# Genotyping-by-sequencing workshop May 12-28, 2015 Tuesday-Thursday 10am-12pm, ALS 3005

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| Instructor | Kelly Vining | Phone | 541-737-0018 |
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| Office Hours | Tues-Thurs 2-3 pm |  |  |

### Description:

Genotyping-by-sequencing (GBS) is a powerful technology that is being applied to a broad range of research projects in molecular genetics. This three-week workshop intends to explore all aspects of GBS, from applications to experimental design considerations, data formats, and data processing. We’ll use several popular software packages to manipulate, analyze and visualize GBS data. In class discussions, GBS veterans will have an opportunity to share their experiences with GBS newbies. We’ll also talk about GBS services provided by the OSU Center for Genome Research and Biocomputing.

### Goals:

Understand how GBS works

Gain experience with bioinformatic processing of GBS data

Learn what tools and services are available at the CGRB

### Requirements:

CGRB account   
Basic command line familiarity   
R experience helpful, but not required

### Course Schedule:

| Date | Topic |  |
| --- | --- | --- |
| 5/12/15 | Introduction to GBS: overview of applications and lab methods |  |
| 5/14/15 | Data processing with TASSEL pipeline |  |
| 5/19/15 | Working with the TASSEL GUI |  |
| 5/21/15 | Data processing with Stacks pipeline |  |
| 5/26/15 | Genome-wide association analyses (GWAS) Yuan Jiang, OSU Department of Statistics |  |
| 5/28/15 | More GBS data processing pipelines |  |

Statement Regarding Students With Disabilities:  
Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 737-4098. DAS website: <http://ds.oregonstate.edu>   
  
Academic Honesty   
The students are expected to be honest and ethical in their academic work. Any incident of academic dishonesty will be handled according to the University's Academic Regulations <http://catalog.oregonstate.edu/ChapterDetail.aspx?key=75#Section2883>   
  
**Link to Statement of Expectations for Student Conduct:** <http://studentlife.oregonstate.edu/studentconduct/>