

**COLLEGE OF BASIC AND APPLIED SCIENCES  
UPPER DIVISION FORM 2020-2021 CATALOG**

Student name: \_\_\_\_\_ M #: \_\_\_\_\_  
 Major: **FERMENTATION SCIENCE** Minor: \_\_\_\_\_  
 Concentration: **N/A** E-mail: \_\_\_\_\_

**Instructions: For students graduating in Summer 2020 or later. One (1) copy signed by major and minor advisors should be filed in DSB room 120 with the Graduation Analyst three semesters prior to graduation. An Intent to Graduate Form must accompany this Upper Division Form.**

General Education	Course	Semester	Grade	Notes	Credit Hours
<b>COMMUNICATION</b> (9 hours)	ENGL 1010				3
	ENGL 1020			Preq: ENGL 1020 with C- or better	3
	COMM 2200				3
<b>HISTORY</b> (6 hours) Choose two: HIST 2010, HIST 2020, or HIST 2030					3
					3
<b>HUMANITIES/FINE ARTS</b> (9 hours) Choose one: ENGL 2020, 2030, or HUM 2610 Choose two different subjects: ANTH 2210; ART 1030 or 1920; DANC 1000; HIST 1010, 1020, 1110, or 1120; MUS 1030; PHIL 1030; THEA 1030					3
					3
					3
<b>MATHEMATICS</b> (3 hours) Choose one: MATH 1010, 1530, 1630, 1710, 1720, <b>1730</b> , 1810, 1910				<b>MATH 1730 RECOMMENDED</b>	3
<b>NATURAL SCIENCES</b> (8 hours) Choose two different subjects: ASTR 1030/1031, BIOL 1030/1031, <b>BIOL 1110/1111</b> , BIOL 2010/2011, BIOL 2020/2021, CHEM 1010/1011, CHEM 1030/1031, <b>CHEM 1110/1111</b> , GEOL 1030/1031, GEOL 1040/1041, PGEO 1030, PHYS 1110, PHYS 2010/2011, PHYS 2110/2111, PSCI 1030/1031, PSCI 1130/1131				*see major courses for required sequences/pre-requisites;	4
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<b>SOCIAL/BEHAVIORAL SCIENCES</b> (6 hours) Choose two different subjects: AAS 2100, ANTH 2010, ECON 2410, ECON 2420, GEOG 2000, GS 2010, HLTH 1530/1531, JOUR/EMC/RIM 1020, PS 1010, PS 1005, PSY 1410, RS 2030, SOC 1010, SOC 2010, WGST 2100					3
					3
<b>Hours Required</b>					<b>41</b>

Major Courses	Course	Semester	Grade	Notes	Credit Hours
Introduction to Fermentation Science	FERM 1000				3
Consumer Motivation & Sensory Evaluation of Fermented Foods	FERM 3700				3
Fermentation Science Internship	FERM 4910			SEE FACULTY ADVISOR	3
Fermentation Science Research	FERM 4920			SEE FACULTY ADVISOR	3
General Biology II	BIOL 1120/1121			Pre-requisite: BIOL 1110/1111	4
Microbiology	BIOL 2230/2231			Pre-requisite: BIOL 1110/1111, BIOL 1120/1121	4
Food and Industrial Microbiology (*see Advisor for POD)	BIOL 4510/4511			Pre-requisite: BIOL 2230/2231, *see Advisor for POD	4
General Chemistry II	CHEM 1120/1121			Pre-requisite: CHEM 1110/1111 with a C- or better	4
Elements of Organic Chemistry	CHEM 2030/2031			Pre-requisite: CHEM 1120/1121	4
Principles of Biochemistry	CHEM 3530/3531			Pre-requisite: CHEM 2030/2031	4
<b>Specialized Core; 21 credits required/approved by advisor</b>	<b>Course</b>	<b>Semester</b>	<b>Grade</b>	<b>Notes</b>	<b>Credit Hours</b>
Students will be advised into specialized tracks according to their areas of interest: Wine Industry, Brewing or Distillation, Fermented Dairy Foods, Fermented Meat or Baked Foods  Select 21 credits from AGRI 2010, AGBS 3160, AGBS 3810, AGBS 4820, AGBS 4830, AGBS 4850, BIOL 4570/4571, FERM 2500, FERM 2900, FERM 3710, FERM 3750, FERM 3850, FERM 3860, FERM 3900, FERM 4550, FERM 4560, FERM 4570, FERM 4580, FERM 4600, FERM 4800, THM 4140, PLSO 4500				SEE ADVISOR	
				SEE ADVISOR	
				SEE ADVISOR	
				SEE ADVISOR	
				SEE ADVISOR	
				SEE ADVISOR	
<b>MAJOR COURSES CONTINUED ON PAGE TWO</b>					

Major Courses, continued					
Specialized Core; continued	Course	Semester	Grade	Notes	Credit Hours
				SEE ADVISOR	
				SEE ADVISOR	
				SEE ADVISOR	
<b>Hours Required</b>					<b>57</b>

Supporting and Elective Courses					
	Course	Semester	Grade	Notes	Credit Hours
<b>Business Foundation: select 12 credits from ACTG 3000, BCED 3510, BLAW 3400, ENTR 2900, FIN 3000, MGMT 3610, MKT 3820, MGMT/ENTR 4920</b>				Pre-requisite: junior standing	3
				Pre-requisite: junior standing	3
				Pre-requisite: junior standing	3
				Pre-requisite: junior standing	3
CHEM 1110/1111				Credits can count in general education	0-4
BIOL 1110/1111				Credits can count in general education; Pre-requisite: MATH 1710 with C- or better of MATH ACT of 19 or higher	0-4
<b>Elective Courses – 10 additional credits needed to reach 120 required for graduation; 36 total credits must be earned at 3000/4000 level</b>					
<b>Hours required</b>					<b>22</b>

Optional Minor					
Minor Courses	Course	Semester	Grade	Notes	Credit Hours
<b>Hours Required</b>					

1. Degrees require a minimum of 120 semester hours completed with a cumulative and major GPA of 2.0 or higher. Minimum of 36 upper-division hours (3000/4000 level) and a minimum of 50 senior college hours (earned at four-year University) also required.
2. A minimum of 12 credits must be earned at the 3000/4000 level in each major

<b>Signed:</b>		
	<b>Major Advisor</b>	<b>Date</b>