

# SEMINAR SERIES

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## MECHANICS OF LIGAMENT AND CAPSULE TO JOINT FUNCTION UNDER NORMAL AND INJURY STATES

Featuring Dr. Hafizur Rahman  
University of Nebraska at Omaha

March 15, 2019

12:00 - 1:15 pm | H&K112

Parking Available in Lot T

### ABOUT DR. RAHMAN

Hafizur Rahman earned his Ph.D. degree from the Department of Mechanical Science and Engineering at University of Illinois at Urbana-Champaign in 2018 and MS degree in ocean engineering from Florida Atlantic University in 2013. His Ph.D. dissertation focused on understanding the effects of rotator cuff tears on shoulder kinematics and glenohumeral capsule strain. He is currently working exoskeleton device. as a postdoctoral research associate in the Department of Biomechanics at University of Nebraska at Omaha. His current research includes on improving the functional outcomes for patients with peripheral artery disease by using exoskeleton device.

### LEARNING OBJECTIVES

- Investigates the effects of ligament stiffness on glenohumeral kinematics and cartilage pressure
- Discuss the sensitivity of ligament structural variation on material properties and modeling
- Describe the ligament local surface strain distribution before and after damage
- Identify how the strain distribution in glenohumeral capsule changes after rotator cuff tear

The presenter Hafizur Rahman, PhD has no financial conflict of interest to disclose. Members of the planning committee, Nick Stergiou, Ph.D., Jeffrey Kaipust, M.S., Angela Collins, M.A., Laura Rotert, B.S., and Jackie Farley, CPP have no financial conflict of interest to disclose.

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