# 3D Printing Assignments at Small Institutions

♣ GARDNER TRENEMAN

GERM 328: The Artificial Body in German Film/Literature (Dr. Lauren Nossett)

Assignment: Create a 'homunculus' based on what you read/see in the course texts/films.

#### My part for class:

- Use Tinkercad as software
- Provide pre-made human body parts
- Make reference to Thingiverse for models
- 25 students, one class period
- Files due to me in stages
- Prints come in batches
- Printed them as many as I had on one plate, in batches









FREN 381: Fairy Tale Beginnings (Dr. Valentine Balguerie)

Assignment: Summarize the themes you see in classic French fairy tales as icons/symbols and place them into your own book.

#### My part for class:

- Tinkercad
- Provide solid/static parts
- Thingiverse and Sketchfab for models
- Teaching time to number of students + 1on-1
- Print parts ahead of time
- All stis due to me at once
- Took time to schedule prints





COLLEGE





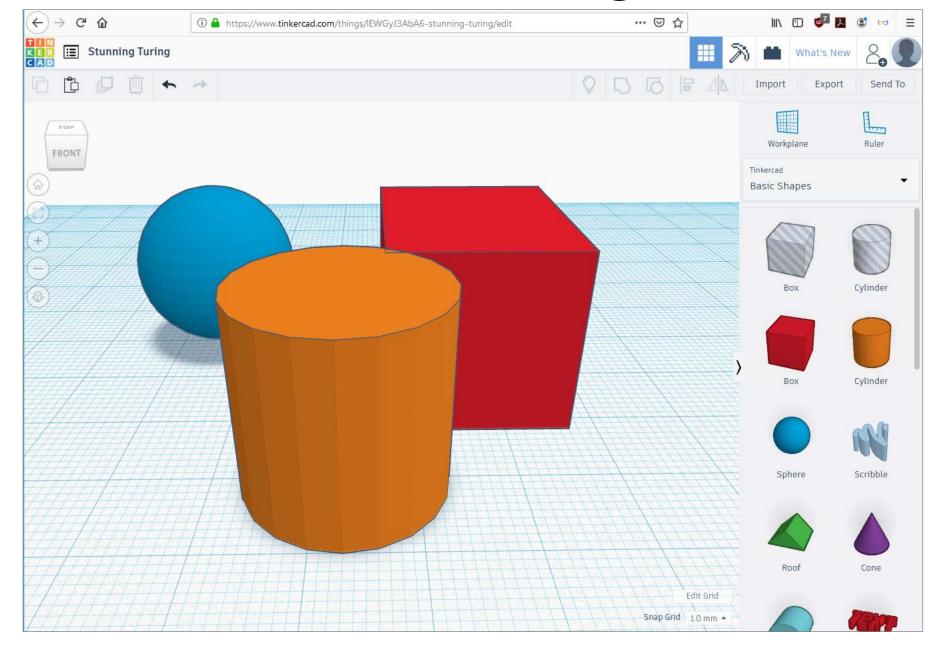
# Preparations are crucial:

- Simplest software available
- Require one-on-one consultations for help
- Spend time to manage your print queue
- Train student help, if possible
- Focus on perfection later

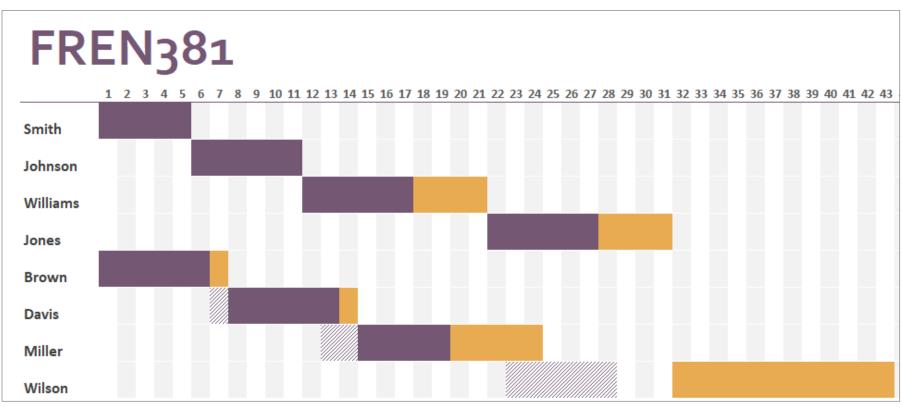
Reach out to nontraditional departments!



### Tinkercad for design



## Gantt charts for scheduling multiple printers



### Ultimaker3







- PLA filament for the bulk of all printing (takes paint well), TPU filament for book spines
- Homunculi took 4 12hr
- Book plates took 4 7hr (+2 for spines)

Scan for original artist's 3D book