Cover page for Module 1: Introduction to the Genome Browser: What is a gene?

# Submission Details

|  |  |
| --- | --- |
| Submitter: | Anne Rosenwald (rosenwaa@georgetown.edu) |
| Submission timestamp: | 2019/07/31 4:07:32 PM EST |
| Authors: | Joyce Stamm, University of EvansvilleJennifer Kennell, Vassar CollegeWilson Leung, Washington University in St. LouisLeocadia Paliulis, Bucknell UniversitySrebrenka Robic, Agnes Scott College |
| Corresponding author: | Anne Rosenwald (rosenwaa@georgetown.edu) |

# Lesson Overview

|  |  |
| --- | --- |
| Lesson abstract: | This lesson introduces the University of California Santa Cruz genome browser to students, walking them through some of the key features so that it can be used for analysis of gene structure. |
| Lesson keywords: | Genome BrowserExonsIntronsEvidence TrackStart CodonStop Codon |
| Organism(s) that are the focus of this lesson: | Drosophila |
| Type(s) of student learning assessments: | Quiz questions |
| Websites and online databases used: | GEP UCSC Genome Browser (<http://gander.wustl.edu>) |
| Resources in addition to the lesson instructions: | Questions to work through |

# Learning Topics

|  |  |
| --- | --- |
| Topics in scientific fields: | BioinformaticsGenetics |
| Topics in mathematics or statistics: | None |
| Topics in bioinformatics or data science: | Similarity searches (BLAST, Multiple Sequence Alignment) |

# Student Prerequisites

|  |  |
| --- | --- |
| Recommended prior course work: | High school level biologyIntroductory college biologyGenetics |
| Recommended computer skills: | Basic: Familiarity with web browsers, word processing |

# Instructor Prerequisites

|  |  |
| --- | --- |
| Recommended computer skills: | Basic: Familiarity with web browsers, word processing |
| Instructional requirements: | Basic Computer Lab (Access to laptops/desktops, no large memory or CPU requirements) |

# Implementation Recommendations

|  |  |
| --- | --- |
| Instructional time required: | 1 class period or less |
| Students work as individuals or teams? | Either individual or team work is possible |
| Number of students in a class: | More than 50 students (assume no TAs and one computer for each student) |

# Accessibility

|  |  |
| --- | --- |
| Available languages: | English |
| Additional materials for students with disabilities: | None |