

SALLY BADRAN

ABOUT ME

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EDUCATION

Aug 2018 - May 2022 • **American University of Beirut (AUB)**

Bachelor of Engineering in Chemical Engineering

Cumulative GPA: 87.34 (3.8/4)

2003 - 2018 • **National Evangelical School in Nabatieh (NESN)**

Baccalaureate in Life Science (Average: 18/20)

EXPERIENCE

August 2021-present **Research Assistant at the chemical engineering laboratory in AUB**

Project aim: enhance the efficiency of delivering a block co polymer-coated anticancer drug

- Operated on Flash nano-precipitation (FNP) machine to produce nanoparticles
- Characterized nanoparticle size distribution using Dynamic Light Scattering (DLS) machine
- Produce calibration curves for the quantification of the drug using High Performance Liquid Chromatography (HPLC)

May 2021-July 2021 **Summer Internship at chemical engineering laboratory in AUB**

Project aim: incorporate metallic organic frameworks (MOFs) to add an antibacterial property to Poly Vinyl Chloride (PVC) nanofibrous membranes

- Synthesized PVC nanofibrous membranes by operating on an electrospinning machine
- Characterized the membranes by operating on several machines:
 - Scanning Electron Microscope (SEM)
 - Contact Angle System
 - Capillary Flow Porometer (CPF-1100AH)
- Investigated the nanofibers diameters using software called Digmizer
- Synthesized UIO66-Zr and ZIF-8 metallic organic frameworks (MOFs) crystals and characterized them using the following machines:
 - X-Ray Diffraction (XRD)
 - Atomic Absorption Spectroscopy

Jan 2020 • Optimized a waterproof electrospun cotton fabric and tested its efficiency

EXTRACURRICULAR ACTIVITIES

Sep 2021-present **International Biodiversity Day at AUB (IBDAA) 2022**
Leader of IBDAA 2022 event planned to take place on AUB Campus in April 2022

Aug 2020-Feb 2021 **Students for Sustainable Energy for all (SSEA) club, AUB, Lebanon**
Sponsorship Representative for Heat Up a Village (HUV), project that aims to install heating solar pannels for houses affected by Beirut explosion

Aug 2020-April 2021 **International Biodiversity Day at AUB (IBDAA) 2021**
Social media strategist and event planner for IBDAA 2021 event (Theme: Rebirthing Beirut-post explosion) which took place virtually on ZOOM and involved 7 participating national universities and +300 participants

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PROJECTS AND PUBLICATIONS

- Aug 2021-present** **Final Year Project : Anaerobic Co-digestion of Sewage Water and Food Waste**
- Modeled a MATLAB code of Anaerobic co-digestion using Anaerobic Digestion Model 1 (ADM1)
 - Established an Aspen HYSYS simulation for biogas upgrade and energy generation
 - Performed an economic analysis of the proposed flowsheet
- Dec 2020** **Factors Associated with Emotional Intelligence Among Youth University Students**
(Ibtissam Sabbah, Hala Sabbah, Rania Khamis, Reve Berbari, Sanaa Sabbah, Sally Badran, and Nabil Droubi) published in the European Journal of Medical Health and Sciences

WORKSHOPS AND CERTIFICATIONS

- Oct 2021** • Empathy and Ideation workshop by the Interdisciplinary Design Practice Program (IDPP)
- Aug 2021** • "Sustainability Assessment" to learn the Lifecycle Assessment (LCA) tool workshop
- Mar 2021** • Human-Centered Design workshop by the Interdisciplinary Design Practice Program (IDPP)
- 2020** • Leadership: From Conflict to Collaboration (By AUB Office of Student Affairs)
- 2019** • First Aid & CPR certified (by Red Cross)
- 2017** • Leadership & Time Management (by Waznat)
- 2017** • 11th Global Classroom Model United Nations (GC LAU MUN) participation

SUMMARY SKILLS

Languages: Arabic and English: fluent in reading, speaking, and writing. Turkish: Elementary in speaking.

Computer skills: Excel, Word, PowerPoint, MATLAB, LabVIEW, C++, LoopPro, Aspen HYSYS

Soft skills: technical and creative writing, research, laboratory and safety skills, multitasking, problem-solving, communication, and teamwork

Interests: pharmaceutical production, drug delivery, biology, nanotechnology, sustainability, cancer, and philosophy

Hobbies: hiking, basketball, and guitar playing