

SCIENCE-MARKETING MINOR (BUSINESS MAJORS)

The Science-Marketing minors, joint minors between the Fermanian School of Business and the Biology and Chemistry Departments, are for business students who are interested in pursuing marketing careers in innovative science-related industries such as biotechnology, medical device, and pharmaceutical. Three emphases are available:

- Chemistry Emphasis
- Ecology Emphasis
- Molecular Emphasis

Emphases

- Chemistry (p. 1)
- Ecology (p. 1)
- Molecular (p. 1)

Science-Marketing Minor with Chemistry Emphasis

| Code | Title | Units |
|---|---|--------------|
| Lower-Division Requirements | | |
| ACC 2001 | Principles of Financial Accounting | 4 |
| CHE 1052 and CHE 1052L | General Chemistry I (FE) and General Chemistry I Lab (FE) | 5 |
| CHE 1053 and CHE 1053L | General Chemistry II and General Chemistry II Lab | 4 |
| CHE 2013 | Analytical Chemistry | 3 |
| CHE 2094 and CHE 2094L | Organic Chemistry I and Organic Chemistry I Lab | 4 |
| Choose one (1) course from the following: | | 4 |
| BIO 1001 and BIO 1001L | Human Biology and Bioethics (FE) and Human Biology and Bioethics Laboratory (FE) | |
| BIO 1003 and BIO 1003L | Introduction to Biology (FE) and Introduction to Biology Laboratory (FE) | |
| BIO 2010 and BIO 2010L | Cell Biology and Biochemistry (FE) and Cell Biology and Biochemistry Laboratory (FE) | |
| Choose one (1) course from the following: | | 3-4 |
| MTH 1044 | Calculus with Applications (FE) | |
| MTH 1064 | Calculus I (FE) | |
| MTH 1073 | Business Calculus (FE) | |
| Upper-Division Requirements | | |
| MKT 3032 | Principles of Marketing | 3 |
| Choose three (3) additional courses from MKT 3000-4059 for nine (9) units | | 9 |
| Total Units | | 39-40 |

Science-Marketing Minor with Ecology Emphasis

| Code | Title | Units |
|------------------------------------|--|-------|
| Lower-Division Requirements | | |
| ACC 2001 | Principles of Financial Accounting | 4 |
| BIO 2011 and BIO 2011L | Ecological and Evolutionary Systems (FE) and Ecological and Evolutionary Systems Laboratory (FE) ¹ | 4 |

| | | |
|---|--|-----|
| BIO 2012 and BIO 2012L | Organismal Biology and Organismal Biology Laboratory | 4 |
| Choose one (1) course from the following: | | 4-5 |
| CHE 1001 | Chemistry and Society (FE) | |
| CHE 1003 and CHE 1003L | Introduction to General, Organic, and Biological Chemistry (FE) and Introduction to General, Organic, and Biological Chemistry Lab (FE) | |
| CHE 1052 and CHE 1052L | General Chemistry I (FE) and General Chemistry I Lab (FE) | |
| Choose one (1) course from the following: | | 3-4 |
| MTH 1044 | Calculus with Applications (FE) | |
| MTH 1064 | Calculus I (FE) | |
| MTH 1073 | Business Calculus (FE) | |

Upper-Division Requirements

| | | |
|--|---|-----|
| BIO 3063 and BIO 3063L | Conservation Ecology and Conservation Ecology Laboratory | 4 |
| MKT 3032 | Principles of Marketing | 3 |
| Choose two (2) additional courses from MKT 3000-4059 for six (6) units | | 6 |
| Choose 3-4 units of the following courses: ² | | 3-4 |
| BIO 3012 | Applied Plant Biology | |
| BIO 3015 | Microbiology | |
| BIO 3015L | Microbiology Laboratory | |
| BIO 3023 | Introduction to Oceanography | |
| BIO 3023L | Introduction to Oceanography Laboratory | |
| BIO 3033 | Marine Biology | |
| BIO 3033L | Marine Biology Laboratory | |
| BIO 3040 | Field Biology: Neotropical Ecology | |
| BIO 4010 | Vertebrate Biology | |
| BIO 4010L | Vertebrate Biology Laboratory | |
| BIO 4030 | Animal Behavior | |
| BIO 4030L | Animal Behavior Laboratory | |
| EVS 3096 | Advanced Biology ³ | |
| EVS 3097 | Advanced Ecology ³ | |
| EVS 3098 | Advanced Ecological Applications ³ | |

Total Units **35-38**

¹ BIO 1005 and BIO 1005L may be substituted with the permission of the Biology Department

² Courses and their corresponding lab (if applicable) must be taken concurrently.

³ Can be taken at Au Sable or Costa Rica with our sister school (prior permission is required for any substitutions) and used to transfer in these units.

Science-Marketing Minor with Molecular Emphasis

| Code | Title | Units |
|------------------------------------|---|-------|
| Lower-Division Requirements | | |
| ACC 2001 | Principles of Financial Accounting | 4 |
| BIO 2010 and BIO 2010L | Cell Biology and Biochemistry (FE) and Cell Biology and Biochemistry Laboratory (FE) | 4 |

| | | |
|---------------------------|--|---|
| BIO 2011 and BIO 2011L | Ecological and Evolutionary Systems (FE) and Ecological and Evolutionary Systems Laboratory (FE) | 4 |
|---------------------------|--|---|

Choose one (1) course from the following: 4-5

| | | |
|------------------------------|--|--|
| CHE 1001 | Chemistry and Society (FE) | |
| CHE 1003 and CHE 1003L | Introduction to General, Organic, and Biological Chemistry (FE) and Introduction to General, Organic, and Biological Chemistry Lab (FE) | |
| CHE 1052 and CHE 1052L | General Chemistry I (FE) and General Chemistry I Lab (FE) | |

Choose one (1) course from the following: 3-4

| | | |
|----------|---------------------------------|--|
| MTH 1044 | Calculus with Applications (FE) | |
| MTH 1064 | Calculus I (FE) | |
| MTH 1073 | Business Calculus (FE) | |

Upper-Division Requirements

| | | |
|---------------------------|-------------------------------------|---|
| BIO 3045 and BIO 3045L | Genetics and Genetics Laboratory | 4 |
| BIO 3052 | Research Methodology | 3 |
| MKT 3032 | Principles of Marketing | 3 |

Choose two (2) additional courses from MKT 3000-4059 for six (6) units 6

Choose one (1) course from the following: ¹ 4

| | | |
|-----------|----------------------------------|--|
| BIO 3015 | Microbiology | |
| BIO 3015L | Microbiology Laboratory | |
| BIO 3050 | Advanced Cell Biology | |
| BIO 3050L | Advanced Cell Biology Laboratory | |
| BIO 3080 | Molecular Biology | |
| BIO 3080L | Molecular Biology Laboratory | |
| BIO 3090 | Immunology | |
| BIO 3090L | Immunology Laboratory | |
| BIO 4000 | Developmental Biology | |
| BIO 4000L | Developmental Biology Laboratory | |
| BIO 4010 | Vertebrate Biology | |
| BIO 4010L | Vertebrate Biology Laboratory | |
| BIO 4050 | Advanced Biochemistry | |
| BIO 4050L | Advanced Biochemistry Laboratory | |

Total Units 39-41

¹ Courses and their corresponding lab (if applicable) must be taken concurrently.