

DR SAMUEL FROST | RESUME

*"Transforming education through innovative design and strategic leadership,
with a steadfast commitment to excellence and student success."*



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››› Professional Summary

Highly skilled and dedicated Learning Designer and Acting Blended Learning Manager with extensive experience in developing and managing quality learning design processes. Proven expertise in collaborating with stakeholders to deliver captivating, student-centric learning experiences and leading cross-functional teams to implement innovative learning technologies. Exceptional problem-solving abilities, high-level organisational skills, and strong knowledge of pedagogical and andragogical principles. Committed to continuous improvement, achieving strategic objectives, and staying up-to-date with the latest in digital curriculum development, learning technologies, and project management techniques. With a robust background in STEM-based subjects, I bring a blend of pedagogical expertise and project management capabilities to ensure successful project completion and meet all student learning outcomes.

››› Core Qualifications

- › Proven ability to manage multiple projects to strict deadlines within a project management framework with excellent organisational and management skills.
- › Strong understanding and experience of a wide range of pedagogies and contemporary learning design approaches.
- › High proficiency in multiple digital authoring tools, including Numbas, Articulate Rise, and H5P.
- › Advanced knowledge of multiple LMSs and e-learning development software.
- › Extensive experience in curriculum development for pathway programs, first-year university courses, and RTOs.
- › Strong foundation in learning design with a focus on access, inclusion, and accessibility (WCAG 2.1).
- › Exceptional interpersonal, negotiation, and communication skills with the ability to lead cross-functional teams and engage stakeholders effectively.
- › Commitment to continuous improvement and staying current with innovative digital curriculum development and learning technologies.

››› Experience

2024 – Present **Acting Blended Learning Manager** Western Sydney University – The College

- › Lead multiple cross-functional teams within curriculum development projects, including Academic Champions, writers, and reviewers.
- › Successfully managed the implementation of block mode and the adoption of Articulate Rise for flipped pre-class material delivery.
- › Developed and maintained project timelines, Gantt charts, and milestone creation for curriculum development cycles.
- › Proactively implemented learning design best practice sessions with the learning design team.
- › Leading with a solutions-focused approach to achieve project goals and resolve challenges effectively
- › Facilitated training and induction workshops to effectively socialise new delivery models and processes.

2022 – Present **Learning Designer** Western Sydney University – The College

- › Collaborate with stakeholders to develop innovative learning solutions aligned with the University's 21C principles, Quality Matters standards, and College transition pedagogy principles.
- › Design and develop constructively aligned learning experiences, focusing on real-world applications and authentic assessment.
- › Implement project-based learning in subjects, enabling students to create portfolios for future professional use.
- › Lead the integration of digital tools such as Numbas for interactive quizzes, supporting formative assessments and mastery learning.
- › Collaborate with teachers to gather feedback and refine learning designs, enhancing the student experience.
- › Develop templates and best practice guidelines for curriculum development, ensuring consistency and quality across projects.

2020 – 2022 **Digital Media Designer** Western Sydney University – The College

- › Collaborated with learning designers and teaching coordinators to create engaging, pedagogically sound digital learning objects for assessments, teaching, and learning across College courses, including RTO programs.
- › Updated and maintained Blended Learning resources in digital repositories, efficiently managing content storage, dissemination, and archiving of project media.
- › Delivered training sessions, conducted presentations, and upskilled team members in digital media best practices and tools.

2013 – 2020 **Casual Academic** Western Sydney University

- › Taught Undergraduate Chemistry and Physics, delivering both theoretical lessons and practical demonstrations. Simplified complex chemical concepts for diverse student audiences, ensuring clarity and understanding.
- › Supervised laboratory practicals, guiding students through hands-on experiments while ensuring safety and academic rigour. Provided one-on-one and class-level tutoring, creating an inclusive and supportive learning environment.
- › Developed comprehensive teaching materials tailored to diverse learning styles and academic levels. Evaluated student performance through detailed marking, offering constructive feedback to promote academic growth.

››› Education

2022 – 2023 **Inspire Leadership Program** Western Sydney University

- › Applied the Leader/Manager Model to leadership roles.
- › Identified leadership capabilities and strengths in self and others.
- › Developed strategies to build positive working relationships and implemented an action learning project on leadership.

2021 **Cert IV TAE** The College RTO

- › TAE40116 obtained through Western Sydney University The College RTO.
- › Developed a strong foundation and understanding of the complex compliance structures within the RTO.
- › Gained practical skills in training and assessment, enhancing pedagogical techniques.
- › Applied knowledge to improve curriculum design and delivery within compliance frameworks.

2014 – 2018

Doctor of Philosophy

Western Sydney University

- » Focused on the development and characterisation of novel photo-activated biomaterials for sutureless tissue repair.
- » Managed independent research activities, including experiment planning, WHS assessments, and risk protocols.
- » Authored and presented original research, collaborating with academics and researchers globally.
- » Utilised advanced techniques such as Lasers, Mechanical Testing of Materials, and Microscopy.

2010 – 2013

Bachelor of Advanced Science Honours

Western Sydney University

- » Honours Class I (Dean's Merit List for GPA above 6.0 and in top 10 percent of students). Thesis: In Vitro Characterisation of a Novel Extracellular Matrix-Based Biomaterial for Sutureless Tissue Repair.
- » Majored in Chemistry with a Sub-Major in Physics, integrating knowledge across disciplines with a focus on Medical Nanotechnology.
- » Gained hands-on experience with advanced techniques such as Lasers, Mechanical Testing of Materials, Atomic Force Microscopy, and Scanning Electron Microscopy.
- » Conducted in-depth research and analysis, collaborating with peers and mentors to produce high-quality research contributions in the field of biomaterials.

»» Publications

Samuel J. Frost, Jessica Houang, James M. Hook, Antonio Lauto. *Chitosan adhesives with sub-micron structures for photochemical tissue bonding*. *Laser Therapy*, **2022**. 10.4081/ltj.2022.306

Ashour Sliow, Zhi Ma, Gaetano Gargiulo, David Mahns, Damia Mawad, Paul Breen, Marcus Stoodley, Jessica Houang, Rhiannon Kuchel, Giuseppe C. Tettamanzi, Richard D. Tilley, **Samuel J. Frost**, John Morley, Leonardo Longo, Antonio Lauto. *Stimulation and Repair of Peripheral Nerves Using Bioadhesive Graft-Antenna*. *Advanced Science*. **2019**. 10.1002/advs.201801212

Samuel J. Frost. *Chitosan-based nano-structured biomaterials for sutureless tissue repair* **2018**.

Abstract "Sutures and staples have long been considered the gold standard for tissue wound repair and re-constructive surgeries. Their usage can often result in foreign-body inflammation, infection, excessive scarring, as well as air and fluid leakage in procedures involving the lungs, blood vessels, dura mater, and urethra. With the advent of bioadhesives, there are now several alternative techniques available that limit these adverse effects. Although the majority of these techniques are minimally invasive and provide sufficient wound closure, they can lack flexibility, and present a risk of cytotoxicity. Sutureless procedures for wound repair and closure have recently integrated nano-structured devices to improve their efficacy and clinical outcome. Gecko-inspired adhesives, for example rely mostly on van der Waals forces to adhere to a surface. This adherence is challenged by the moist environment of the tissue during wound closure and significantly compromises the bonding strength."

Samuel J. Frost, Damia Mawad, Richard Wuhner, Simon Myers, Antonio Lauto. *Semitransparent bandages based on chitosan and extracellular matrix for photochemical tissue bonding*. *Biomedical Engineering Online*. **2018**. 10.1186/s12938-018-0444-1

Samuel J. Frost, Damia Mawad, Michael J. Higgins, Herleen Ruprai, Rhiannon Kuchel, Richard D. Tilley, Simon Myers, James M. Hook, Antonio Lauto. *Gecko-inspired chitosan adhesive for tissue repair*. *NPG Asia Materials*. **2016**. 10.1038/am.2016.73

Samuel J. Frost, Damia Mawad, James Hook, Antonio Lauto. *Micro- and Nanostructured Biomaterials for Sutureless Tissue Repair*. *Advanced Healthcare Materials*. **2015**. 10.1002/adhm.201500589

Matthew J. Barton, John W. Morley, David A. Mahns, Damia Mawad, Richard Wuhner, David Fania, **Samuel J. Frost**, Christian Loebbe, Antonio Lauto. *Tissue repair strength using chitosan adhesives with different physical-chemical characteristics*. **2014**. 10.1002/jbio.201300148

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