

# Curriculum Vitae

## Doug W. Renshaw

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### Education

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Present	<b>Doctor of Philosophy – Kinesiology</b> University of Saskatchewan – Saskatoon, SK.
2014	<b>Master of Education – Health &amp; Human Performance</b> Fairmont State University– Fairmont, WV.
2011	<b>Bachelor of Science – Dual Major in Kinesiology &amp; Biology</b> University of Texas of the Permian Basin – Odessa, Tx.

### Published Manuscripts

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1. Andrushko, J. W., Gould, L., **Renshaw, D. W.**, Forrester, S., Kelly, M. E., Linassi, G., Mickleborough, M., Oates, A., Hunter, G., Borowsky, R., & Farthing, J. P. (2022). Ipsilesional Motor Cortex Activation with High-force Unimanual Handgrip Contractions of the Less-affected Limb in Participants with Stroke. *Neuroscience*, 483, 82–94. <https://doi.org/10.1016/j.neuroscience.2021.12.011>
2. Andrushko, J., Gould, L., **Renshaw, D.**, Ekstrand, C., Hortobágyi, T., Borowsky, R., & Farthing, J. (2021). High Force Unimanual Handgrip Contractions Increase Ipsilateral Sensorimotor Activation and Functional Connectivity. *Neuroscience*, 452, 111-125.
3. Unger, J., Andrushko, J. W\*, Oates, A., **Renshaw, D. W.**, Lanovaz, J. L., Farthing, J. P., Barss, T. S., Zehr, E. P., & Farthing, J. P. (2019). Modulation of the Hoffmann reflex in the tibialis anterior with a change in posture. *Physiological Reports*, 7(14), e14179, 1-14.
4. Duff, W. R. D., Andrushko, J. W., **Renshaw, D.W.**, Danielson, J., Farthing, J. P., Chilibeck, P., & Evans, C. (2018). The Impact of Pilates Therapy in Multiple Sclerosis: A randomized controlled trial. *International Journal of MS Care*, 20(2), 92-100.
5. Bice MR, Hanson NJ, **Renshaw D.W.**, Eldridge J, Reneau P, Powell D. Neuromuscular adaptations in elderly adults are task-specific during stepping and obstacle clearance tasks. *Int J Exerc Sci*. 2011; Vol 4 (1).
6. **Renshaw D.W.**, Bice MR, Cassidy C, Eldridge J, Powell D. A comparison of three computer-based methods of determining EMG signal amplitude. *Int J Exerc Sci*. 2010 Vol. 3 (1).
7. Ruano C, Chalambaga ET, **Renshaw D.W.**, Powell D. The effects of Tempur insoles on ground reaction forces and loading rates in running. *Int J Exerc Sci*. 2009; Vol. 2 (3).

### Published Abstracts (First Author Presented)

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1. **Renshaw, D.W.**, DeFreitas, J.M., Reese, S.M., MacLennan, R., Farthing, J.P. (2022). Physiological mirror activity during sustained and discrete maximal unilateral handgrip contractions. Presented at the 2022 ISEK Congress in Quebec City, Quebec

2. **Renshaw, D. W.**, Gould, L. A., Andrushko, J. W., Lanovaz, J. L., Borowsky, R., Farthing, J. P. (2018). Reproducibility of target force and fMRI activation during submaximal handgrip contractions. Presented at the Canadian Society for Exercise Physiology. *Applied Physiology, Nutrition and Metabolism*. 43(10), S43-S109

### Conference Proceedings (First Author Presented)

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1. Gould, L., Andrushko, J., **Renshaw, D.**, Borowsky, R., Farthing, J. (2018). Test-retest reproducibility of functional MRI motor cortex activation in a handgrip contraction paradigm. Presented at Banff Annual Seminar in Cognitive Science (BASICS).
2. Gould, L., Farthing, J., Forrester, S., **Renshaw, D.**, Andrushko, J., & Kelly, M. (2017). Neurobiological and behavioural outcomes following cross-education for hemiparesis post-stroke. Presented at the Banff Annual Seminar in Cognitive Science (BASICS).

### Non-Published Conference Abstracts (First Author Presented)

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1. Andrushko, J. W. Gould, L., **Renshaw, D. W.**, Ekstrand, C., Borowsky, R., & Farthing, J. P. Bilateral motor network activation during unilateral handgrip contractions is intensity dependent. *Organization for Human Brain Mapping*. Rome Italy, June 2019.
2. Gould, L. A., Andrushko, J. W., **Renshaw, D. W.**, Borowsky, R., Kelly, M., & Farthing, J. P. (2018). A neuroimaging study investigating cross-education for improving hemiparesis post-stroke. *Life and Health Sciences Research Expo*, University of Saskatchewan. May 2018.
3. Zirk, D. T., Andrushko, J. W., **Renshaw, D. W.**, Farthing, J. P. (2018). External pacing in motor learning and cross-education of skill. *Life and Health Sciences Research Exp*, University of Saskatchewan. May 2018.
4. Duff, W., Andrushko, J. W., **Renshaw, D. W.**, Farthing, J. P., Danielson, J., Evans, C., Chilibeck, P. (2018). The impact of pilates exercise in multiple sclerosis: A randomized controlled trial. *Life and Health Sciences Research Expo*, University of Saskatchewan. May 2018.
5. **Renshaw, D. W.**, Unger, J., Andrushko, J. W., Lanovaz, J. L., Farthing, J. P., Barss, T. S., Zehr, E. P., & Oates, A. (2016). The effects of postural threat on tibialis anterior H-reflex parameters. Fall Neuroscience Research Retreat, University of Saskatchewan. October 2016.

### Scholarships/Awards

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- **Global Engagement Scholarship – \$1,000, May 1<sup>st</sup> 2021**  
International Student and Study Abroad Center – University of Saskatchewan
- **Teacher Scholarship Doctoral Fellowship – \$21,000, September 1st, 2020 –August 2021**  
**College of Graduate and Postdoctoral Studies – University of Saskatchewan**
- **Ph.D. Dean’s Scholarship – \$66,000, January 4<sup>th</sup>, 2016 – January 4<sup>th</sup>, 2019** College of Graduate and Postdoctoral Studies – University of Saskatchewan

## Funding & Support

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- **Principal Investigator: “Neural mechanisms of muscle size and strength sparing”, ACSM NASA Space Physiology Grant:** \$5,180.22 Status: Awarded 4/1/2020. (Declined due to COVID-19).

## Professional Development

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- **Fundamental Neuroscience for Neuroimaging – Coursera**  
Johns Hopkins University, December, 2017  
Verification: [coursera.org/verify/4E2936FMSPZF](https://coursera.org/verify/4E2936FMSPZF)
- **Principles of fMRI 1 – Coursera**  
Johns Hopkins University & University of Colorado Boulder, March, 2018  
Verification: [coursera.org/verify/87ZEJDXK5L8G](https://coursera.org/verify/87ZEJDXK5L8G)

## Manuscript Peer-Review

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- **PeerJ**  
**2021: One manuscript**
- **Scandinavian Journal of Medicine & Science in Sports**  
**2020: One manuscript**
- **The International Journal of Exercise Science**  
**2007-2009: Three manuscripts**

## Teaching Experience

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- **Courses Taught**
  - **Kinesiology 121 (02): Functional Basis of Physical Activity**  
2021 Academic Year, Term 2 (total 1 section taught) University of Saskatchewan – Saskatoon, SK.
- **Guest Lectures**
  - **Kinesiology 225: Exercise Physiology**  
2019 Academic Year, Term 1 (Cross-Education & Neuromuscular phenomenon)  
University of Saskatchewan – Saskatoon, SK.  
Lectured for Carol Rogers PhD
  - **Kinesiology 225: Exercise Physiology**  
2017-18 Academic Year, Term 3 (Cross-Education & Neuromuscular phenomenon)

University of Saskatchewan – Saskatoon, SK.

Lectured for Shannon Forrester M.Sc.

- **Anatomy and Cell Biology 221: Anatomy**  
2018-19 Academic Year, Term 2 (Neuroanatomy)  
University of Saskatchewan – Saskatoon, SK.  
Lectured for Saija Kontuleinen PhD
- **Anatomy and Cell Biology 221: Anatomy**  
2017-18 Academic Year, Term 2 (Neuroanatomy)  
University of Saskatchewan – Saskatoon, SK.  
Lectured for Saija Kontuleinen PhD

- **Teaching Assistantships**

- **Kinesiology 322.1: Motor Learning & Control**  
2022 Academic Year, Term 2 (total 4 sections taught)  
University of Saskatchewan – Saskatoon, SK.  
Assisted Alison Oates PhD in Spring
- **Kinesiology 225.1: Introductory Exercise Physiology Laboratory**  
2021-2022 Academic Year, Terms 1 & 2 (total 8 sections taught)  
University of Saskatchewan – Saskatoon, SK.  
Assisted Phil Chilibeck PhD in Fall and Spring
- **Kinesiology 225.1: Introductory Exercise Physiology Laboratory**  
2019-20 Academic Year, Terms 1 & 2 (total 7 sections taught)  
University of Saskatchewan – Saskatoon, SK.  
Assisted Carol Rogers PhD in Fall  
Assisted Phil Chilibeck PhD in Spring
- **Kinesiology 225.1: Introductory Exercise Physiology Laboratory**  
2018-19 Academic Year, Term 1 (total 3 sections taught)  
University of Saskatchewan – Saskatoon, SK.  
Assisted Carol Rogers PhD
- **Kinesiology 225.1: Introductory Exercise Physiology Laboratory**  
2017-18 Academic Year, Term 1 (total 2 sections taught)  
University of Saskatchewan – Saskatoon, SK.  
Assisted Phil Chilibeck PhD in Spring
- **Kinesiology 121.1: Functional Basis of Physical Activity Laboratory**  
2017-18 Academic Year, Term 1 (total 1 section taught)  
University of Saskatchewan – Saskatoon, SK.  
Assisted Shannon Forrester M.Sc

## Volunteer Activities and Community Outreach

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- **Facilitator and Teacher – Verna J. Kirkness Science and Engineering Education Program 2018**  
Introducing Kinesiology and Neuromuscular Physiology to First Nations, Métis and Inuit High School Students  
May 9<sup>th</sup>, 2018.  
University of Saskatchewan – Saskatoon, SK.
- **Facilitator and Teacher - National Biomechanics Day**  
2017  
University of Saskatchewan – Saskatoon, SK.
- **Teacher, Discovery Day, 2016**  
November 4<sup>th</sup>, 2016  
University of Saskatchewan – Saskatoon, SK.
- **Presidential Volunteer Service Award**  
Awarded for performing 1,000 hours of community service.  
May 2014  
Fairmont State University – Fairmont, WV
- **Risk Management Chair – Phi Sigma Phi National Fraternity**  
2013-2014  
Fairmont State University – Fairmont, WV
- **Active member - Phi Sigma Phi National Fraternity**  
2012-2014  
Fairmont State University – Fairmont, WV
- **Volunteer - Rays of Hope Children’s Home,**  
Working with disadvantaged children as a mentor and play-therapy administrator  
2009-2010  
Odessa, TX

## Course Development

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- **Redevelopment of Lecture Content for Clarity**  
**Kinesiology 121 (02): Functional Basis of Physical Activity**  
2020 -2021 Academic Year, Term 1 (development) Term 2 (Delivery)  
University of Saskatchewan – Saskatoon, SK.  
Supervised by Shannon Forrester M.Sc.

## Affiliations

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- **Visiting Scholar/Researcher, 2021-2022**  
Oklahoma State University
- **Student Member, 2022**  
ISEK (International Society of Electromyography and Kinesiology)
- **Student Member, 2022**  
CSACSM (Central States American College of Sports Medicine)

- **Student Member, 2017 - 2019**  
ACSM (American college of Sports Medicine)
- **Student Member, 2017 - 2018**  
CSEP (Canadian Society for Exercise Physiology)
- **Student Member, 2013 - 2014**  
MARC (Mid Atlantic Regional Chapter) ACSM
- **Student Member,**  
SCASB (South Central American Society of Biomechanics)

## **Mentorship & Unofficial Co-Supervision of Undergraduate Honors Students**

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- **Annika Streilein – B.Sc. Kinesiology Honors, 2018/2019**  
University of Saskatchewan – Saskatoon, SK.
- **Dakota Zirk – B.Sc. Psychology Honors, 2017/2018**  
University of Saskatchewan – Saskatoon, SK

## **Certificates**

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- **Tri-Council policy statement: Ethical conduct for research involving humans** Panel on Research Ethics – Course on Research Ethics (TCPS 2: CORE)
- **Standard first aid with CPR-C & AED**  
Canadian Red Cross

