



## *Silviculture Topics*

# FORS 594

## Seedling Propagation, Artificial Regeneration & Drought Resilience

### About the Course

This 1-credit course focuses on applied aspects of artificial forest regeneration – seedling propagation, nursery operations, reforestation strategies – with special emphasis on conifer seedling drought resilience and potential cultural techniques for boosting outplanting survival of seedlings in water-limited environments.

Students will: 1) Complete weekly reading assignments; 2) Participate in group discussion of readings; and 3) Lead discussion on one or more topics (supplemented by additional research). Some discussions will be joined by regeneration and silviculture experts from beyond UM.

Additionally, students will help establish a small nursery crop of containerized seedlings (western larch, ponderosa pine, western white pine), gaining experience with nursery propagation basics of seed stratification, media preparation, seed sowing, fertilization & irrigation, and pest monitoring/control.

### Day/Time

TBD; Time slots for weekly group discussions (likely remote via zoom) and greenhouse meetings (in-person) will be determined with student input at the semester's beginning. Instructors will email registered students to arrange initial meeting via zoom and to determine the readings/meetings schedule. Seedling propagation work will take place at Memorial Greenhouse (adjacent to Forestry Building).

### Instructors

- Christopher Keyes ([christopher.keyes@umontana.edu](mailto:christopher.keyes@umontana.edu))
- John Goodburn ([john.goodburn@umontana.edu](mailto:john.goodburn@umontana.edu))
- Justin Crotteau ([justin.crotteau@usda.gov](mailto:justin.crotteau@usda.gov))

### Prerequisites

FORS 347 or FORS 349; OR graduate standing; OR instructor consent. Suitable for graduate students and advanced undergraduate students.

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