. Please note that the book was simply called “The Jungle”. Instead of asking students to cite exactly 3 citations, I suggest asking for “at least 3” to avoid limiting their research. I would suggest encouraging them to cite only credible sources; restricted only to research papers in peer reviewed journals, books, and government websites including the USDA and FDA.</p> <p>You asked for 1 to 2 pages but based on the rubric, students are penalized for submitting less than 1 pages</p> <p>You asked for exactly 3 citations but based on rubric you reward students for giving more and penalize them for giving less</p> <p>Based on the rubric, students “meet expectations” for grammar if they have “few misspellings”. What exactly does this mean? How many are seen as “few”?</p> <p>I see that the rubric give students the lowest point for using news articles as a source, and the highest for using books and university sources. Note however, that sourcing from a newspaper does not make the article bad and sourcing from a book or university source does not necessarily make the source good. The Instructor will have to examine each source to assess credibility. I suggest reviewing the rubric to make the credibility requirement include general principles of source selection rather than pinpointing source examples to include or exclude.</p> <p>I notice that students were asked to read Chapter 16 in their textbook this week but they were not taught nor assessed on the topics covered in that reading.</p>			

MATERIALS SUBMITTED FOR **WEEK 3**

**Table 15.** Review rubric for **PowerPoint presentation on “Fermentation”**. Reviewed on May 4, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>15.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>15.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>15.13</b> PowerPoint contains accurate and high-quality content		X	
<b>15.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X
<b>15.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>15.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>15.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b>			
<b>15.11</b> Link to course objectives			
<b>15.12</b> Add lesson objectives			
<b>15.13</b> The image of the canned fish does not support the content on slide number 5. It would be beneficial to the students if you include examples of different food fermentation processes. This can be done by outlining the steps in the PowerPoint or integrating short videos in the presentation.			
<b>15.16</b> Link to assessment			

**Table 16.** Review rubric for **supplementary video on “Microorganisms in your food”**. Reviewed on May 4, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>16.11</b> Students are informed on how this video links to the overall course objectives			X
<b>16.12</b> Students are informed on specific lesson objectives to be achieved as a result of watching this video			X
<b>16.13</b> Video presentation contains accurate and high-quality content	X		
<b>16.14</b> The content is appropriate for the level of the learner	X		

<b>16.15</b> At the end of watching the video, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>16.16</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b>			
<b>16.11</b> Link to course objectives			
<b>16.12</b> Add lesson objectives			
<b>16.15</b> Link to assessment			

**Table 17.** Review rubric for **supplementary video on “History of Bread”**. Reviewed on May 4, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>17.11</b> Students are informed on how this video links to the overall course objectives			X
<b>17.12</b> Students are informed on specific lesson objectives to be achieved as a result of watching this video			X
<b>17.13</b> Video presentation contains accurate and high-quality content	X		
<b>17.14</b> The content is appropriate for the level of the learner	X		
<b>17.15</b> At the end of watching the video, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>17.16</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry			X
<b>Comments:</b>			
<b>17.11</b> Link to course objectives			
<b>17.12</b> Add lesson objectives			
<b>17.15</b> Link to assessment			
<b>17.16</b> Interesting, but a lesson on the history of bread is not essential. A video focused on the fermentation process in bread making would have been more beneficial in meeting learning outcomes.			

**Table 18.** Review rubric for **supplementary reading on “Raw food is rich in bacteria, not just nutrients”**. Reviewed on May 4, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>18.11</b> Students are informed on how this reading links to the overall course objectives			X
<b>18.12</b> Students are informed on the specific lesson objectives to be achieved as a result of reading this material			X

<b>18.13</b> Supplementary reading contains accurate and high-quality content		X	
<b>18.14</b> The content is appropriate for the level of the learner		X	
<b>18.15</b> Source of content is cited with an appropriate citation style or is a direct link			X
<b>18.16</b> At the end of the reading, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>18.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b>			
<b>18.11</b> Link to course objectives			
<b>18.12</b> Add lesson objectives			
<b>18.15</b> Use appropriate citation style e.g. APA			
<b>18.16</b> Link to assessment			

**Table 19.** Review rubric for **PowerPoint presentation on “Bacteria”**. Reviewed on May 4, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>19.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>19.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>19.13</b> PowerPoint contains accurate and high-quality content		X	
<b>19.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X
<b>19.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>19.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>19.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b>			
<b>19.11</b> Link to course objectives			
<b>19.12</b> Add lesson objectives			
<b>19.13</b> Indicate the year when ServSafe listed these “six pathogens”. This is important since the pathogens may change from year to year depending on outbreak statistics.			

On slide 4, bacteria is presented as helping to digest food. However, students should not come away from the lesson believing that E.coli is essential in food breakdown and absorption. Instead, its beneficial effect in gut fermentation should be highlighted.

The title of slide 5 says “types of hazards” but the types of hazards was not addressed. Remove this heading.

The sub title of the presentation said “friend or foe”, but bacteria as a “friend” was scarcely addressed.

**19.16** Link to assessment

**Table 20.** Review rubric for **laboratory exercise on “Enzymatic browning of apples”**. Reviewed on May 4, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
<b>20.11</b> Students are informed on how this lab links to the overall course objectives			X
<b>20.12</b> Students are informed on specific lesson objectives to be achieved as a result of doing this lab	X		
<b>20.13</b> A background/introduction to the lab is given that clearly articulates the food science principles to be learned	X		
<b>20.14</b> The lab materials and methods are presented in a clear manner, enabling students to comprehend and follow procedures independently	X		
<b>20.15</b> Appropriate assessment questions are given at the end of the lab to ensure that learning objectives are met		X	
<b>20.16</b> The lab can be completed within a reasonable time as set in the syllabus (2 hours)	X		
<b>20.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b>			
<b>20.15</b> Question 2 is vague. “Other types of tests” to determine what?			
The instructor hint suggest that different types of apples will be used in the experiment but this was not mentioned in the procedure. Therefore, this “hint” is not necessary. Furthermore this would not be the way to give the students a hint since the way it is presented, it would be merely giving away the answer instead of serving as a true hint.			
<b>Other Comment:</b> This lab would serve better in week 2 which addressed food spoilage.			

MATERIALS SUBMITTED FOR **WEEK 4**

**Table 21.** Review rubric for **PowerPoint presentation on “Food labels”**. Reviewed on May 4, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
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<b>21.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>21.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>21.13</b> PowerPoint contains accurate and high-quality content		X	
<b>21.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation		X	
<b>21.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>21.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>21.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<p><b>Comments:</b></p> <p><b>21.11</b> Link to course objectives</p> <p><b>21.12</b> Add lesson objectives</p> <p><b>21.13</b> The term “misbranding” goes beyond what is on the label. Therefore include other FDA criteria that determines whether or not food is misbranded</p> <p>On slide 9 you suggest that the new label scheme was a result of FSMA. However, these changes does not fall under the new FSMA requirements. The labeling rules was passed much later (2016) and will come into effect this year (2018)</p> <p><b>21.16</b> Link to assessment</p>			

**Table 22.** Review rubric for “Beneficial Microbe Report” assessment. Reviewed on May 4, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>22.11</b> Students are informed on the course and/or lesson objectives to be measured in this assessment			X
<b>22.12</b> The assessment is consistent with learning outcome(s) supplied, allowing instructor to know if students have learned the intended lesson			X
<b>22.13</b> The assessment instructions are clear enough for students to know what they are being asked to do and how they will be graded (includes total points to be earned and question rubric where appropriate)			X
<p><b>Comments:</b></p> <p><b>22.11</b> When you say “report on the process”, what does this mean? I suppose you are asking students to describe how a food product is made using a selected microorganism. However this is not clear. A rubric is needed for this assessment.</p>			



MATERIALS SUBMITTED FOR **WEEK 5**

**Table 23.** Review rubric for **PowerPoint presentation on “FSMA”**. Reviewed on May 4, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>23.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>23.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>23.13</b> PowerPoint contains accurate and high-quality content		X	
<b>23.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X
<b>23.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>23.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>23.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<p><b>Comments:</b></p> <p><b>23.11</b> Link to course objectives</p> <p><b>23.12</b> Add lesson objectives</p> <p><b>23.13</b> Add an appropriate title for this PowerPoint</p> <p>Make it clear to students that there are some facilities that are exempted from FSMA rules and therefore not all must comply with its full requirements</p> <p>In addition to saying “the law says”, give the relevant reference in the code of federal regulations (CFR) that supports this.</p> <p><b>23.16</b> Link to assessment</p>			

**Table 24.** Review rubric for **PowerPoint presentation on “Fatty Foods”**. Reviewed on May 4, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>24.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>24.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X

<b>24.13</b> PowerPoint contains accurate and high-quality content			X
<b>24.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X
<b>24.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>24.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>24.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry		X	
<b>Comments:</b> <b>24.11</b> Link to course objectives  <b>24.12</b> Add lesson objectives  <b>24.13</b> This topic does not fit in with the required reading of the week. The debate does not address scientific evidence pointing to the dangers of consuming certain types of fats e.g. saturated and trans fats. The negative effects that these fats have in humans is not a myth or over-exaggeration but can be supported by credible research. Students need to be made aware.  <b>24.16</b> Link to assessment			

**Table 25.** Review rubric for “Quiz 1” assessment. Reviewed on May 4, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>25.11</b> Students are informed on the course and/or lesson objectives to be measured in this assessment			X
<b>25.12</b> The assessment is consistent with learning outcome(s) supplied, allowing instructor to know if students have learned the intended lesson			X
<b>25.13</b> The assessment instructions are clear enough for students to know what they are being asked to do and how they will be graded (includes total points to be earned and question rubric where appropriate)		X	
<b>Comments:</b> <b>25.11</b> Link to learning outcomes  <b>25.12</b> Link to learning outcomes.  <b>25.13</b> All the questions have the same number of points (1 point each). This should be revised so that points are allotted according to difficulty. For example long answer questions merit more weight than the multiple choice questions and questions requiring a single-word answer.  Question 2 is too obvious since insects, people and fish clearly do not use energy from the sun to store food. This question should be removed or restated.			

Use the word “collaborate” instead of “combine” in question 9

Question 22 is awkward and not very specific. What exactly do you mean by “have to do with”? Please restate.

MATERIALS SUBMITTED FOR WEEK 6

**Table 26.** Review rubric for **supplementary reading on “What makes us human?”**. Reviewed on May 7, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
<b>26.11</b> Students are informed on how this reading links to the overall course objectives			X
<b>26.12</b> Students are informed on the specific lesson objectives to be achieved as a result of reading this material			X
<b>26.13</b> Supplementary reading contains accurate and high-quality content	X		
<b>26.14</b> The content is appropriate for the level of the learner	X		
<b>26.15</b> Source of content is cited with an appropriate citation style or is a direct link			X
<b>26.16</b> At the end of the reading, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>26.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry		X	
<b>Comments:</b> <b>26.11</b> Link to course objectives  <b>26.12</b> Add lesson objectives  <b>26.15</b> Use appropriate citation style e.g. APA  <b>26.16</b> Link to assessment  <b>26.17</b> This is interesting but not critical information on the importance of heat processing. The topic could have been simply introduced and discussed in a PowerPoint presentation rather than provided as extra reading. The context of that discussion should be on the functional and nutritional benefits of cooking.			

**Table 27.** Review rubric for **supplementary reading on “Is flash pasteurization right for your craft beer?”**. Reviewed on May 7, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
<b>27.11</b> Students are informed on how this reading links to the overall course objectives			X

<b>27.12</b> Students are informed on the specific lesson objectives to be achieved as a result of reading this material			X
<b>27.13</b> Supplementary reading contains accurate and high-quality content		X	
<b>27.14</b> The content is appropriate for the level of the learner			X
<b>27.15</b> Source of content is cited with an appropriate citation style or is a direct link			X
<b>27.16</b> At the end of the reading, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>27.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry		X	
<b>Comments:</b> <b>27.11</b> Link to course objectives  <b>27.12</b> Add lesson objectives  <b>27.15</b> Use appropriate citation style e.g. APA  <b>27.16</b> Link to assessment  <b>27.17</b> According to your schedule, this would be the first time students are introduced to pasteurization outside of the textbook reading. I think students will learn more and appreciate this topic better if the subject is first presented and discussed in class. To increase learner engagement, why not use a video to illustrate beer flash pasteurization instead of supplementary reading?			

**Table 28.** Review rubric for **PowerPoint presentation on “Heat Preservation”**. Reviewed on May 7, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>28.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>28.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>28.13</b> PowerPoint contains accurate and high-quality content			X
<b>28.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X
<b>28.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>28.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>28.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b> <b>28.11</b> Link to course objectives			

**28.12** Add lesson objectives

**28.13** Missing from the discussion is, communicating to students the various factors that influence heat penetration (e.g. food composition, physical and thermal property of food, and packaging). This is important since these factors will affect whether or not the produce is safe to eat after processing. Missing also, is a discussion on how processing schedules (time-temperature) are determined. A discussion on the effect of heat processing type (blanching, pasteurization, and commercial sterilization) on both microbes and end-product quality would be helpful in the discussion as well.

**28.16** Link to assessment

**Table 29.** Review rubric for **laboratory exercise on “Drying-Shelf Life”**. Reviewed on May 7, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
<b>29.11</b> Students are informed on how this lab links to the overall course objectives			X
<b>29.12</b> Students are informed on specific lesson objectives to be achieved as a result of doing this lab	X		
<b>29.13</b> A background/introduction to the lab is given that clearly articulates the food science principles to be learned		X	
<b>29.14</b> The lab materials and methods are presented in a clear manner, enabling students to comprehend and follow procedures independently			X
<b>29.15</b> Appropriate assessment questions are given at the end of the lab to ensure that learning objectives are met		X	
<b>29.16</b> The lab can be completed within a reasonable time as set in the syllabus (2 hours)	X		
<b>29.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b>			
<b>29.11</b> Link to course objectives			
I would not recommend this as a suitable lab to support heat processing. This lab would be more suitable for a class on water activity. For a heat processing lab, have the students process foods using different heating methods and then measure selected effects due to heat processing conditions.			
<b>29.14</b> The “Using Pawkit Water Activity Meter” link associated with this lab was not accessible. Please update to make link active.			

MATERIALS SUBMITTED FOR **WEEK 7**

**Table 30.** Review rubric for **PowerPoint presentation on “Cold Preservation”**. Reviewed on May 7, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
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<b>30.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>30.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>30.13</b> PowerPoint contains accurate and high-quality content	X		
<b>30.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X
<b>30.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X
<b>30.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>30.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b> <b>30.11</b> Link to course objectives  <b>30.12</b> Add lesson objectives  <b>30.13</b> On slide 2, instead of saying, “there are formulas for this”, can you give the appropriate formula(s)? Additional information that would support this content include a discussion on how the refrigeration system works (general principles of operation) and the difference between refrigeration and cryogenic freezing. A discussion on different methods of freezing (still air, blast, plate etc), and the different effects of refrigeration and freezing on food safety and quality would also add value.  <b>30.16</b> Link to assessment			

**Table 31.** Review rubric for **PowerPoint presentation on “Dehydration Preservation”**. Reviewed on May 7, 2018

O = Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>31.11</b> Students are informed on how this presentation links to the overall course objectives			X
<b>31.12</b> Students are informed on specific lesson objectives to be achieved by the end of this presentation			X
<b>31.13</b> PowerPoint contains accurate and high-quality content	X		
<b>31.14</b> PowerPoint is designed to reduce cognitive overload, including limiting the use of text and using appropriate colors, fonts, images and graphical illustrations to support presentation			X
<b>31.15</b> PowerPoint presentation integrates other methods of delivery to engage students beyond lecture (this may include asking a relevant question to solicit feedback, pop quiz, team work or other class activity to increase engagement and learning)			X

<b>31.16</b> At the end of the PowerPoint, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>31.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<b>Comments:</b> <b>31.11</b> Link to course objectives  <b>31.12</b> Add lesson objectives  <b>31.13</b> Please update your definition of dehydration to indicate that it is the removal of water. Note also that dehydration does not generally result in an end product that has minimal changes in food property. For example, physical changes will be significant. Unless you are freeze drying, it is unlikely that after reconstitution, the product will look close to the original. A discussion comparing the different drying methods is recommended e.g. air, solar, tray, vacuum, freeze drying.  <b>31.16</b> Link to assessment			

**Table 32.** Review rubric for “Food Preservation Report” assessment. Reviewed on May 7, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>32.11</b> Students are informed on the course and/or lesson objectives to be measured in this assessment			X
<b>32.12</b> The assessment is consistent with learning outcome(s) supplied, allowing instructor to know if students have learned the intended lesson			X
<b>32.13</b> The assessment instructions are clear enough for students to know what they are being asked to do and how they will be graded (includes total points to be earned and question rubric where appropriate)			X
<b>Comments:</b> <b>32.11</b> Link to learning outcomes  <b>32.12</b> Link to learning outcomes.  <b>32.13</b> Please include a rubric for this assessment. Asking students to “write about” the given topic is vague. What exactly are you looking for? I am assuming you want them to discuss the process that is used to make the given product. If so, why would you then tell them not to mirror industry? Isn’t that the goal?			

MATERIALS SUBMITTED FOR WEEK 8

No content submitted.

MATERIALS SUBMITTED FOR WEEK 9

**Table 33.** Review rubric for **supplementary reading on “Nutrition”**. Articles included “The growing concern over added sugar”, Healthy people 2000”, “How gut bacteria make us fat and thin, and “Intestinal microbiota in human health and disease” Reviewed on May 7, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
<b>33.11</b> Students are informed on how this reading links to the overall course objectives			X
<b>33.12</b> Students are informed on the specific lesson objectives to be achieved as a result of reading this material			X
<b>33.13</b> Supplementary reading contains accurate and high-quality content	X		
<b>33.14</b> The content is appropriate for the level of the learner			X
<b>33.15</b> Source of content is cited with an appropriate citation style or is a direct link	X		
<b>33.16</b> At the end of the reading, students are directed to a specific assessment e.g. quiz or other activity, to help them review and reinforce the information they have just learned			X
<b>33.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<p><b>Comments:</b></p> <p><b>33.11</b> Link to course objectives</p> <p><b>33.12</b> Add lesson objectives</p> <p><b>33.14</b> The paper on Intestinal microbiota in human health and disease” would be more suitable for students in an advanced nutrition course. The reading is not appropriate for this level.</p> <p>This is a large volume of extra reading, along with the textbook reading for the week. I suggest minimizing these to increase engagement unless students are being assessed directly on the content. Find other forms of presenting supplementary content such as video, audio, simulations and online discussions</p> <p><b>33.16</b> Link to assessment</p>			



**Table 34.** Review rubric for **laboratory exercise on “The pitfalls of sampling as a means of control”**.  
Reviewed on May 7, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
<b>34.11</b> Students are informed on how this lab links to the overall course objectives			X
<b>34.12</b> Students are informed on specific lesson objectives to be achieved as a result of doing this lab	X		
<b>34.13</b> A background/introduction to the lab is given that clearly articulates the food science principles to be learned			X
<b>34.14</b> The lab materials and methods are presented in a clear manner, enabling students to comprehend and follow procedures independently			X
<b>34.15</b> Appropriate assessment questions are given at the end of the lab to ensure that learning objectives are met		X	
<b>34.16</b> The lab can be completed within a reasonable time as set in the syllabus (2 hours)	X		
<b>34.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry	X		
<p><b>Comments:</b></p> <p><b>34.11</b> Link to course objectives</p> <p><b>34.12</b> The second objectives is vague. What do you mean by the “drawbacks with pathogens?”</p> <p><b>34.13</b> It would be helpful to the students if you made it a bit more clear that rice distribution in the oats represents how pathogens will be distributed in the sample. Let the students understand that when you sample you get different amounts of rice. In the same way, you detect different amounts of pathogens when you do microbial sampling. Therefore to get an accurate picture of the microbial distribution you need to take enough samples and the sampling size must be large enough.</p> <p>It would have been helpful to determine in this exercise what sampling size and number of sampling is appropriate for each oatmeal treatment and how you statistically arrived at those numbers. The students could then be shown that this method could be applied in calculating sampling weight and repetitions when looking for pathogens.</p> <p><b>34.14</b> No instruction for the use of the sampling collection instrument (grain thief) was given.</p> <p><b>34.15</b> Avoid questions that require a “yes” or “no” answer unless you are following up with asking them to explain.</p>			

MATERIALS SUBMITTED FOR **WEEK 10**

**Table 35.** Review rubric for “**Nutrition Trend Report**” assessment. Reviewed on May 7, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

<b>Criteria</b>	<b>O</b>	<b>S</b>	<b>U</b>
<b>35.11</b> Students are informed on the course and/or lesson objectives to be measured in this assessment			X
<b>35.12</b> The assessment is consistent with learning outcome(s) supplied, allowing instructor to know if students have learned the intended lesson		X	
<b>35.13</b> The assessment instructions are clear enough for students to know what they are being asked to do and how they will be graded (includes total points to be earned and question rubric where appropriate)			X
<p><b>Comments:</b></p> <p><b>35.11</b> Link to learning outcomes</p> <p><b>35.12</b> Link to learning outcomes.</p> <p><b>35.13</b> Please include a rubric for this assessment. Asking students to write on a “current nutrition trend” is very broad. Can you break down exactly what you want the student to write about? For example, since the audience is upper management in a food company, students could include discussion on whether or not this is a true trend; if the trend is consistent with the goals and values of the company; and what is the potential effect on the bottom-line if the company enters this space.</p> <p>I note that this assessment is not consistent with the topic being addressed this week and therefore it is misplaced. I suggest giving this assessment during the week when you are addressing nutrition (Currently week 9)</p>			

MATERIALS SUBMITTED FOR **WEEK 11**

**No content submitted.**

MATERIALS SUBMITTED FOR **WEEK 12**

**No content submitted.**

MATERIALS SUBMITTED FOR **WEEK 13**

**No content submitted.**

MATERIALS SUBMITTED FOR **WEEK 14**

**No content submitted.**

MATERIALS SUBMITTED FOR WEEK 15

No content submitted.

MATERIALS WITHOUT SPECIFIC WEEK ASSOCIATION

**Table 36.** Review rubric for **laboratory exercise on “Determining serving size”**. Reviewed on May 7, 2018

Outstanding; S = Satisfactory, U = Unsatisfactory

Criteria	O	S	U
<b>36.11</b> Students are informed on how this lab links to the overall course objectives			X
<b>36.12</b> Students are informed on specific lesson objectives to be achieved as a result of doing this lab	X		
<b>36.13</b> A background/introduction to the lab is given that clearly articulates the food science principles to be learned			X
<b>36.14</b> The lab materials and methods are presented in a clear manner, enabling students to comprehend and follow procedures independently			X
<b>36.15</b> Appropriate assessment questions are given at the end of the lab to ensure that learning objectives are met			X
<b>36.16</b> The lab can be completed within a reasonable time as set in the syllabus (2 hours)	X		
<b>36.17</b> This lesson is relevant to specific knowledge and skills students will need to be successful when they enter the food industry		X	
<p><b>Comments:</b></p> <p><b>36.11</b> Link to course objectives</p> <p><b>36.13</b> Add lab theory</p> <p><b>36.14</b> This is certainly a difference between what we perceive as serving size and what is printed on labels. In approaching this lab, make sure that students are not provided with the label or original packages until they have decided on what they think the serving size is. This step was not indicated in the procedure.</p> <p><b>36.15</b> Note that the “Reference amounts customarily consumed per eating occasion” found in 21 CFR 101.12 is not considered as “standard serving sizes”, as if companies are required to follow these numbers. It’s instead used as the basis to develop serving size amounts on labels but the actual amounts may be less or more. So, instead of using the word “standard”, I would stick to the term used in regulation, i.e. “Reference amounts customarily consumed per eating occasion”</p> <p>In exercise 2, you talk about the size of food containing 100 calories. What do you mean by size? Are you talking about volume e.g. cups, or number of individual pieces of the food, or both? This is not clear. The second question in exercise 2 asks, “What about the size of the apple?”. Can you give some context? What exactly are you asking? The third question, “What is the standard size of the apple” is not very helpful since there so many varieties of apples of different sizes. Hence there is no “standard” size of an apple.</p>			