

**College of Science**  
**Minor in SYSTEMS BIOLOGY**  
For students entering under UG catalog 2023-2024

<b>Required courses (14 credits)</b>
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SYSB 2024 Fundamentals Systems Biology <i>(Pre: MATH 1226, (BIOL 1105 or ISC 1106H), (CHEM 1036 or CHEM 1056 or CHEM 1056H or ISC 1106H))</i>	3__
SYSB 2034 Math Methods Systems Biology <i>(Pre: SYSB 2024, MATH 1226, (MATH 1114 or MATH 2114 or MATH 2114H or ISC 2105), (CS 1064 or CS 1114))</i>	3__
SYSB 3035 Genomics and Bioinformatics <i>(Pre: BIOL 2004)</i>	4__
SYSB 3115 Network Dynam & Cell Physiol <i>(Pre: SYSB 2034)</i>	4__

<b>Choose at least four credits from the following list of electives (4 credits)</b>
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SYSB 3036 Genomics and Bioinformatics <i>(Pre: SYSB 3035)</i>	4__
SYSB 3116 Network Dynam & Cell Physiol <i>(Pre: SYSB 3115)</i>	4__
SYSB 4114 Appl Models Gen Reg Networks <i>(Pre: SYSB 3116)</i>	3__
SYSB 4224 Big Data in Systems Biology <i>(Pre: (SYSB 2034 or MATH 1226), (STAT 3005 or STAT 3615))</i>	3__

Total required hours	18
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Acceptable Substitutions

SYSB 2034 can be substituted with MATH 2214 Intro to Differential Equations  
 SYSB 3036 can be substituted with CS 3824 Introduction to Computational Biology and Bioinformatics, or CMDA/STAT/CS 3654 Introductory Data Analytics & Visualization, or STAT 4364 Introduction to Statistical Genomics  
 SYSB 3116 Network Dynamics & Cell Physiology can be substituted with CS 4214 Simulation and Modeling, or CMDA 4604 Intermediate Topics in Mathematical Modeling, or CMDA/STAT 4664 Computational Intensive Stochastic Modeling

Minimum GPA

A minimum minor GPA of 2.0 in all courses taken to fulfill the minor is required.

Prerequisites

Some courses listed on these checksheets have prerequisites, please consult the University Course Catalog or check with your advisor.