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## Address

Faculty of Kinesiology, University of Calgary: Office KNB 436

## Education

- 2009 - **Doctorate in Muscle Physiology** University of Calgary, Canada  
2017  
Discipline: Skeletal Muscle Physiology.  
Main subjects: Muscle Physiology, Computational Biology, Data Analysis, Structural Modeling, Stochastic Agent based Modelling.  
Thesis: "Three dimensional stochastic computer model of the skeletal muscle half sarcomere: changes in calcium diffusion caused by the myofilament lattice."  
Committee: Drs., Brian MacIntosh, Henk ter Keurs, Christian Jacob, Chris Barclay.
- 1997 - **Master of Science** University of Calgary, Canada  
2000  
Discipline: Exercise Physiology.  
Main subjects: Cycling Power, Muscle Power.  
Thesis: "Validation of single maximal effort tests for power measurement."  
Committee: Drs., Brian MacIntosh, Stephen Norris, Douglas Syme.
- 1990 - **Bachelor's Degree in Physical Education** University of Calgary, Canada  
1993  
Main subjects: Outdoor Pursuits, Leadership in Extreme Environments.  
Senior Project: "Calgary River Cleanup, Conservation of Calgary Rivers and Pathways".

## Courses Taught

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### KNES 213 Introduction to Kinesiology

Year	Term	Class size
2024	Winter	141
2023	Fall	145
2023	Spring	55
2023	Winter	150
2022	Fall	150
2022	Winter	150
2021	Fall	144
2021	Winter	148
2020	Fall	133
2020	Winter	120
2019	Fall	120

### KNES 355 –Human Growth and Development

Year	Term	Class size
2021	Winter	262
2020	Winter	250

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## **KNES 375 –Tests and Measurements in Kinesiology**

<b>Year</b>	<b>Term</b>	<b>Class size</b>
<b>2023</b>	Fall	71
<b>2022</b>	Fall	78
<b>2022</b>	Winter	77
<b>2021</b>	Winter	80
<b>2020</b>	Winter	77

## **KNES 381 –Computer Applications in Kinesiology**

<b>Year</b>	<b>Term</b>	<b>Class size</b>
<b>2024</b>	Fall	24
<b>2023</b>	Winter	24
<b>2012</b>	Winter	24
<b>2010</b>	Fall	24

2022	<b>KNES 475 –Physiological bases of Athletic Performance</b>	Winter 2022 –Class Size 40
2020 - Current	<b>KNES 613 –Practical Skills for Applied Exercise Physiology</b>	Fall–2024 –Class Size 14
2020 - Current	<b>KNES 614 –Practical Skills for Applied Exercise Physiology</b>	Winter –2023 –Class Size 14
2020 - Current	<b>KNES 606 –Practical Skills for Applied Exercise Physiology</b>	Fall–Winter 2022-23 –Class Size 14
		Fall–Winter 2021-22 –Class Size 15
		Fall–Winter 2020-21 –Class Size 9

## **Honours Students and Self-Directed Studies**

<b>Course Title</b>	<b>Name</b>	<b>Project</b>
<b>KNES 604</b> 2020-2021	Tara McNeil	Physiology of Swimming
<b>KNES 490</b> 2020-2021	Ashley Lorenz	VR Fitness
<b>KNES 490</b> 2021-2022	Allysan Lui	Aerobic Power in Dancers
<b>KNES 490</b> 2021-2022	Chantel Vogel	Motivation in VR Zwift
<b>KNES 490</b> 2021-2022	Andreas Cordido	FTP ramp Zwift
<b>KNES 466</b> 2022-2023	Ashley Matesic	Polling cadence in x-country skiing

## **Research Institute Memberships**

2024	<b>Alberta Children's Hospital Research Institute</b> Alberta Health Services and the Alberta Children's Hospital Foundation	University of Calgary
2024	<b>McCaig Institute for bone and joint health</b> Cumming School of Medicine	University of Calgary

## **Committee Work**

2024	<b>Search Committee: Exercise Physiology position</b> Faculty of Kinesiology	University of Calgary
2022- Current	<b>Teaching and Learning Committee</b> Faculty of Kinesiology	University of Calgary
2019 - Current	<b>Learning Technologies Advisory Committee</b> Faculty of Kinesiology	Taylor Institute for Teaching and Learning
2021 - Current	<b>Ethics Committee for Human Studies</b> Faculty of Kinesiology representative	University of Calgary
2021 - 2022	<b>National Survey of Student Engagement</b> Faculty of Kinesiology	University of Calgary
2019 - 2021	<b>New Student Orientation</b> Faculty of Kinesiology	University of Calgary
2019 - 2021	<b>Student Orientation - Faculty Advisor Panel</b> Faculty of Kinesiology	University of Calgary
2021	<b>Search Committee: Human Growth and Development position</b> Faculty of Kinesiology	University of Calgary
2020	<b>Student Orientation Online Technologies Special Committee</b> Central Orientation Committee	University of Calgary
2019	<b>YUJA Video Evaluation Group</b> Faculty of Kinesiology	Taylor Institute for Teaching and Learning

## Summer & Honours Students

2024	<b>Undergraduate student research award (NSERC) –Arianna Hu</b> Investigating the effect of flash freezing on active force production of skinned fibres
2024	<b>Summer student Internship Latif Oerkhil</b> Investigating active force and sarcomeric protein content in gracilis muscle of children with cerebral palsy
2023 - 2024	<b>Kinesiology Honours 590 Conner Hass</b> Palmer cooling and the effect on metabolic work production on exercise performance
2023 - 2024	<b>Kinesiology Honours 590 Thomas Manktelow</b> X-country skiing double poling efficiency
2023	<b>Undergraduate Student Research Award (NSERC) –Birtej Mangat</b> Investigating the Mechanical Properties of Cardiac Muscle in Obese Rats
2023	<b>Summer student internship –Latif Omerkhil</b> Investigating active force in muscle fibres from children with cerebral palsy
2022 - 2023	<b>KNES 466 Advanced Projects in Biomechanics –Ashley Matesic</b> Relative Hip Drop Timing at Different Speeds and its Relationship to Performance and Force Production in Cross-Country Skiing Double Poling

2022	<b>Kinesiology Undergraduate Research Funding –Thomas Manktelow</b> Objective Analysis of Double-Pole Timing in X-Country Skiing.	
2022	<b>PURE Summer Student Ship –Gavin Thomas</b> Active force in skeletal muscle fibres from children with cerebral palsy	
2021 - 2022	<b>KNES 490 Honours Project –Allysan Lui</b> Assessment of Aerobic power in Collegiate Contemporary Dance Using a High-Intensity Dance Performance Fitness Test (DAFT2)	
2021 - 2022	<b>KNES 490 Honours Project –Chantal Vogel</b> Effect of Zwift's Virtual Setting on Individual Outcomes and Performance in Comparison to Traditional Stationary Cycling	
2021 - 2022	<b>KNES 490 Honours Project –Andreas Cordido</b> Exercise Thresholds: Functional Threshold Power on an Exergaming Platform versus Power Output at the Respiratory Compensation Point	
2021	<b>Biomedical Engineering Summer Studentship –Maleeka Malik</b> <i>Investigating the changes in titin isoforms and concentration and sarcomere organization in skeletal muscles of obese rats</i>	
2020 - 2021	<b>KNES 490 Honours Project –Ashley Lornez</b> <i>Investigating Physical Activity Intensity of Virtual Reality Exergame in Recreationally Active Young Adults</i>	

## Graduate Student Trainees

2021 - 2022	<b>Jesse Oswald</b> Mentoring undergraduate students in Honours Research projects	MKin Capstone project
2021 - 2022	<b>Keenan McDougal</b> CURE Coach Course research project design in Kinesiology 375	CURE Program
2021 - 2022	<b>Krystyna Sandowski</b> CURE Coach Course research project design in Kinesiology 375	CURE Program
2021 - 2022	<b>Krystyna Sandowski</b> Alternative Laboratory Teaching Methods in Undergraduate Kinesiology A Case Study: KNES 375	MKin Capstone Project

## Supervisory Committees

2020 - Present	<b>PhD. Keanen McDougal</b> <i>Alterations in fatigue, efficiency, and pedaling mechanics during incremental and constant-load high-intensity cycling</i>	Faculty of Kinesiology
2019 - Present	<b>PhD. Jim Griffiths</b> <i>Heart Rate Novel Methods of Detection</i>	Faculty of Kinesiology

## Graduated graduate students

2022 - 2024	<b>MSc. Brynn Lindstrom</b> Does critical power underestimate thresholds inexperienced exercisers.	Faculty of Kinesiology
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2023 - 2024	<b>MSc. Timi Ajayai</b> <i>Detrended fluctuation analysis of heart rate data during constant intensity exercise</i>	Faculty of Kinesiology
2022 - 2024	<b>PhD. Gabriele Marinari</b> <i>New approaches to characterize the <math>\dot{V}O_2</math> slow component and its physiological mechanisms</i>	Faculty of Kinesiology
2022 - 2024	<b>MSc. Marissa Doroshuk</b> <i>Novel Ovulation Research-Recruitment Methods for an App Study</i>	Faculty of Kinesiology
2022 - 2024	<b>MSc. Alissa Kazakoff</b> <i>Novel Ovulation Research-Recruitment Methods for an App</i>	Faculty of Kinesiology
2021 - 2022	<b>Msc. Mary Mackie</b> <i>The "Step-Ramp-Step" Protocol: Evaluating the Effects of a Smaller First Step Amplitude and Different Ramp Slopes to Determine the <math>\dot{V}O_2</math> Mean Response Time and the Expression of the <math>\dot{V}O_2</math> Slow Component During Ramp-Incremental Tests</i>	Faculty of Kinesiology

## Thesis Examiner

2023	<b>PhD. Candidacy –Thomas Tripp</b>	Faculty of Kinesiology
2022	<b>PhD. Candidacy –Cody van Rassel</b>	Faculty of Kinesiology
2021	<b>PhD. Candidacy –Nada Abughazaleh</b>	Biomedical Engineering
2020	<b>PhD. Candidacy –Calaine Inglis</b>	Faculty of Kinesiology

## Thesis Neutral Chair

2024	<b>Seyed Saleh Hosseini</b> Doctorate exam	Bio-Medical Engineering
2024	<b>Micheal Baggagley</b> Doctorate exam	Faculty of Kinesiology
2024	<b>Christopher Banman</b> Doctorate exam	Faculty of Kinesiology
2024	<b>Alana Madrid</b> Masters of Kinesiology exam	Faculty of Kinesiology
2024	<b>Stacy Sick</b> Masters in Kinesiology exam	Faculty of Kinesiology
2023	<b>Calaine Inglis</b> Characterizing the effect of precise exercise intensity prescription on physiological adaptations to endurance training - an intensity domain-specific approach	Faculty of Kinesiology
2023	<b>Jenny Zhang</b> FOS field of study exam PhD. Candidacy	Faculty of Kinesiology
2020	<b>Anmol Mattu</b> Menstrual and Oral Contraceptive Phases Do Not Influence Submaximal and Maximal Responses to Exercise or Vascular Responsiveness at Rest	Faculty of Kinesiology

2021	<b>Anna Thacker</b> Peer to Peer Learning – Using Structured Video as a Tool to Improve Performance with Middle School Children	Faculty of Kinesiology
2021	<b>Austin Beever</b> The effects of simulated altitude on maximal and submaximal exercise	Faculty of Kinesiology
2021	<b>Hilkka Kontro</b> Exercise Health and Human Performance	Faculty of Kinesiology
2021	<b>Jenny Zhang</b> Neuro-muscular fatigue, cardio-respiratory, and perceptual responses are dependent on the amount of active muscle mass during exhaustive ramp incremental cycling	Faculty of Kinesiology
2022	<b>Kate Sales</b> Nutrition, Metabolism and Genetics	Faculty of Kinesiology
2020	<b>Nate Morries</b> Biomechanical and Morphological Deficits Following Anterior Cruciate Ligament Reconstruction with Hamstring Autografts: Implications for Rehabilitation and Return to Sport Testing	Faculty of Kinesiology
2020	<b>Thomas Tripp</b> Exercise Health and Human Performance	Faculty of Kinesiology

## Interviews, News Articles, & Podcasts

2024	<b>Future Tense: Technology is revolutionizing sport performance.</b> <a href="https://www.abc.net.au/listen/programs/futuretense/technology-future-of-sport-cheating-advancement-performance-peak/104040538">https://www.abc.net.au/listen/programs/futuretense/technology-future-of-sport-cheating-advancement-performance-peak/104040538</a>	Interview with Antony Funnell.
2024	<b>Calgary Herald: How to cold down when the heat is on.</b> <a href="https://calgaryherald.com/health/diet-fitness/how-to-cool-down-when-the-heat-is-on">https://calgaryherald.com/health/diet-fitness/how-to-cool-down-when-the-heat-is-on</a>	Interview on thermoregulation.
2024	<b>N.S. woman says ocean plunges offering her health benefits</b> <a href="https://globalnews.ca/video/10233505/n-s-woman-says-ocean-plunges-offering-her-health-benefits/">https://globalnews.ca/video/10233505/n-s-woman-says-ocean-plunges-offering-her-health-benefits/</a>	Global News
2024	<b>Cold Plunges for the new year</b> January 8th	CBC -Edmonton Live
2024	<b>West coast cold plunges</b> January 5th	CKNW 980 Vancouver with Scott Shantz
2024	<b>Cold Plunge fad or fact</b> January 4th	CHEB -Edmonton Live
2024	<b>Cold plunges are all the rage. But what does the science say?</b> <a href="https://www.cbc.ca/news/canada/cold-plunges-1.7072906">https://www.cbc.ca/news/canada/cold-plunges-1.7072906</a>	CBC news
2023	<b>Innovator/Educator –Dr. John Holash</b> <a href="https://youtu.be/ht2z2Jpy1Bc?si=M88XOgBj6ROXxCmF">https://youtu.be/ht2z2Jpy1Bc?si=M88XOgBj6ROXxCmF</a>	Taylor Institute for Teaching and Learning Video series
2023	<b>Are you ready to take the plunge? Experts weigh in on cold plunge benefits</b> <a href="https://globalnews.ca/the-curator/10042896/cold-plunge-benefits/">https://globalnews.ca/the-curator/10042896/cold-plunge-benefits/</a>	Global News
2023	<b>Best of Health Magazine:The Many Health Benefits of Nordic Skiing</b> <a href="https://www.besthealthmag.ca/article/nordic-skiing-cross-country-skiing?_cmp=stf">https://www.besthealthmag.ca/article/nordic-skiing-cross-country-skiing?_cmp=stf</a>	readers digest

2023	<b>Why some people are taking a wintry dip from the banks of the Bow River</b> <a href="https://t.co/yGpoTu8sB5">https://t.co/yGpoTu8sB5</a>	CBC News
2022	<b>UToday News Article: Course revamp is a hit with kinesiology students when they create their own fitness tests</b> <a href="https://news.ucalgary.ca/news/course-revamp-hit-kinesiology-students-when-they-create-their-own-fitness-tests">https://news.ucalgary.ca/news/course-revamp-hit-kinesiology-students-when-they-create-their-own-fitness-tests</a>	UToday
2022	<b>Council on Undergraduate Research: Course revamp is a hit with kinesiology students when they create their own fitness tests</b> <a href="https://www.cur.org/course-revamp-is-a-hit-with-kinesiology-students-when-they-create-their-own-fitness-tests/">https://www.cur.org/course-revamp-is-a-hit-with-kinesiology-students-when-they-create-their-own-fitness-tests/</a>	CUR.org
2022	<b>KQ Education Group: Course revamp is a hit with kinesiology students when they create their own fitness tests</b> <a href="https://kqeducationgroup.com/course-revamp-is-a-hit-with-kinesiology-students-when-they-create-their-own-fitness-tests-news/">https://kqeducationgroup.com/course-revamp-is-a-hit-with-kinesiology-students-when-they-create-their-own-fitness-tests-news/</a>	KQ Education Group
2021	<b>Spotify Podcast COVID Coffee Chats @ Ucalgary Episode 8: Creating a flipped Classroom with John Holash</b> <a href="https://open.spotify.com/episode/1yF8Ff4Zn62JHdBuZ1LB6q?si=0ead0ddf70f24661">https://open.spotify.com/episode/1yF8Ff4Zn62JHdBuZ1LB6q?si=0ead0ddf70f24661</a>	Spotify Podcast
2021	<b>Calgary Journal by Lee Reed: Connection between Mental Health and Exercise. Interview with Dr. John Holash</b>	Calgary Journal
2021	<b>UToday News Article: HealthyU team creates accessible, cost-friendly workouts catered to students' busy lives</b> <a href="https://www.ucalgary.ca/news/healthyu-team-creates-accessible-cost-friendly-workouts-catered-students-busy-lives">https://www.ucalgary.ca/news/healthyu-team-creates-accessible-cost-friendly-workouts-catered-students-busy-lives</a>	UToday

## Publications

## Conference presentation-Students

### 2024 McCaig Institute Summer Student Symposium

*Investigating active force and Sarcomeric protein content in gracilis muscle of children with cerebral palsy.*

Oral presentation

Presenter: **Latif Omerkhil**

Authors: Latif Omerkhil Faizan Syed, Venus Joumaa, Jason Howard, Tim Leonard, John Holash, & Walter Herzog.

### 2024 Annual Biomedical Engineering Undergraduate Summer Research Symposium

*Investigating active force and Sarcomeric protein content in gracilis muscle of children with cerebral palsy.*

Poster presentation

Presenter **Latif Omerkhil**

Authors: Latif Omerkhil Faizan Syed, Venus Joumaa, Jason Howard, Tim Leonard, John Holash, & Walter Herzog.

### 2024 Alberta Children's Hospital Research Institute Summer Symposium

*Investigating active force and Sarcomeric protein content in gracilis muscle of children with cerebral palsy.*

Oral Presentation

Presenter **Latif Omerkhil**

Authors: Latif Omerkhil Faizan Syed, Venus Joumaa, Jason Howard, Tim Leonard, John Holash, & Walter Herzog.

**2024 McCaig Institute Summer Student Symposium**

*Effects of freezing on the mechanical properties of cardiac muscle tissue.* Poster Presentation

Presenter: **Arianna Hu**

Authors: Arianna Hu, Venus Joumaa, John Holash & Walter Herzog.

**2024 Annual Biomedical Engineering Undergraduate Summer Research Symposium**

*Effects of freezing on the mechanical properties of cardiac muscle tissue. Effects of freezing on the mechanical properties of cardiac muscle tissue.* Poster Presentation

Presenter: **Arianna Hu**

Authors: Arianna Hu, Venus Joumaa, John Holash and Walter Herzog.

**2023 Bio-Medical Engineering Summer Student Symposium August 22**

*Investigating Active Force in Muscle Fibres from Children with Cerebral Palsy*

Presenter **Latif Omerkhil**

Authors Names: Latif Omerkhil, Venus Joumaa, Faizan Syed, John Holash and Walter Herzog

**2023 McCaig Institute summer Student Symposium**

*Investigating Active Force in Muscle Fibres from Children with Cerebral Palsy*

Presenter **Latif Omerkhil**

Authors Names: Latif Omerkhil, Venus Joumaa, Faizan Syed, John Holash and Walter Herzog

**2023 Bio-Medical Engineering Summer Student Symposium August 22**

*Effect of freezing on the mechanical properties of cardiac papillary muscles in rabbits*

Presenter: **Birteg Mangat**

Authors Names: Birtej Mangat, Venus Joumaa, John Holash, Walter Herzog

**2023 McCaig Institute summer Student Symposium**

*Effect of freezing on the mechanical properties of cardiac papillary muscles in rabbits*

Presenter: Birteg Mangat

Authors Names: Birtej Mangat, Venus Joumaa, John Holash, Walter Herzog

**2023 CASEM Canadian Society of sport and exercise medicine conference March 8-11th**

*An investigation of active force in skeletal muscle fibres from children with cerebral palsy*

Presenter: Gavin Thomas

Authors Names: Gavin K. Thomas, Venus A. Joumaa, PhD, Tim L. Leonard, PhD, Jason J. Howard, MD, Robert J. Holash, PhD, and Walter Herzog, PhD

**32nd International Association for Dance Medicine and Science Conference.**

*Validity of the High Intensity Dance Performance Fitness Test in Undergraduate Contemporary Dancers.*

Presenter: Allysan Lui

Supervisor: Mr. Jesse Oswald & Dr. John Holash

**16th Annual Biomedical Engineering Undergraduate Summer Research Symposium Active Force of Skinned Muscle Fibers in Children with Cerebral Palsy**

Presenter: Gavin Thomas

Supervisor: Dr. Venus Joumaa & Dr. John Holash

**McCaig Institute Summer Student Symposium 2022 Gavin Thomas - Investigating active force in skeletal muscle fibres from children with cerebral palsy**

Presenter: Gavin Thomas

Supervisor: Dr. Venus Joumaa & Dr. John Holash

**15th Annual Biomedical Engineering Undergraduate Summer Research Symposium:** *Investigating titin isoforms and content in the skeletal muscle of obese rats*

Presenter: Maleeka Malik

Supervisor: Dr. Venus Joumaa & Dr. John Holash

**22nd Alberta Biomedical Engineering Conference, Banff AB, Oct 22-23, 2021. Poster presentation**

*Effects of diet-induced obesity on titin isoforms and content in skeletal muscles of rats.*

Malik M, Joumaa V, Rios J, Holash J, Herzog W.

**CSEP 2021 Zooming into the future: Exercise science in the virtual age:** *Investigating physical activity intensity of virtual reality exergame in recreationally active young adults. Oral Presentation. Ashley Lorenz*

Supervisor Dr. John Holash

## Student Awards

**2023 McCaig Institute Summer Student Symposium 2023 -- Second place** Poster presentation: Latif Omberkhil: *Investigating Active Force in Muscle Fibres from Children with Cerebral Palsy*

**2022 IADMS International Association for Dance Medicine & and Science -- Student Research Award:**

Allysan Lui: *Validity of the high intensity dance performance fitness test in undergraduate contemporary dancers*

**2021 BME / Faculty of Science Summer Student Best Presentation Award: For Maleeka Malik: Titan isoform changes in an obesity feeding rat model.**

## Awards and Grants

**2024 Spark Grant McCaig Institute for bone and joint health grant.** Project: *ACTIVATION: Activity Capture To Investigate Voluntary AcTivity in Oncology and Normal populations* With Dr. Joel Kendal.

**Grant Value \$20,000** University of Calgary, Calgary AB.

**2024 Undergraduate Student Research Award (NSERC)–Arianna Hu** Project: *Investigating the effects of flash freezing on active force production of skinned muscle fibres.*

**Grant Value \$6000** University of Calgary, Calgary AB.

**2024 Science of Teaching and Learning (SOTL) grant.** Project: *Evaluating Enhanced Learning Outcomes: Developing a Multimedia Library with Educational Videos and Interactive Tools for Laboratory Training.* With Dr. Venus Joumaa.

**Grant Value \$40,000** University of Calgary, Calgary AB.

**2023 Faculty of Kinesiology COVID-Outstanding Achievement Award (OAA)**

University of Calgary, Calgary AB.

**2023 Undergraduate Student Research Award (NSERC)–Birtej Mangat Project: Investigating the Mechanical Properties of Cardiac Muscle in Obese Rats.**

**Grant Value \$6000** University of Calgary, Calgary AB.

**2022 PURE Studentship Grant: For Gavin Thomas** Project: *Investigating active force in skeletal muscle fibres from children with cerebral palsy.*

**Grant Value \$7000** University of Calgary, Calgary AB.

**2022 Faculty of Kinesiology Undergraduate Research Scholarship: For Thomas Manktelow** Project: *Objective Analysis of Double-Pole Timing in X-Country Skiing.*

**Grant Value \$7000** Faculty of Kinesiology

**2021 CURE Curriculum Based Undergraduate Research Experience** Project: *Redevelopment of Lab component of Kinesiology 375 so that final lab experiment is student enquiry driven.*

**Grant Value \$10,000** Taylor Institute for Teaching and Learning

**2021 BME /Faculty of Science Summer Student Best Presentation Award: For Maleeka Malik:** *Titan isoform changes in an obesity feeding rat model.*

**2019 Faculty of Kinesiology Startup Funds: For John Holash**

**Grant Value \$40000** University of Calgary, Calgary AB.

**2013 Young Investigator Award:** Best Presentation for: *The importance of structure on: calcium release, diffusion, and binding in a spatially realistic 3-D Sarcomere Model.* **Bio-medical Basis for Human Performance Across the Lifespan.**

University of Calgary, Calgary AB.

**2013 Outstanding Leadership (Staff) Award.** Roger Jackson Centre for Health and Wellness.

University of Calgary, Calgary AB.

**2012 Research Travel Grant** Faculty of Graduate Studies.

University of Calgary, Calgary AB.

**2011 Excellence in Research Grant** Faculty of Graduate Studies.

University of Calgary, Calgary AB.

**1998 Alberta Sports Research Grant** Development of electronic bike ergometer.

Government of Alberta.

**1996 Alberta Parks and Recreation Grant** Measuring muscle tone in children with Downs Syndrome.

University of Calgary, Calgary AB.

**1996 You make a difference Award** Blind bowling program.

Canadian National Institute for the Blind, Calgary AB.

**1994 Clean World Award,** International Association for Environmental Urban Living (GBH): for accomplishments running the Calgary River Clean-up 1994.

**1993 Mayors Environmental Stewardship Award,** Presented by Mayor Al Duer, *for organizing and running the Calgary River Clean-up 1993.* Mayoral Office, Calgary AB.

## Scientific and Professional Memberships

2024- **Alberta Children's Hospital Research Institute**

ACHRI

Current

2024- **McCaig Institute for Bone and Joint Health**

Associate member

Current

1997- **Canadian Society for Exercise Physiology**

CSEP

Current

2010- Current	<b>European Muscle Physiology Society</b>	EMC
2010- Current	<b>Canadian High Performance Computing Society</b>	HPC

## **Training & Learning**

2024	<b>Faculty of Kinesiology Teaching and Learning retreat</b>	Alt Hotel
2022-24	<b>Kaggle.com Computer programming and Data visualization programming</b>	online
2022	<b>TI 0746-002 Developing Your Teaching Dossier for Tenure and/or Promotion</b>	Taylor Institute
2022	<b>TI 0913-003 Creating a Flipped Lesson</b>	Taylor Institute
2022	<b>TI 0765-004 Intentional D2L Course Shell Design</b>	Taylor Institute
2022	<b>TI 0795-003 Online Student Assessment</b>	Taylor Institute
2022	<b>TI 0783-001 Undergraduate Research and Experiential Learning: Focusing Strategies for Courses &amp; Programs</b>	Taylor Institute
2022	<b>Academic Integrity in Online courses: Adapting during COVID (March 25)</b>	Taylor Institute
2021	<b>Learning to teach online</b>	Linda Learning
2021	<b>Data science essentials with R</b>	Linda Learning
2021	<b>Creating fun and Engaging Video Training: The Why</b>	Linda Learning
2022	<b>Learning Git and GitHub</b>	Linda Learning
2022	<b>Web Scraping in Python</b>	Linda Learning
2022	<b>Using Python with Excel</b>	Linda Learning
2022	<b>Excel Advanced formulas and Functions</b>	Linda Learning
2020	<b>Putting your course online (March 23)</b>	Taylor Institute
2020	<b>Increasing engagement with eLearning programs</b>	Linda Learning
2020	<b>eLearning essentials: Visual design</b>	Linda Learning
2020	<b>eLearning essentials: Instructional design</b>	Linda Learning
2020	<b>Developing and delivering online courses</b>	Taylor Institute
2019	<b>Teaching Days</b>	Taylor Institute
2019	<b>Data Science with Python</b>	Linda Learning
2018	<b>Spill Response Training</b>	Online, UofC
2018	<b>Bio-Safety Training</b>	Online, UofC
2017	<b>Chematix / Lab Manager</b>	Chematix, UofC

2007	<b>Animal Care and Handling</b>	Online, UofC
2018	<b>Occupational Health and Safety Orientation</b>	Online, UofC
2018	<b>Workplace Inspections Training</b>	Online, UofC
2016	<b>WHMIS 2015</b>	Online, UofC
2016	<b>Bio-Safety Program Training</b>	Online, UofC
2016	<b>Hazard Assessment Training</b>	Online, UofC

## Experience

2019- Current	<b>Professor (teaching): Exercise Physiology, Data Science, Computational Biology</b>	Kinesiology, UofC
	Teaching and Supervising Students in : Exercise Physiology, Data Science, Computational Biology. Developing and teaching the most current technique's for monitoring, recording, and understanding data relating to the physical health, wellness, and performance of peoples through out the lifespan.	
2013 - 2018	<b>Data Scientist / Systems Architect</b>	HPL, Kinesiology, UofC
	Design, develop and maintain expert computational solutions for research problems within the Human Performance Lab (HPL). Maintain computers, and research equipment used within the HPL. Design and development of custom software, algorithms, and for research equipment and special projects. Guest Lecturer for KNES: 201, 203, 615, 381, 485/685 courses	
2000 - 2013	<b>Senior Systems Analyst</b>	Kinesiology, UofC
	Technical lead, software designer, and analyst for Kinesiology IT. Led the development and implementation of numerous software projects, network designs, and multi-factor computer projects within Kinesiology co-supervising up-to 5 employees. Led the development of 3 versions of the Kinesiology websites. Led the development and roll out of the first interactive websites for the Olympic Oval, and Active Living (formerly Campus Recreation).	
1984 - 2010	<b>IT Security and Networking Consultant</b>	RJHolash Consulting
	Operated a private consulting firm which provided: computer technical support, security development, security testing, software development, application development, and general trouble/problem solving related to hardware, software, and operating systems. Clients included: Calgary Separate School Board, Calgary Regional Health Authority, Canadian National Institute for the Blind, and several private companies in Research Park. Employed up to 3 additional staff for various projects.	
1997 - 2000	<b>Systems Analyst</b>	Kinesiology, UofC
	Created the first Active Directory on the University of Calgary campus to solve ongoing computer issues within the Faculty of Kinesiology. Worked to merge Faculty of Kinesiology IT, Campus Recreation IT groups and developed a process to provide IT services to Canadian Sport Centre, Olympic Oval, and Athletic department, in order to provide unified and consistent IT services. Directly managed 2 employees.	

1996 - 1997	<b>Instructor / Research Assistant GAT</b> Lab supervisor & learning tutorials: Human Growth and Development: labs & occasional lectures. Tests and Measures & Exercise Physiology: labs and lectures for Environmental Physiology, and Adapted Physical Education; Developed/taught biomechanics modules for the Outdoor Pursuits rock-climbing course.	Kinesiology, UofC
1996 - 1996	<b>Mini University Course Instructor</b> Mini PhD program in Medicine, Camps for Kids. Developed course program and led activities.	Campus Recreation, UofC, Calgary
1991 - 1994	<b>Teaching &amp; Lab Assistant / Instructors Assistant</b> Lab supervisor / Tutorials led for: Human Anatomy, Human Growth and Development, Statistics, Test and Measures, Computer Usages in Sport, and numerous activities and outdoor pursuit courses. Coordinated research studies and programs in biomechanics for Dr. Jack Engsburg. Testing and coordinating subjects and performing initial analysis and statistical analysis of data.	Kinesiology, UofC
1994 - 1996	<b>Civilian Instructor Department of National Defence</b> Developed & Taught Survival Instructors, and Air Crew Survival courses and curriculum for the Department of National Defence. Programs included: orienteering, back country survival, camp skills, water craft safety, canoe tripping, leadership.	DND CFB Medley, AB
1993 - 1996	<b>Ski Instructor/Coach/Guide</b> Ski Instructor for children's day camps, school programs and private lessons. Taught Alpine, Nordic, and Telemark skiing techniques. Coached junior development programs for Alpine skiing.	Canada Olympic Park, Calgary
1992 - 1994	<b>Canoe Instructor/Coach/Guide</b> Instructed Canoe and kayaking skills and techniques for all manner of groups and school programs, day camps. Organized and led river, backcountry, and white water trips. Coached novice canoe and kayak programs.	Calgary Canoe Club, Calgary

## Certifications

2020	<b>RSO- Range Safety officer</b>	Canmore Nordic Centre
2016	<b>FIS X-Country Ski Official</b> cross country skiing international federation of sport, officials course	Canmore Nordic Centre
2013	<b>ADI Instruments System Management and Teaching basics</b> ADI System Management and Physiology Instruction modules	University of Saskatoon
2008	<b>ITIL Intermediate Level V3 certification</b> Standards for Computer Support	University of Calgary
2005	<b>Management Training</b> Franklin Covey Leadership	Franklin Covey Leadership
2004	<b>Microsoft Certified System Architect</b> MCSA	Continuing Education, UofC
2001	<b>Microsoft Certified Database Professional</b> MCDP	Continuing Education, UofC

1998	<b>Microsoft Certified Professional MCP</b>	Continuing Education, UofC
1994	<b>Canadian Association of Alpine Ski Instructors CSIA Level I</b>	Canada Olympic Park, WinSport
1994	<b>Canadian Association of Nordic Ski Instructors CASI Level I</b>	Canada Olympic Park, WinSport
1992	<b>Canadian Recreational Canoe Association CRCA Level V</b>	Calgary Canoe Club

## Conference Organization

2018 - 2019	<b>Invited Reviewer - International Society of Biomechanics ISB</b>	Calgary, Alberta
2006 - 2007	<b>Technology Coordinator, CSEP Conference Banff CSEP</b>	Banff, AB
1999 - 2000	<b>Technology Coordinator, CSEP Conference Canmore CSEP</b>	Canmore, AB
2002	<b>Presentation Assistant - World Congress of Biomechanics WCB</b>	Calgary, Alberta
1999	<b>Presentation Assistant - International Society of Biomechanics ISB</b>	Calgary, Alberta
1995 - 1996	<b>Technology Director Special Olympics Canada Winter Games Conference Special Olympics Calgary</b>	Calgary, AB

## Governing Boards-Volunteer

2019	<b>Team Captain, speaker ready room ISB/ASB, Calgary, AB</b>	Calgary, AB
2019	<b>Course Maintenance International Biathlon Union, World Cup at Canmore</b>	Canmore, AB
2003 - 2016	<b>Board Member, Canadian Internet Registration Authority CIRA</b>	Calgary, AB
1995 - 1996	<b>Technology Director, Special Olympics Canada Winter Games Special Olympics Calgary</b>	Calgary, AB
1996	<b>Program Coordinator, Special Olympics swimming Special Olympics</b>	Calgary, AB
1995 - 1996	<b>Program Facilitator, PREP program Preparation for Re-entry into Education Program, Grace Hospital</b>	Calgary, AB
1993 - 1996	<b>Environmental Director Calgary Canoe Club</b>	Calgary, AB
1994 - 1996	<b>Environmental Director Calgary Area Outdoor Council</b>	Calgary, AB

1993 - **Outdoor activity and environment advisor**  
1996 Mayor's Environmental Committee, City of Calgary

Calgary, AB

1992 - **Emergency Room Support and care**  
1995 Calgary General and Rocky View Hospitals

Calgary, AB

May 15, 2025

**John Holash**