CELL AND MOLECULAR BIOLOGY (2017-2018)

DEPARTMENT OF CELL BIOLOGY, MICROBIOLOGY, AND MOLECULAR BIOLOGY

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- Must receive a C- or better or meet major requirements
- Must maintain a 2.0 GPA in all Major’s coursework: this is the Applied Attempts GPA in the Major block of DegreeWorks
- Must have fewer than 3 D and/or F grades in Biology major and supporting science requirements lectures
- Must complete a minimum of 20 credit hours of Cell and Molecular Biology major requirements at USF Tampa

MAJOR REQUIREMENTS (25 CREDIT HOURS)

- BSC 2010/L: Cellular Processes with lab
  No prerequisites; must take lecture and lab together
- BSC 2011/L: Biodiversity with lab
  No prerequisites; must take lecture and lab together
- PCB 3063/L: Genetics and lab
  Prerequisites: BSC 2010/L and CHM 2046
- PCB 3023/L: Cell Biology and lab
  Prerequisites: BSC 2010/L and CHM 2046
- MCB 3410: Cell Metabolism
  Prerequisites: BSC 2010/L and CHM 2046
- PCB 4024: Molecular Biology of the Cell
  Prerequisites: PCB 3063, PCB 3023 and MCB 3410
- Choose one of the Following
  - PCB 4026: Molecular Biology of the Gene
    Prerequisites: PCB 3063, PCB 3023 and MCB 3410
  - PCB 4109: Cancer Biology
    Prerequisites: PCB 3063, PCB 3023 and MCB 3410

MAJOR ELECTIVES OPTIONS (15 CREDIT HOURS)

- BCH 3053: Biochemistry
- BSC 4434: Bioinformatics
- BSC 4905: Independent Study (max 1 credit)
- BSC 4910: Undergraduate Research (max 4 credits)
- BSC 4933: Readings in Cell and Molecular Biology
- BSC 4935: Seminar in Cell and Molecular Biology
- MCB 3020/L: Microbiology with lab
- MCB 4503: Virology
- MCB 4933: Cellular Microbiology
- PCB 4671: Molecular Evolution
- PCB 3043/L: Ecology and lab
- PCB 3712/13L: General Physiology and lab
- PCB 4023: Principles of Immunology
- PCB 4522C: Experimental Genetics and Cell Bio
- PCB 4663: Human Genetics
- PCB 4744: Biomedical Physiology
- ZOO 4753: Human Histology & Histopathology
- ZOO 4694: Developmental Biology

THIS IS NOT A COMPLETE LIST: Please refer to the permit page for additional elective options and prerequisites

Most advanced biology courses are not offered every semester; there are no set offerings for summer

SUPPORTING SCIENCE (32-34 CREDIT HOURS)

- CHM 2045/L: General Chemistry I and lab
  Prerequisites: C or better in MAC 1105 or test equivalent
- CHM 2046/L: General Chemistry II and lab
  Prerequisites: C or better in CHM 2045/L
- CHM 2210/L: Organic Chemistry I and lab
  Prerequisites: C or better in CHM 2046/L
- CHM 2211/L: Organic Chemistry II and lab
  Prerequisites: C or better in CHM 2210/L
- One Physics Sequence:
  - PHY 2053/L AND PHY 2054/L (non-calculus based, recommended for life science/pre-health majors)
  - PHY 2048/L AND PHY 2049/L (calculus based, must take MAC 2311 and 2312 math sequence)
- Calculus I: MAC 2241 OR MAC 2311 OR MAC 2281
  Prerequisites: C or better in MAC 1147 or test equivalent
- Calculus II OR Statistics: MAC 2242 OR MAC 2312 OR STA 2023
ADDITIONAL DEGREE REQUIREMENTS

- ENC 1101
- ENC 1102
- Core Social Science: AMH 2020, ANT 2000, ECO 2013, POS 2041, PSY 2012 OR SYG 2000
- FKL- Social and Behavioral Science
- FKL- Human and Cultural Diversity
- FKL- Fine Arts
- FKL- Humanities
- Two of the above course must also fulfill Human Historical Context and Processes (ENC 1101 AND _____)
- FKL- Capstone (Junior/Senior upper level requirements)
- FKL- Writing Intensive (Junior/Senior upper level requirements)

OTHER UNIVERSITY REQUIREMENTS

- 120 Hours – A Bachelor’s Degree requires a minimum of 120 credit hours
- Upper-level requirement – All students are required to take at least 42 credits at the 3000+ level. Between your Cell and Molecular Biology major courses and the exit courses you will complete 38 upper level credits. Based on the number of credits you have already taken, you have _____ upper level credits remaining, outside the major and exit courses.
- Summer Rule – All students who enter USF with fewer than 60 credits are required to take at least 9 credits of coursework in the summer at a State University System (SUS) 4-year University. You have _____ summer credits remaining to complete.
- GPA Requirement – Students must earn an overall 2.0 GPA and USF 2.0 GPA
- USF Residency – Student must complete 30 of the last 60 credits in USF Tampa coursework
- FLENT (Foreign Language Entrance Requirement)
- Gordon Rule Communication – ENC 1101, ENC 1102, Writing Intensive and one ‘double-dip’ course

The final responsibility for meeting all graduation requirements stated in the catalog rests with the student. See the USF catalog for a complete list of graduation requirements. www.ugs.usf.edu/catalog.htm

GET INVOLVED!

- Undergraduate Research- Work one-on-one with faculty beginning your junior year with the possibility of being published!
- Lab experience through a wide array of coursework
- USF Cell, Molecular and Microbiology Club
- Pre-Health Profession Clubs
- USF Health Byrd Alzheimer’s Institute allows students to volunteer in the research labs
- Moffitt Cancer Center offers internships in various research areas
- Centers for Disease Control and Prevention (CDC) offers paid summer internships in Atlanta

Please refer to the BioAdvise involvement website for links to the above opportunities: http://biology.usf.edu/bioadvise/involvement/clubs.aspx

“BioAdvise at USF” on Facebook for new opportunities within the Biology Field!