

LINDSEY MARIE FESTER

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EDUCATION

The Ohio State University College of Engineering, Columbus, Ohio

Food, Agricultural, and Biological Engineering with a specialization in **Biological Engineering**

COURSEWORK HIGHLIGHTS

Nanotechnology	HVAC, Environmental Controls & Air Quality	Energy in Biological Systems
Thermodynamics	Computer Programming in C++	Human Anatomy & Physiology
Fluid Mechanics	Bioprocess Engineering Principles	Organic Chemistry with Laboratory
Heat & Mass Transfer	Computer Graphics Using AutoCAD	System Dynamics & Electricity

ACADEMIC ENGINEERING PROJECTS

CAPSTONE DESIGN PROJECT—ECOLOGICAL COOKSTOVE, August 2014-May 2015

- Designed ecological, economical, wood burning cookstove to reduce deforestation and improve rural Nicaraguan standard of living via the elimination of harmful smoke emissions responsible for respiratory health issues
- Developed precise cookstove model using Solidworks which facilitated construction of full-scale prototype
- Performed exhaustive testing of prototype and of customary open-fire cooking practice for comparison
- Achieved 39% increase in thermal efficiency, 41% reduction in wood consumption and cleaner, more complete combustion

FLUID FLOW SETUP PROJECT, January-April 2013

- Identified parts and dimensions of positive displacement pump fluid flow system setup
- Collaborated with team to analyze system theoretically and experimentally; implemented via experiments and calculations

LAB-ON-A-CHIP DESIGN PROJECT, March-June 2011

- Designed inexpensive, portable Lab-on-a-Chip device to detect fluorescence in a chemical solution
- Created Solidworks drawing used to manufacture actual prototype
- Succeeded in calibrating prototype to measure concentration of fluorescent compound to within 5%

QUALIFICATIONS & SKILLS

COMPUTER

MATLAB	Simulink	STELLA Modeling Software	Autodesk Inventor Professional	Solidworks
C++	ChemDraw	AutoCAD	Microsoft Word, Excel, PowerPoint	

CHEMICAL & BIOLOGICAL LABORATORY

Reflux, recrystallization, filtration, distillation, extraction | Thin layer, column, and gas chromatography | IR, ¹H and ²³C NMR, and UV/Visible spectroscopy | Titration | Mass spectrometry | Multi-step synthesis | Compound and stereo microscope operation

COMMUNICATION

Fluent in French and English

EMPLOYMENT & RESEARCH

Manager | Lucky's Stout House, Columbus, Ohio, July 2013-Present

- Negotiate business contracts, supervise employees, generate weekly schedule, and oversee social media
- Ensure customer satisfaction via expedient service and proficient use of 2Touch and Focus POS Systems

Manager | Waterfront on Buckeye Lake, Thornville, Ohio, May 2017-Present

Student Assistant, Heart Failure Research Team | OSU Davis Heart and Lung Research Institute, June 2011-May 2012

- Independently designed and controlled system for patient screening via Microsoft Excel
- Achieved proficiency in utilizing electronic medical record database
- Supervised clinical rooms: maintained organization, updated inventory

Voluntary Research Assistant, Transplant Surgery Department | OSU Wexner Medical Center, July 2012-May 2013

EXTRACURRICULAR ORGANIZATIONS & PHILANTHROPIC INVOLVEMENT

Health Sciences Scholars, The Ohio State University

Kappa Alpha Theta, The Alpha Gamma Chapter at The Ohio State University

American Society of Heating, Refrigerating, and Air-Conditioning Engineers

Student Volunteer, Head and Neck Oncology Clinic, OSU James Cancer Hospital

Emergency Room Aid, Madison County Hospital

Meals on Wheels Delivery Volunteer, Life Care Alliance