Curriculum Vitae

Matthew S. Russell Ph.D., A.E.

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<u>Summary of Qualifications:</u> Postdoctoral fellow specializing in biomechanics, motor control, tissue mechanics, and cognitive factors of fatigue and occupational injury. Research funded by CRE MSD and NSERC. Proponent of integrative and multidisciplinary research approaches. Proficient in computer programming for data and biophysical signal analysis. Proven ability to communicate complex technical concepts effectively through teaching at a post-secondary level and collaborating with interprofessional teams.

1. General Information

<u>1.1</u> Current Appointment

03-2025 – Present	 Postdoctoral Fellow, Occupational Biomechanics and Ergonomics Laboratory (OBEL) Department of Kinesiology, University of Waterloo, Waterloo, Ontario Laboratory director: Dr. Steven L. Fischer Investigating sensor fusion and machine learning frameworks for martable, acalable argonomic solutions
<u>1.2</u> Education	portable, scalable ergonomic solutions.
09-2020 – 02-2025	 Doctorate of Philosophy (Ph.D.) Candidate in Kinesiology and Health Science School of Kinesiology and Health Science, York University, Toronto, Ontario Dissertation: A Multi-Faceted Approach to Understanding the Effects of Fatigue on Muscle and Kinematic Variability. Advisors: Dr. Jaclyn N. Chopp-Hurley and Dr. Janessa D. M. Drake Nominated for Dissertation Prize.
09-2017 – 09-2019	 Masters of Health Science (M.H.Sc.) in Health Science Department of Kinesiology, OntarioTech, Oshawa, Ontario Thesis: <i>The Effect of Neck Fatigue on Shoulder Humeral Rotation</i> <i>Proprioception.</i> Advisors: Dr. Nicholas J. La Delfa and Dr. Bernadette Murphy
09-2013 - 04-2017	Honors Bachelor of Health Science (B.H.Sc.) in Kinesiology

Department of Kinesiology, OntarioTech, Oshawa, Ontario

- Thesis: *Exercise-Induced Asthma Knowledge among Coaches of the Special Olympics National Team.*
- Advisor: Dr. Shilpa Dogra

1.3 Academic Awards and Distinctions

12-2024	Vision: Science to Applications (VISTA) Post Doctoral Entrance Fellowship, York University, Faculty of Health
	 The VISTA Postdoctoral Entrance Fellowships provide financial support to high-caliber scholars doing postdoctoral research that is aligned with the VISTA program: <i>advance vision science through computational and biological research perspectives, and produce applications that generate positive health, societal, technological and economic impacts for Canada and the world.</i> Declined
05-2024	Inaugural Dean's Graduate Student Impact Award, York University, Faculty of Health
	• This award recognizes outstanding graduate students in Health who are making a significant impact by contributing to improving health and social, economic, and environmental sustainability locally and globally.
04-2024	 Certificate of Appreciation for Contributing to Student Success, York University, Calumet College and Stong College Awarded in support of fostering student success as a sessional course director.
12-2023	 CRE MSD HQP Travel Award, University of Waterloo, Center of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE MSD) Awarded towards International Society of Biomechanics (ISB) 2023
	presentation and accommodation expenses.
06-2023	Dr. Norman Gledhill Graduate Student Travel Award , York University, School of Kinesiology and Health Science
	• Awarded towards International Society of Biomechanics (ISB) 2023 presentation and accommodation expenses.
09-2022	Graduate Student Conference Travel Fund , York University, Faculty of Health
	 Awarded towards North American Congress on Biomechanics (NACOB) 2022 presentation and accommodation expenses.

09-2022 - 09-2025	Alexander Graham Bell Post-Graduate Scholarship – Doctoral (PGS- D), Natural Sciences and Engineering Council of Canada (NSERC)
09-2022 - 09-2023	Ontario Graduate Scholarship, York UniversityDeclined
01-2022 - 12-2022	 Stipend from CRE MSD Seed Grant, University of Waterloo, Center of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE MSD) Awarded to fund research goals aligned with workplace MSD prevention.
09-2021 - 09-2022	Ontario Graduate Scholarship, York University
09-2020 - 04-2021	Entrance Scholarship, York UniversityAwarded on scholarly merit
09-2016 - 04-2017	Presidents List, OntarioTechCumulative GPA above 3.8
09-2015 - 04-2017	Deans List, OntarioTechCumulative GPA above 3.5
09-2013 - 04-2014	Entrance Scholarship, OntarioTechAwarded on scholarly merit
08-2013 - 04-2021	Canada Student Grant for Students with Permanent Disabilities, Gov. of Canada

1.4 Employment

08-2024 – Present	Ergonomic Consultant – Contract Based Ergonow
	• Perform office workplace ergonomics assessments, physical demands assessments, and other contract-based assessments.
	• Ergonow consultant for clients in the Greater Toronto Area.
08-2023 - 12-2023	Sessional Course Director – Contract Limited Appointment KINE 1101 – Applied Anatomy and Physiology I
	School of Kinesiology and Health Sciences
	York University
	• This course takes a systemic approach to learning human anatomy and physiology and content includes an overview of the structure, function

physiology and content includes an overview of the structure, function, and organization of the human body from the cellular level to organ systems, and explores each major organ system, with a focus on maintaining homeostasis and clinical applications.

- Blended course format with 1 weekly lecture and 1 weekly assignment.
- Cohort of 250 students, 1st year university level.
- Course evaluation score of 6.1/7. 13% of students filled out evaluation.

04-2023 – 06-2023 Sessional Course Director – Contract Limited Appointment KINE 3460 – Regional Human Anatomy I

School of Kinesiology and Health Sciences York University

- A comprehensive study of the musculoskeletal, nervous, and cardiovascular structures of the human body. This course included an examination of the upper limb, lower limb and back.
- In-person, accelerated course format with 2 weekly lectures and 2 weekly laboratory assignments.
- Cohort of 50 students; 3rd year university level.
- Course evaluation score: 6.5/7. 10% of students filled out evaluation.

09-2022 – 04-2023 Research Assistant

Centre of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE MSD) University of Waterloo York University

- Supervisor: Dr Jaclyn N Chopp-Hurley
- Investigating shoulder, scapular, and thoracic coactivation changes during a fatiguing overhead task.
- Lead team of 1 Doctoral student and 4 Master's students.
- Trained Master's level students to collect and analyze electromyographic (Delsys Trigno, Delsys Discover), kinematic (Vicon MX, Vicon Nexus), and ultrasonographic data (GE Logiq E r9) in order to meet M.Sc. degree competencies. All Master's trainees had to be able to collect and analyze data from all systems.

Funded by: Center of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE MSD) (PI: Dr. Jaclyn N. Chopp-Hurley)

09-2020 – 04-2024 **Teaching Assistant**

School of Kinesiology and Health Sciences York University

KINE 3020: Skilled Performance and Motor Learning: F2020

• 12-week course; taught 1 time; 2 lab sections; 2 hours in-lab/section; 20-25 students/section.

- Led synchronous online labs to demonstrate principles of human motor learning, memory, skilled movement, reflexes and reaction time. <u>KINE 3030: Intro to Biomechanics: W2025, W2024, W2023, W2022, W2021</u>
- 12-week course; taught 5 times; 4 lab sections/year; 1 hour inlab/section; 20-25 students/section.
- Led synchronous online lab sections focused on simulating practical biomechanics labs skills in a virtual lab environment.
- Head TA; Marker/Grader. Prepared lab setup for students and TA's, organized TA schedules, compiled and input course marks for all students using online grading system (EClass).
 <u>KINE 4475: Clinical Biomechanics: F2024, W2022</u>
- 12-week course; taught 2 times; 2 lab sections; 1 hour in-lab/section; 20-25 students/section.
- Led synchronous online and in person labs demonstrating clinical biomechanics applications including: characteristics of gait, flexion-relaxation ratio, and muscle coactivation. KINE 4470: Muscle and Joint Biomechanics: F2024
- 12-week course; taught 2 time; 1 lab section; 1 hour in-lab/section; 25
- 12-week course; taught 2 time; 1 lab section; 1 hour in-lab/section; 25 students.
- Led in person labs demonstrating applied mechanics of static and dynamic equilibrium with applications specific to human joint mechanics.

KINE 2031: Human Anatomy: F2024, F2022, F2021

- 12-week course; taught 3 times; 4 lab sections/year; 1 hour inlab/section; 20-25 students/section.
- Led in person and online instructional sessions that reviewed human musculoskeletal, cardiovascular, digestive, anatomy and neuroanatomy using virtual, synthetic, and feline cadavers.

09-2019 – 02-2020 Research Assistant

Occupational Neuromechanics and Ergonomics (ONE) Laboratory Department of Kinesiology

University of Ontario, Institute of Technology

- Supervisor: Dr. Nicholas J. La Delfa
- Lead team of 2 Master's and 3 undergraduate level researchers investigating the efficacy of absolute versus relative loads when fatiguing the neck.
- Trained incoming Master's and undergraduate level students how to operate biomechanics lab hardware and software, including NDI Optotrak Optical Kinematics, NDI First Principles software, Visual 3D biomechanics modelling software, Delsys Trigno wireless EMG

hardware, Delsys EMGworks Acquisition and Analysis software, and Artinis Oxymon Near Infrared Spectroscopy (NIRS) hardware and Artinis Oxysoft software.

Funded by NSERC Discovery grant (PI: Dr. Nicholas J. La Delfa)

09-2019 – 02-2020 Laboratory Technician

Faculty of Health Sciences University of Ontario, Institute of Technology

- Assistant to Ryan Foley; Lab Technician and Interim Lab Specialist.
- 6 month contract; supervised 10 labs/week; 2 hours in-lab/section; 20-30 students/lab.
- Primary responsibilities involve acting as Lab Technician during Principles of Fitness, Neuroscience, and Biomechanics course labs, supervising undergraduate students and graduate-level teaching assistants, operating and teaching students about kinesiology lab technology, and troubleshooting software and hardware malfunctions to keep daily labs up and running.
- Trained to use equipment available in the OntarioTech undergraduate teaching labs, including: force plate-style transducer, kinematic motion analysis software, Humac-NORM isokinetic dynamometer, Bortec surface electromyography, and metabolic cart.

09-2018 – 08-2019 Research Assistant

Occupational Neuromechanics and Ergonomics (ONE) Laboratory Department of Kinesiology University of Ontario, Institute of Technology

- Supervisor: Dr. Nicholas J. La Delfa & Dr. Bernadette Murphy
- Conduct shoulder biomechanics and injury prevention research with an emphasis on quantifying the effects of altered neck afference on upper limb motor control.
- Prepare a series of informative videos on the foundational science and proper use of the department's lab technology, including: EEG, EMG, SEPs, TMS, and Active Kinematics.

Funded by CRE-MSD seed grant (PI: Dr. Nicholas J. La Delfa)

09-2017 – 12-2019 **Teaching Assistant**

Faculty of Health Sciences

University of Ontario, Institute of Technology

HLSC 4471U: Kinesiology II – Musculoskeletal Biomechanics: F2017, F2018, F2019

• 12 week course; taught 3 times; 2 lab sections/year; 2 hours inlab/section; 20-25 students/section.

	 Instructed students in a laboratory setting. Taught students principles of applied physics as they relate to biomechanics and taught the correct use of lab equipment including: force plates, surface EMG, and HUMAC NORM isometric/isokinetic dynamometry. <u>HLSC 2400U: Introduction to Movement Neuroscience: F2019</u> 12 week course; taught 1 time; 1 lab section; 1 hour in-class/section; 30 students/section. Second-year introduction to neuroscience course: instructed students in a tutorial setting. Taught concepts of basic brain and spinal cord anatomy, neurophysiology, and pathophysiology of common degenerative conditions. <u>HLSC 2100U: Introduction to Injury Management: W2017, W2018</u> 12 week course; taught 2 times; 2 lab sections/ year; 2 hours inlab/section; 20 students/section. Second-year athletic therapy course: Instructed students in a laboratory setting. Taught students principles of musculoskeletal injury assessment, prevention, and treatment. Also taught students the correct technique for applying various therapies including: Zinc tape, Leuko tape, Hypofix tape, and Ultralight tape. HLSC 3476U: Advanced Injury Management: W2017, W2018
	 12 week course; taught 2 times; 2 lab sections/ year; 2 hours in- lab/meticry 20 staduate/meticry
	 Third-Year athletic therapy course: Prepared students for practical exposure to athletic injury management and prevention by teaching more in depth taping and first aid practices. Highlighted focus on chronic injury management.
04-2016 - 08-2020	Field-side Athletic Injury Therapist
	Ontario Soccer League & Soccer Academy Alliance Canada
	• Field-side athletic therapy coverage for youth soccer games, 20yrs and under
	 Prevention, assessment, and treatment of injuries.
04-2016 – 08-2017	 Field-side Athletic Injury Therapist Vikings Rugby Field-side athletic therapy coverage for youth and men's rugby games. Helped institute club-wide baseline concussion testing – over 200 athletes.
02-2015 - 08-2018	 Rehabilitation Therapist Restore Home Therapy Treatment of physically disabled individuals older adults and groups
	- reaction of physically disabled multiluais, older adults, and gloups.

- Fully designed and implemented rehabilitation strategies for clients to improve quality of life, activities of daily living, and gait performance.
- Teach 'falls prevention' classes aimed at reducing risk for falls in elderly. Classes focus on strengthening, balance training, and coordination.
- Performed balance and gait assessments using Tinetti protocol.

2. Research and Academic Experience

2.1 Areas of Interest

Neuromechanics of fatigue, neuromuscular control, human factors, physical and cognitive ergonomics, motor behavior.

2.2 Research Skills

Electrocardiography, surface electromyography, and indwelling	Musculoskeletal modelling in OpenSIM and MATLAB
electromyography (over 400 intramuscular insertions)	Isometric and isokinetic dynamometry
Motion capture using Vicon, NDI, Theia,	Gait and balance assessment and analysis
and XSens	Near Infrared Spectroscopy (NIRS)
Biophysical signal treatment and analysis programming in MATLAB, Python, and Visual 3D	Biophysical signal acquisition using First Principles, LabView, Delsys EMGworks, Artinis OXYsoft, and Visual 3D software
Coding in MATLAB, R, and Python	Statistical analysis in SPSS, R, and Stata
Digital human modelling and ergonomic	Musculoskeletal ultrasound imaging
assessment	Ultrasonographic shear-wave elastography

2.3 Scholarly Work

<u>2.3.1 Publications</u> – 5 first author; 1 second author

- Russell M.S., Vasilounis S.S., Lefebvre E., Drake J.D.M., Chopp-Hurley J.N. Coactivation Changes following a Fatiguing Overhead Drilling Task: Implications for Subacromial Impingement Syndrome. *Applied Ergonomics*. <u>https://doi.org/10.1016/j.apergo.2025.104470</u>
- Russell M.S., Vasilounis S.S., Desroches D., Alenabi T., Drake J.D.M., Chopp-Hurley J.N. Evaluating the Relationship Between Surface and Intramuscular-Based Electromyography Signals: Implications of Subcutaneous Fat Thickness. *Journal of Applied Biomechanics*. <u>https://doi.org/10.1123/jab.2024-0101</u>

 Russell M.S., Vasilounis S.S., Lefebvre E., Drake J.D.M., Chopp-Hurley J.N. (2024) Variability in Musculoskeletal Fatigue Responses associated with Repeated Exposure to an Occupational Overhead Drilling Task Completed on Successive Days. *Human Movement Science*, 97;103276. https://doi.org/10.1016/j.humov.2024.103276

 Russell M.S., La Delfa, N.J., Murphy B. Assessing the Contribution of Different Upper Limb Degrees of Freedom to an Unconstrained Shoulder Proprioception Task. *Journal of Electromyography and Kinesiology*, 78;102920. https://doi.org/10.1016/j.jelekin.2024.102920

 Russell, M. S., La Delfa, N. J., & Murphy, B. (2021). The Effect of Neck Muscle Fatigue on Shoulder Humeral Rotation Joint Position Sense. *Journal of Electromyography and Kinesiology*, 59;102554.

https://doi.org/10.1016/j.jelekin.2021.102554

- O'Neill, C., Russell, M., Balogh, R., Lloyd, M., & Dogra, S. (2019). Asthma prevalence and control levels among Special Olympics athletes, and asthma-related knowledge of their coaches. *Journal of Intellectual Disability Research*, 63(4), 338–345. <u>https://doi.org/10.1111/jir.12579</u>
- <u>2.2.2</u> Submitted -2 first author
 - Russell M.S., Mulla D., Keir P., Blana D., Chadwick E.K., Drake J.D.M., Chopp-Hurley J.N. Shoulder Kinematic and Muscle Activity Compensations to Scapular Stabilizer Weakness: An Optimal Control Framework. *Annals of Biomedical Engineering* Submitted April 21st, Manuscript ID: <u>ABME-D-25-00699</u>.
 - Russell M.S., Drake J.D.M., Chopp-Hurley J.N. Congruency of Fatigue-Mediated changes in Shear Wave Velocity, Upper Limb Force, Muscle Activity, and Kinematics of the Scapular Stabilizer Muscles. *Human Movement Science*. Submitted April 11th, Manuscript ID: <u>HMS-D-25-00204</u>.

<u>2.3.3 In Progress</u> - 2 second author

- 1. Johnston, H., **Russell M.S.**, Irvin, E., King, T., Van Eerd D. Psychosocial Factors for Occupational Injury Risk: A Systematic Review.
- 2. Vasilounis S.S., **Russell M.S.**, Lefebvre E., Drake J.D.M., Chopp-Hurley J.N. Lumbar and Trunk Muscular and Kinematic Responses Following a Static Overhead Drilling Task to Fatigue.

2.3.4 Peer Reviewed Conference Proceedings - 8 first author, 3 second author

1. **Russell M.S.**, Drake J.D.M., Chopp-Hurley J.N. Fatigue-Mediated changes in Shear Wave Velocity and Muscle Activity of the Scapular Stabilizer Muscles. *30th Congress of the Internation Society of Biomechanics* (international). Sweden. July 2025.

- Russell M.S., Mulla D., Keir P., Blana D., Chadwick E.K., Drake J.D.M., Chopp-Hurley J.N. Predicting Scapulothoracic Kinematics using an Optimal Control Framework. *International Shoulder Group (ISG) 2024* (international). Canada. June 2024.
- 3. **Russell M.S.**, Vasilounis S.S., Lefebvre E., Drake J.D.M., Chopp-Hurley J.N. Day-To-Day Muscle Activity and Kinematic Adaptations Associated with an Occupational Overhead Drilling Task. *Association of Canadian Ergonomists (ACE) 2023 Conference: Connected in Ergonomics* (national). Canada. October 2023.
- 4. Vasilounis S.S., **Russell M.S.**, Chopp-Hurley J.N., Drake J.D.M. The Effect of an Occupational Overhead Drilling Task to Fatigue on Trunk and Pelvis Kinematics and Kinetics. *Association of Canadian Ergonomists (ACE) 2023 Conference: Connected in Ergonomics* (national). Canada. October 2023.
- Johnston H., Russell M.S., King T., Irvin E., Van Eerd D. A Comprehensive Scope of Psychosocial and Physical Risk Factors for MSD. *Prevention of Work-Related Musculoskeletal Disorders 2023* (international). India. September 2023.
- Russell M.S., Vasilounis S.S., Drake J.D.M., Chopp-Hurley J.N. Investigating Shoulder Muscle Coactivation Ratio Changes Following and Overhead Fatigue Task. 29th Congress of the International Society of Biomechanics (international). Japan. August 2023.
- Russell M.S., Vasilounis S.S., Desroches D., Alenabi T., Drake J.D.M., Chopp-Hurley J.N. Investigating the Effect of Subcutaneous Fat Thickness on Surface and Intramuscular Based Electromyography Signals in the Lower Limb. *North American Congress on Biomechanics 2022* (international). Canada. August 2022.
- Desroches D., Russell M.S., Vasilounis S.S., Alenabi T., Drake J.D.M., Chopp-Hurley J.N. The Effect of Contraction Intensity on the Relationship Between Surface and Indwelling Electromyography. *North American Congress on Biomechanics 2022* (international). Canada. August 2022.
- 9. **Russell M.S.**, Murphy B., La Delfa N.J. Evaluation of a Novel Shoulder Joint Position Sense Measurement Device. *21st Biennial Meeting of the Canadian Society for Biomechanics* (national), Canada. May 2021.
- Russell M.S., La Delfa N.J., Murphy B. The Effect of Neck Muscle Fatigue on Shoulder Joint Position Sense. 2020 ISEK Virtual Congress Online (international), Japan. July 2020.
- 11. Russell M.S., O'Neill, C., Llyod M., Balogh R., Dogra S. Exercise-Induced Asthma Knowledge among Coaches of the Special Olympics National Team. 50th General Meeting of the Canadian Society for Exercise Physiology. (national). October 2017. <u>https://doi.org/10.1249/01.mss.0000517736.27975.0f</u>
- 2.3.5 Non-Peer Reviewed Conference Proceedings 9 first author, 1 second author
 - 1. **Russell M.S.,** Mulla D., Keir P., Blana D., Chadwick E.K., Drake J.D.M., Chopp-Hurley J.N. Predicting Scapulothoracic Kinematics in Overhead Postures. *19th Annual Ontario Biomechanics Conference*. Toronto, Ontario, Canada. May 2024.

- 2. **Russell M.S.** Drake J.D.M., Chopp-Hurley J.N. Scapular Muscle Shear Modulus Following a Fatigue Task. *19th Annual Ontario Biomechanics Conference*. Toronto, Ontario, Canada. May 2024.
- 3. Vasilounis S.S., **Russell M.S.**, Chopp-Hurley J.N., Drake J.D.M. Effect of an Overhead Fatiguing Task on Trunk Muscle Responses to Dynamic Movements. *19th Annual Ontario Biomechanics Conference*. Toronto, Ontario, Canada. May 2024.
- 4. **Russell M.S.,** Vasilounis S.S., Lefebvre E., Drake J.D.M., Chopp-Hurley J.N. Shoulder Muscle Coactivation Ratio Changes Following an Overhead Fatigue Task. *18th Annual Ontario Biomechanics Conference*. Waterloo, Ontario, Canada. May, 2023.
- 5. **Russell M.S.**, Zabihosseinian M., La Delfa N.J., Murphy B. Altered Sensory Input to the Neck may Impair Shoulder Joint Proprioception. *Exercise Neuroscience Group Conference*. Hamilton, Ontario, Canada. June, 2019.
- 6. **Russell M.S.**, Zabihosseinian M., La Delfa N.J., Murphy B. Validity and Reliability of an Experimental Device to Assess Shoulder Proprioception. *Southern Ontario Motor Behavior Symposium*. Toronto, Ontario, Canada. May, 2019.
- Russell M.S., Adair-Samuel S., Zabihosseinian M., La Delfa N.J., Murphy B. Validity and Reliability of an Experimental Device to Assess Shoulder Proprioception. 16th Annual Ontario Biomechanics Conference. Alliston, Ontario, Canada. March, 2019.
- 8. **Russell M.S.** How Neck Fatigue Impairs Shoulder Position Sense. *OntarioTech Three Minute Thesis.* Oshawa, Ontario, Canada. March 2019.
- 9. **Russell M.S.**, Zabihosseinian M., La Delfa N.J., Murphy B. The Effect of Cervical Extensor Muscle Fatigue on Scapulohumeral Kinematics and Proprioception. *Southern Ontario Motor Behavior Symposium*. Guelph, Ontario, Canada. May, 2018.
- Russell M.S., Zabihosseinian M., La Delfa N.J., Murphy B. Validation of a Novel Device and Protocol to Assess Uni-Planar Shoulder Proprioception. 15th Annual Ontario Biomechanics Conference. Alliston, Ontario, Canada. March, 2018.
- <u>2.3.6 Technical Presentations and Reports</u> 6 first author.
 - Russell M.S. Stakeholder Report: Efficacy and Usability of Powered Stair Chair for Patient Extrication. 65 Slides. Submitted to S. Motley; Clinical Research Assistant, Stryker Medical. March 27th, 2025.
 - 2. **Russell M.S.** *Proposal:* A Multi-Faceted Approach to Understanding the Effects of Fatigue on Muscle and Kinematic Variability. 45 Pages and 34 Slides. Submitted to the York University School of Kinesiology and Health Science. October 2023.
 - Russell M.S. Graduate Skills Development Workshop: Gait Modelling Best Practices. 11 Slides. Submitted to Dr. Jaclyn N. Chopp-Hurley and Dr. Janessa D.M. Drake. June, 2021.
 - Russell M.S. Graduate Research Seminar Series: The Effect of Neck Muscle Fatigue on Shoulder Humeral Rotation Proprioception. 40 Slides. Submitted to Dr. Janessa D.M. Drake. May, 2021.

- Russell M.S. Graduate Skills Development Workshop: Modelling in OpenSIM. 39 Slides. Submitted to Dr. Jaclyn N. Chopp-Hurley and Dr. Janessa D.M. Drake. April, 2021.
- 6. **Russell M.S.** Upper Limb 3D Kinematics Data Collection Manual. 4 pages. Submitted to Dr. Nicholas J. La Delfa. July, 2019.

2.3.7 Ergonomic and Human Factors Reports – 2 first author; 1 third author; 1 last author

- Russell M.S. and La Delfa N.J. Campus Health & Wellness Centre (CHWC) Front Reception: Brief Ergonomics Recommendations. 12 slides. Submitted to CHWC. May, 2019.
- 2. **Russell M.S.** Workplace Human Factors Assessment for Lab J101-B. 1 36" by 48" digital poster and report. Submitted to Dr. Michael Agnew, Ian Barker, Ryan Foley & the OntarioTech University Department of Kinesiology. March, 2019.
- Foley S., Abdel-Malek D., Russell M.S., La Delfa N.J. Biomechanics Assessment of Shoulder Exposures and Fatigue during Simulated Wingsuit Flight. 10 pages. Submitted to Dr. Angelo Grubesic & The Automotive Centre of Excellence at Ontario Tech University. August, 2018.
- Edgar N., Kostrzewa K., Lynch J., Malcolmson D., McDougall C., Russell M.S. M&M's Back of Store Ergonomic Task Analysis. 10 pages and 17 slides. Submitted to Dr. Nicholas Antony and M&M's Durham Region management. March 2017.

2.4 Supervision and Mentorship

04-2025 – Present	Joseph Kim , Master of Health Science Student. Co-Supervised by Dr. Steven L. Fischer Project Title: <i>TDB</i>
03-2025 – Present	Trinity Pambis , Undergraduate Co-op and thesis student. Co-supervised by Dr. Steven L. Fischer. Project Title: <i>Height and Sex Moderators on Mechanical Exposures on the</i> <i>Low Back during Stair Chair Extrication</i> .
03-2025 – Present	Karen Guo , Undergraduate Volunteer. Co-supervised by Dr. Steven L. Fischer. Project Title: <i>TDB</i>
09-2024 - 04-2025	Dominic Zapata , Master of Health Science Student. Supervised by Dr. Jaclyn N. Chopp-Hurley. Project Title: <i>Biomechanical Analysis of Therapeutic Exercises for</i> <i>Subacromial Impingement Syndrome and/or Rotator Cuff Tear</i> .
09-2023 - 08-2024	Emily Lefebvre , Master of Health Science Student. Supervised by Dr. Janessa D.M. Drake.
09-2023 - 08-2024	Oriana Culig , Undergraduate thesis student. Supervised by Dr. Jaclyn N. Chopp-Hurley.

09-2019 – 08-2020	Rahul Pabla, Master of Health Science Student. Supervised by Dr.
	Nicholas J. La Delfa.
	Project Title: The Effect of Concurrent Mental and Physical Fatigue on
	Physical Endurance Performance, Strength, and Muscle Activity.

09-2019 – 08-2020 **David Abdel-Malek**, Undergraduate thesis student. Supervised by Dr. Nicholas J. La Delfa. Project Title: *Reliability of Common Biophysical Indices of Neuromuscular Fatigue*.

2.5 Professional Development

Certificate in Teaching and Learning in Higher Education Course Completion Certificate
Awarded by: Natasha May – Teaching Commons Liaison
York University
Core Competencies for Sex and Gender in Biomedical Research
Awarded by: Angela Kaida – Scientific Director
Canadian Institutes for Health Research Institute of Gender and Health
Engaging in Higher Education Teaching and Learning Workshops Certificate of Completion
Awarded by: Natasha May – Teaching Commons Liaison York University
Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research ethics (TCPS 2: CORE) <i>Certificate of Completion</i>
Awarded by: Tri—Council Panel of Research Ethics
Graduate Skills Development Workshop: An Introduction to Psychometric Properties
Workshop leader: Hajr Hameed – Master of Health Science Student York University
Respect, Equity, Diversity, and Inclusion (REDI) Training Series <i>Certificate of Completion</i>
Awarded by: Marian MacGregor – Executive Director; Center for Human Rights, Equity, and Inclusion, Mar 23 rd York University

02-2021 – Present	Canadian Associate Ergonomist (A.E.) Canadian College for the Certification of Professional Ergonomists (CCCPE) license# 21-AE233
11-2020	Graduate Skills Development Workshop: Conducting a Systematic Review Workshop leader: Alexandra Mahna – Master of Health Science Student York University
10-2018	Health and Safety Orientation for Supervisors Certificate of Completion Awarded by: Ontario Tech Human Resources Department
10-2018	AODA Standard Training Certificate of Completion Awarded by: Ontario Tech Human Resources Department
09-2017	WHIMIS <i>Certificate of Completion</i> Awarded by: Ontario Tech Human Resources Department University of Ontario, Institute of Technology
09-2017	Health and Safety Orientation for Workers Certificate of Completion Awarded by: Ontario Tech Human Resources Department
09-2016	Workplace Violence and Harassment Prevention (Bill 168) <i>Certificate of Completion</i> Awarded by: Ontario Tech Human Resources Department
04-2016 – 04-2019	Advanced Medical First Responder (AMFR) License Awarded by: St. John Ambulance Durham Region

3. Service and Administrative Positions

3.1 Professional Service

03-2025 Invited Keynote Speaker International Trainee Seminar Series

	York University Muscle Health Research Centre (MHRC) MHRC Director: Dr. Christopher Perry Student Executive Chair: Emily Fraschetti
01-2025	Tenure and Promotion Committee: Dr. Michael Rotondi <i>York University Faculty of Health Science</i> Committee Chair: Dr. Jennifer Kuk
	Administrative Assistant to the Chair: J. Gary Meyers
01-2025	Tenure and Promotion Committee: Dr. Mathieu Poirier
	York University Faculty of Health Science
	Committee Chair: Dr. Jennifer Kuk
	Administrative Assistant to the Chair: J. Gary Meyers
12-2024	Tenure and Promotion Committee: Dr. Rebecca Basset-Gunter <i>York University Faculty of Health Science</i>
	Committee Chair: Dr. Jennifer Kuk
	Administrative Assistant to the Chair: J. Gary Meyers
07-2024 - 06-2025	Project Consultant: Biomechanical and Biomedical Engineering
	Queens University Biomedical Innovation Team
	• Provide project oversight and technical consultancy on undergraduate student-lead biomedical engineering projects.
06-2024	Conference Organizing Committee Co-Chair
	International Shoulder Group (ISG) of the International Society for Biomechanics (ISB)
	• Developed and maintained updates on conference website, organized conference registrations, led conference social event, led conference lab tour and demonstration.
05-2024	Conference Organizing Committee Co-Chair
	 Developed and maintained updates on conference website, organized conference registration, led conference social event, led conference lab tour and demonstration.
11-2023 - 04-2024	Invited Researcher Panelist
	York University Student Healthcare Spotlight Inaugural Agents Of Change Initiative Promoting Sustainable Healthcare
	Solutions
02-2024	Invited Applied Lecture and Laboratory Demonstration

Course: KINE 6175 Advanced Biomechanical Modelling Course Instructor: Jaclyn N. Chopp-Hurley
Invited Researcher Panelist
Undergraduate Health Research Exploration (UHRE) 2023 Research Summit
York University Undergraduate Health Research Exploration (UHRE) Program
Invited Guest Lecturer
Course: SC/NATS 1650 Human Anatomy for the Fine Arts
Course Instructor: Heather Johnston
Invited Applied Lecture and Laboratory Demonstration
Course: KINE 4460 Occupational Biomechanics
Course Instructor: Janessa D. M. Drake
Invited Applied Lecture and Laboratory Demonstration <i>Course: KINE 6175 Advanced Biomechanical Modelling</i> Course Instructor: Jaclyn N. Chopp-Hurley

3.2 Academic Experience

09-2021 – 04-2025	Lead, Media and Social Media Student Executive
	Muscle Health Research Centre (MHRC)
	York University
	• Collaborate to host invited keynote presentations from distinguished researchers and research trainees.
	• Develop and distribute promotional materials, develop and maintain website (<u>https://www.yorku.ca/mhrc/</u>).
04-2016 - 04-2017	Research Practicum Student
	Department of Kinesiology
	University of Ontario, Institute of Technology
	• Thesis: Exercise-Induced Asthma Knowledge among Coaches of the
	Special Olympics National Team.
	Advisor: Dr. Shilpa Dogra
04-2016 - 04-2017	Varsity Student Athletic Therapist
	Durham Lords Woman's Softball, Fall 2016 season
	University of Ontario, Institute of Technology
	Supervisors: Jessica Salt, Alison Chasczewski, Saul Behrman

3.3 Academic Boards and Committees

02-2023 – Present	International Society of Biomechanics (ISB) Member
02-2021 – Present	Association for Canadian Ergonomists (ACE) Member
11-2020 – Present	Canadian Society for Biomechanics (CSB) Student Member
04-2020 – Present	International Society of Electrophysiology and Kinesiology (ISEK) Student Member
09-2021 - 04-2025	Muscle Health Research Centre Student Executive Committee Member
09-2023 - 09-2024	York University School of Kinesiology and Health Science (KAHS) Graduate Council Graduate Student Member
09-2017 – 04-2019	 Canadian Association for Research in Regenerative Medicine OntarioTech Branch Elected graduate student representative
09-2017 – 04-2019	 Student Affairs and Research Culture Committee Faculty of Health Sciences University of Ontario, Institute of Technology Elected graduate student representative
3.4 Community	<u>Service</u>

- 04-2021 04-2022 Summer Event's Volunteer Oshawa Senior Citizens Centres (OSCC)
- 10-2017 03-2019Wrestling CoachSinclair Secondary School
- 10-2015 04-2017 **Basketball Coach** Special Olympics Canada

- 04-2016 Athlete Testing Training Camp Special Olympics Ontario
- 09-2012 04-2013 Assistant Physical Education Instructor for Developmentally Delayed Classroom Jack Miner Public School
- 04-2009 07-2011 **Camp Counselor** Nova's Ark Camp for Individuals with Developmental Disabilities

4. References

Dr. Jaclyn N. Chopp-Hurley, Ph.D.

- Doctoral Supervisor
- Assistant Professor
- jnhurley@yorku.ca

Dr. Janessa D. M. Drake, Ph.D.

- Doctoral Supervisor
- Associate Professor
- jdrake@yorku.ca

Dr. Heather O'Reilly, Ph.D., A.E.

- Collaborator and project lead on psychophysical ergonomics factors review at the Institute for Work and Health (IWH)
- Assistant Professor, Interdisciplinary Science
- <u>heather.oreilly@mcmaster.ca</u>

Dr. Nicolette Richardson, Ph.D.

- Mentor and supervisor during role as Course Director and Teaching Assistant; York University
- Undergraduate Program Director and Associate Professor, Teaching Stream
- <u>nrichar@yorku.ca</u>

Dr. Nicholas J. La Delfa, Ph.D.

- Master's Supervisor
- Assistant Professor
- <u>nicholas.ladelfa@ontariotechu.net</u>

Dr. Bernadette Murphy, Ph.D., D.C.

- Master's Supervisor
- Associate Dean of Research and Graduate Studies
- <u>bernadette.murphy@ontariotechu.net</u>

Ryan Foley, M.Sc., CSEP-CEP.

- Immediate supervisor during role as Interim Laboratory Technician
- Laboratory Technician and Interim Laboratory Coordinator at OntarioTech
- <u>ryan.foley@ontariotechu.ca</u>