Course Documentation

School of Biosciences



Program:	Chemical Engineering Technician				
Academic Year:	2011-12	Fall []	Winter [x]	Spring []	
Program Year:	3	Program Semest	er: 6		
Course Name:	Food Chemistry				
Course Code:	CHEM 3000	Course Hours:	70	Credit Value:	5
Faculty:	Graeme Gissing	Email: Office Location:	ggissing@lo 2L26	yalistc.on.ca	

Class	Lab	Field	Other	Total
28	42			70

Prerequisites/Corequisites/Equivalent Courses

PR/CO/EQ	Course Code	Course Name	Conditions
PR	BIOS 3000	Biochemistry	
CO	N/A		
EQ	N/A		

This Course is A Prerequisite For:

Course Code	Course Name
N/A	

1. Calendar Description

This course gives the student a basic knowledge of the chemistry of foods and food analysis. An oral presentation by the student on a food ingredient topic is included. The labs emphasize food analysis methods used by the food industry. Prerequisite: BIOS 3000

2. Course Learning Outcomes: Upon successful completion of the course, the student will be

i.explain the many and various structural components of food stuffs;
ii.discuss how the physical and chemical nature of various foods changes over time;
iii.exhibit sound laboratory technical knowledge and skills concerned with food assays;
iv.distinguish qualitative and quantitative food sampling techniques;
v.explain the factors leading to food spoilage;
vi.describe the techniques for, and significance of, food preservation;
vii.explain the chemical mechanisms involved in alcohol and dairy food production.

3. Essential Employability Skills Outcomes: This course will contribute to the achievement of the following essential employability skills

- [x] 1. communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.
- [x] 2. respond to written, spoken, or visual messages in a manner that ensures effective communication.
- [x] 3. execute mathematical operations accurately.
- [x] 4. apply a systematic approach to solve problems.
- [x] 5. use a variety of thinking skills to anticipate and solve problems.
- [x] 6. locate, select, organize, and document information using appropriate technology and information systems.
- [x] 7. analyze, evaluate, and apply relevant information from a variety of sources.
- [] 8. show respect for the diverse opinions, values, belief systems, and contribution of others.
- [x] 9. interact with others in groups or team in ways that contribute to effective working relationships and the achievement of goals.
- $[x] \quad 10. \mbox{ manage the use of time and other resources to complete projects.}$
- $[x]\ \ 11.\ take responsibility for one's own actions, decisions, and consequences.$

4. General Education:

Indicate if this course is identified as a General Education course in the program of study.

[] Yes

[X] No

If yes, indicate which General Education theme this course addresses.

- [] 1. Arts in Society
- [] 2. Civic Life
- [] 3. Social and Cultural Understanding
- [] 4. Personal Understanding
- [] 5. Science and Technology

5. Prior Learning Assessment and Recognition:

Students may apply to receive credit by demonstrating achievement of the course learning outcomes through previous life and work experiences.

This course is eligible for challenge through the following method(s) indicated

Challenge Exam	Portfolio	Interview	Dual Credit	Other	Not Eligible
[x]	[X]	[]	[]	[]	[]

PLAR Sandy Novroski

6. Required Texts, Materials, Resources or Technical Materials Required

a)Rendell, 2010. Food Chemistry Lab Manual (made available to students) b)Ring-binder to collect class notes and handouts, and research materials c)Bound, soft/hard cover, line-ruled laboratory notebook

d)Lab coat and safety glasses

e)Access to email, printer, word processor, spreadsheet, and graphing programs

7. Evaluation: Students will demonstrate learning in the following ways

Assessment Description	Course Learning Outcome(s)	Assignment Weighting
Class, lab & field trip participation		5%
Lab Competency	iii,iv	5%
Tests (2)	i,ii, v-vii	30%
Lab reports (10)	i,iii	50%
Assignments (1)	iv,vi,vii	10%

8. Other:

Loyalist College has a Violence Prevention policy:

All College members have a responsibility to foster a climate of respect and safety, free from violent behavior and harassment.

- Violence (e.g. physical violence, threatening actions or harassment) is not, in any way, acceptable behavior.

- Weapons or replicas of weapons are not permitted on Loyalist College property.

- Unacceptable behavior will result in disciplinary action or appropriate sanctions.

- Moreinformationcanbefoundinthe"StudentManual"

passing grade is 60%

9. Curriculum, Delivery, Learning Plan and Learning Outcomes:

Course Components/Course Learning Outcomes	Related Elements of Performance	Learning Activities/Assessment/Resources
Lectures - CLOs (i,ii,v,vi,vii)	Tests, Discussions, Assignment(s)	Lectures and Discussions
Labs - CLOs (i-vii)		Labs (10): Cereal Ash Iron Ash Calcium Ash Moisture Determination Crude Fat Nachos Fat & Salt Quinine Edible Oils Wine Acidity Alcohol Determination