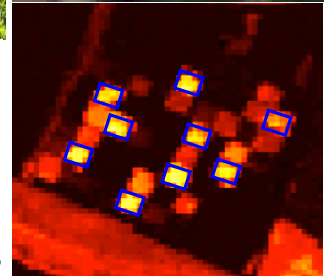
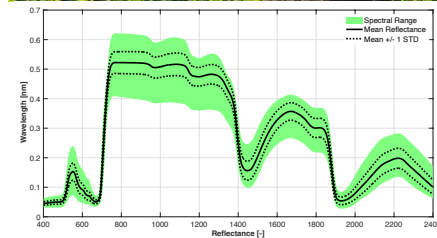


Advances in High Throughput Phenotyping

High-Throughput Phenotyping (HTP) is an emerging field that integrates remote sensing and simulation and modeling technologies to advance selection in plant breeding programs. Advances in High Throughput Phenotyping provides an overview of the sensing and modeling tools that are being integrated into modern HTP platforms. This course surveys the literature in this highly dynamic area of research to explore state-of-the-art applications of visible through shortwave infrared (VSWIR), thermal infrared (TIR), Light Ranging and Detection (LiDAR), and other sensing tools applied at various scales to monitor plant breeding populations. Examples of various deployment modes will be explored to understand the trade-offs in time and space and associated resource requirements for each type of experimental design. The use of simulation and modeling to interpret field datasets and provide an understanding of idealized plant traits will be examined. The ability to breed agricultural plants for current and future consumption needs across the globe will require the effective integration of sensing and simulation tools into breeding programs, and this course provides a survey of current methods and results associated with modern HTP approaches.



Course Details

*Offered Autumn 2022
3 Credit Hours*



Prerequisites

*ENGR 1221 or CSE 1222 or
ENGR 1181.xx or ENGR 1281.xx
or ENGR 1187 or HCS 2260 or
AnimSci 2260 or ENR 2000
or AEDE 2005 or COMLDR
3537 or STAT 1450; and
Junior or Senior or Graduate
standing; or permission of
instructor.*



Class Times

*M/W 4:10 - 5:30 p.m.
In Person
Ag Engineering 219
FABE 100*



More Info...

*Contact Dr. Darren Drewry for
more information:
drewry.19@osu.edu*