



**Collin County Community College District
APPLICATION FOR SABBATICAL LEAVE**

Instructions

Please complete this application by responding to all items. Attach requested documentation (in the order requested) and secure the appropriate signatures prior to submitting the application to the chair of the Sabbatical Leave Committee. **Please submit the original and 10 copies.**

Name Luke Sides CWID 110618566
 Title Professor of Art Division Academic Affairs

Have you ever been granted a sabbatical? If yes: Dates of Prior Sabbatical(s): _____
 Please provide a brief description of your previous sabbatical project:

Sabbatical Leave Period Being Requested

Dates: Beginning Date August 2022 Ending Date December 2022

Length: One semester Two semesters Other _____

Applicant's Agreement

ABSTRACT

Please give a summary description of the project and its significance in improving teaching and learning at Collin College. Please use language that can be readily understood by persons in areas of expertise other than your own. **PLEASE DO NOT EXCEED SPACE PROVIDED BELOW.**

Digital Fabrication has become an integral part of sculptural practices. 3D printers, CNC machinery and laser cutters are the tools used in digital fabrication and while they are complicated to learn to run the real issue is creating sculptures in a digital format. I have incorporated digital fabrication in all my 3D Design and Sculpture classes at a rudimentary level. Students can manipulate simple objects and models found online but are unable to create a sculpture digitally. Much of the software used is more editing software and not sculpting software.

The Plan for the project is to learn about how to use the sculpting software so I can then teach our students how to create a sculpture from a virtual ball of clay. This would be a threefold process. First, I would like to learn how to use ZBrush. Zbrush is one of the predominant software used in the creation of digital sculptures and is the software I would like to learn for this project. Learning how to use this software will enable me to navigate many of the other sculpting software's. I would also like to familiarize myself with another software Blender that is free and will ultimately be the software students will utilize. The other software I would like to familiarize myself with is Fusion 360. Currently we are using unsupported Autodesk Software Meshmixer, and Slicer for Fusion 360 and I fear these could be discontinued. Fusion 360 has all the capabilities of Meshmixer and Fusion 360 and so much more and is the industry standard for digital Fabrication. The second phase of this project is to learn how to operate three to five axis CNC routers. This would round out our digital fabrication needs at Collin. This would allow students to digitally create larger scale sculptures and would allow them to use traditional materials as the finished product. The last phase of the project would be for me to put all these skills into action. I have been invited to participate in an artist in residency at Fort Hays State University in Hays, Kansas. I will be collaborating with Tobias Flores in the creation of sculptures using the above techniques. I will also attend a residency at the Carrie Furnaces in Pittsburgh Pennsylvania.

Collin College
Sabbatical Leave Proposal
Professor Luke Sides Professor of Art

Objectives and Rationale:

Digital Fabrication has become an integral part of sculptural practices. 3D printers, CNC machinery and laser cutters are the tools used in digital fabrication and while they are complicated to learn to run, the real issue is creating sculptures in a digital format. I have incorporated digital fabrication in all my 3D Design and Sculpture classes at a rudimentary level. Students can manipulate simple objects and models found online but are unable to create a sculpture digitally. Much of the software used is more editing software and not sculpting software.

The Plan for the project is to learn about how to use the sculpting software so I can then teach our students how to create a sculpture from a virtual ball of clay. This would be a threefold process. First, I would like to learn how to use ZBrush. Zbrush is one of the predominant software used in the creation of digital sculptures and is the software I would like to learn for this project. Learning how to use this software will enable me to navigate many of the other sculpting software. I would also like to familiarize myself with another software called Blender that is free and will ultimately be the software students will utilize. Next, I would like to familiarize myself with the software called Fusion 360. Currently, we are using unsupported Autodesk Software Meshmixer, and Slicer for Fusion 360 and I fear these could be discontinued. Fusion 360 has all the capabilities of Meshmixer and Fusion 360 and so much more and is the industry standard for digital fabrication. The second phase of this project is to learn how to operate three to five axis CNC routers. This would round out our digital fabrication needs at Collin. The benefit to our students is that it would allow them to digitally create larger scale sculptures and allow them to use traditional materials as the finished product. The last phase of the project would be for me to put all these skills into action. I have been invited to participate in an artist-in-residency at Fort Hays State University in Hays, Kansas. I will be collaborating with Tobias Flores in the creation of sculptures using the above techniques. I will also attend a residency at the Carrie Furnaces in Pittsburgh Pennsylvania.

Timetable

August -September: begin classes on Zbrush 3D modeling Software

October: Begin classes on Fusion 360 3D CAD software

Attend Fort Hays State University Artist in Residency

November: Continue Classes on Zbrush and Fusion 360

Attend Carrie Furnaces Artist-in-Residency

December: Complete projects created at residencies.

Bibliography:

Zbrush (Computer Software). (2021). Retrieved from <https://pixologic.com/get-zbrush/>

Fusion 360 (Computer Software). (2021). Retrieved from <https://www.autodesk.com/products/fusion-360/overview>

Blender (Computer Software). (2021). Retrieved from <https://www.blender.org/download/>

Meshmixer (Computer Software). (2018). Retrieved from <https://www.meshmixer.com/download.html>

Slicer for Fusion 360 (Computer Software). (2020). Retrieved from <https://knowledge.autodesk.com/support/fusion-360/downloads/caas/downloads/content/slicer-for-fusion-360.html>

Resources:

Tobias Flores- Fort Hays State University, Hays, KS.

Andrew Scott-University of Texas Dallas, Richardson, TX.

Ed Parrish-Carrie Furnaces, Homestead, PA.

Kurt Dyrhaug-Lamar University, Beaumont, TX.

Marshall Pittman- Collin College, Plano, TX.