

Resa M. Chandler, Ph.D.
Assistant Professor of Health and Physical Education
Western Carolina University

Education

Ph.D., University of Texas at Austin, 1997, Exercise Physiology
M.A., University of Texas at Austin, 1992, Exercise Physiology
M.S., University of North Carolina at Charlotte, 1989, Biology
B.S., University of North Carolina at Charlotte, 1985, Biology

Professional Experience – Academic

Western Carolina Univ. Cullowhee, NC 2016-present	School of Teaching and Learning Assistant Professor of Health and Physical Education Anatomy and Kinesiology, Exercise Physiology, Biomechanics, Nutrition, Coaching
Brevard College Brevard, NC 2007-2016	Division of Science and Mathematics Exercise Science Major Coordinator Associate Professor of Exercise Science: Medical Physiology, Advanced Anatomy and Kinesiology, Exercise Physiology, Biomechanics, Nutrition
Columbia Basin College Pasco, WA 2005-2007	Department of Math and Science Professor of Biology: Human Anatomy and Physiology, Exercise Physiology, Cell Biology, Nutrition (Dist. Learning), Bioethics (DL)
Xavier University School of Medicine Bonaire, N.A. 2004-2005	Department of Medical Sciences Associate Professor of Medicine: Premedical Biology, Human Physiology, Biochemistry, Cell Biology, Medical Histology
State Univ. of New York Brockport, NY Jan-Aug 2004	Department of Physical Education and Sport Visiting Professor of Exercise Physiology: Exercise Physiology, Research Methods
Austin Community College Austin, TX 1991-98, 2003-04	Department of Biology Adjunct Faculty: Anatomy and Physiology, Cell Biology
Univ. of Texas at Austin Austin, TX 1991-1998	Department of Kinesiology and Health Education Adjunct Faculty and Teaching Assistant: Ergogenic Aids, Exercise Physiology Laboratory, Human Anatomy and Physiology Laboratory, various activity courses
Univ. of Texas at Austin Austin, TX 1992-1996	Department of Women's Athletics Academic Mentor and Tutor

Queens University Charlotte, NC 1988-1989	Department of Biology Adjunct Faculty: Human Anatomy and Physiology
Univ. of North Carolina Charlotte, NC 1985-1989	Department of Biology Teaching Assistant: Histology Laboratory, Biology Laboratory, Biology Laboratory Manager
Central Piedmont Com.Coll. Charlotte, NC 1985-1986	Department of Biology Adjunct Faculty: Adult Education, Science Instructor

Professional Experience – Administrative

Exercise Science Major Coordinator (2007-2016, Brevard College)

- Student Professional Internship supervisor
- Reorganized Exercise Science Major increasing graduate school admission
- Supervised exercise science faculty
- Coordinated and led monthly faculty meetings
- Chaired and sat on faculty search committees
- Collected student learning outcome data and prepared yearly major assessment reports
- Organized student capstone experience events

NCAA Faculty Athletic Representative (2014-2016, Brevard College)

- Worked with the NCAA and FARs from other educational institutions regarding policies, conference play, student athlete scholarships, academic honors for student athletes
- Worked closely with the registrar to assess eligibility of all student athletes
- Served as the liaison among student athletes, faculty, coaches and the Athletic Director
- Assembled faculty and staff ad hoc committees to hear student athlete appeals
- Prepared a yearly report informing the President of the actions of the FAR office
- Organized strategic planning meetings with the President and the Athletic Director to address
- athletic concerns across campus

SACS 5-year Assessment Committee Member (2014-2016, Brevard College)

- Worked with the Vice President of Academic Affairs collecting data, writing sections of the SACS 5-year Accreditation report

Graduate Faculty (2004, SUNY Brockport)

- Supervised education graduate theses

Dean of Premedical Studies (2005)

- Designed the one-year program to address scientific deficiencies in accepted students with non-scientific undergraduate majors
- Conducted evaluations of faculty teaching courses in this program (chemistry, statistics, physics, biology)

Dean of Student Affairs (2004 Xavier University School of Medicine)

- Writing and implementing policies on student conduct

- Assembled faculty to rule on honor violations

Professional Experience – Health and Fitness

Fit4Diabetes New York City, NY 2008-2010	Diabetes Consultant and Exercise Specialist
OutFitness Austin, TX 1995-2005	Owner, Developer, Trainer of The Nth Degree Fitness Program, Personal Trainer

Shared Governance

Western Carolina University

CEAP Curriculum Committee, STL Representative (2017-present), Co-chair (2019-present)
CEAP Strategic Plan Update Ad Hoc Committee (2018-2019)
Chief Faculty Marshal (2018-2019)
Commencement Committee Faculty Marshal (2017-2019)
Infrastructure Advisory Committee, CEAP Representative (2017-2018)
Peer Review of Teaching Materials, Health & Physical Edu (2016-2017), Chair (2018-2019)
School of Teaching and Learning Social Committee (2016-17)

Brevard College

NCAA Faculty Athletic Representative (2014- 2016)
Athletic and Compliance Committee: Chair (2013- 2014), Member (2014-2016)
Faculty Council: Chair (2015-16), Member (2014 – 2015)
Retention Performance Management® Committee: Co-Chair (2015-2016)
So. Assoc. of Colleges & Schools (SACS) 5-Year Assessment Committee (2014- 2016)
Academic Affairs Committee: Chair (2007-2016)
Assistant Professor of Exercise Science Search Committee: Chair (2015)
Assistant Professor of Biology Search Committee: Member (2010, 2014)
Mid-tenure Review Committees: (2012, 2014)
Facilities High Impact and Retention Committee (2013- present)
Curriculum Development and Assessment Committee (2008-2013)
Academic and Informational Technology Committee (2007-2008)
Appalachian Trail Course Development Committee (2008)
Voice of Rivers Advisory Committee (2008)

Columbia Basin College

Faculty Senate: Chair
Faculty Professional Development: Chair
New Faculty Integration Committee: Chair
Informational Services Liaison

Xavier University School of Medicine

Academic Progression Committee
Student Grievance Committee
Faculty Advancement Committee
Advisor for Xavier Student Government Association

SUNY Brockport
Ad Hoc Committee for the restructuring of the department curriculum

Organizations/Offices/Certifications

National Association for Kinesiology in Higher Education	American Council on Exercise Certified Personal Trainer
SHAPE	Association of Biology Graduate Students/vice president
CitiTraining for Human Subjects	American Society of Zoologists
American Red Cross Adult CPR/AED	North Carolina Academy of Science
American College of Sports Medicine	Phi Beta Delta
Exercise Science Major Coordinator	Southeastern Electron Microscopic Society
Sigma Xi Scientific Research Society	Xavier University Student Government Association
Beta Beta Beta Biological Society	
Human Anatomy and Physiology Society	
American College of Sports Medicine	

Honors/Grants

- NAKHE Hellison Interdisciplinary Grant Recipient, 2019
- Health Educators Academy Member, 2019-2020
- WCU Provost Internal Support Grant Recipient, 2017
- Brevard College SGA Outstanding Faculty of the Year, 2011
- Brevard College SGA Outstanding Faculty of the Year: Math and Science Division, 2010
- Brevard College Honorary Athletic Varsity Letter, 2010, 2011, 2013
- Received the Exceptional Faculty Award honorarium for \$7350 at Columbia Basin College to write a new Anatomy and Physiology Lab Manual, 2006
- Chandler, et al. (1994) acknowledged as an “outstanding contribution to the field of sports nutrition” by the Research Digest Editors of the International Journal of Sport Nutrition, 1994.
- Received and grant for \$80,000 from Shaklee, Inc. to research the effects of Shaklee supplements on muscle mass and strength.
- Received a supplemental grant (\$500) from the Sigma Xi Society for continuation of the research on the shell granules of *Convoluta pulchra*.
- Associate member of Sigma Xi society, inducted 1987.
- Selected to compete in the graduate research competition at the annual conference of the American Society of Zoologists.

Peer Review Publications

Meltzer, N.W., A.J. Bobilya, W.B. Faircloth, D. Mitten, & **R.M. Chandler** (2018). The Effect of an Outdoor Orientation Program on Participants' Biophilic Expressions. *Journal of Outdoor and Environmental Education* 21(2): 187-205. <https://doi.org/10.1007/s42322-018-0013-x>

Chandler, R.M. & Stringer, A.J. (2019) A comprehensive exploration into utilizing high intensity interval training (HIIT) in physical education classes. Accepted, *Journal of Physical Education, Recreation and Dance*. In press.

Wells, G. M., **Chandler, R.M.** Watterson, T. A., Friaud, V., & Beaudet, R. (2019) Kinesiology Gets Moving! The NAKHE Leadership Development Workshop Goes Outside. *International Journal of Kinesiology in Higher Education*. In press.

Meltzer, N.W., Bobilya, A.J., Faircloth, W.B., & **Chandler, R.M.** (2019) An investigation of moderators of change and the influence of the instructor on outdoor orientation program participants' biophilic expressions. *Journal of Outdoor and Environmental Education*. In press.

Chandler, R.M., Maddox, G.M., & Singleton, D. The health and fitness impacts of university health classes on college students. *Quest*. Submitted October, 2019.

Chandler, R.M., & Menickelli, J. Underestimation of Perceived Exertion During Maximal Graded Testing in Trained Runners. *International Journal of Physical Education Fitness and Sports*. Submitted October 2019.

Grant, K.E., **R.M. Chandler**, A.L. Castle, & J.L. Ivy (1997). Chromium and exercise training: effect on obese women. *Med. Sci. Sports Exerc.* **29**: 992-998.

Ivy, J.L., M.Y. Cortez, **R.M. Chandler**, H.K. Byrne, & R.H. Miller (1994). Effects of pyruvate and pyruvalglycine on the metabolism and insulin resistance of obese Zucker rats. *Am. J. Clin. Nutr.* **59**: 331-337.

Chandler, R.M., Byrne, H.K., Patterson, J.G., & Ivy, J.L. (1994). Dietary supplements affect the anabolic hormones after weight-lifting exercise. *J. Appl. Physiol.* **76**: 839-845.

Chandler, R.M., Thomas, M.B., & Smith, III, J.P.S. (1992). The role of shell granules and accessory cells in eggshell formation in *Convoluta pulchra* (Turbellaria, Acoela). *Biol. Bull.* **182**: 54-65.

Smith, III, J.P.S., Thomas, M.B., **Chandler, R.M.**, & Zane, S.F. (1988) Granular inclusions in the oocytes of *Convoluta* sp., *Nemertoderma* sp., and *Nemertinoidea elongates* (Turbellaria, Acoelomorpha). The 4th International Symposium on the Biology of the Turbellaria. Fortschr. Zool.

Thomas, M.B., Smith, III, J.P.S., **Chandler, R.M.**, & Barker, A. (1988). Eggshell granules in some primitive Turbellaria: more evidence of polyphyly? *Am. Zool.* **25**: 91A (abstract).

Chandler, R.M., Smith, III, J.P.S., & Thomas, M.B. (1988). A morphometric analysis of egg shell formation in *Convoluta* sp. *J. Elisha Mitchell Sci. Soc.* **104**: 190 (abstract).

Chandler, R.M. & Thomas, M.B. (1987). An ultrastructural examination of late oogenesis and the late egg of *Convoluta* sp. *Am. Zool.* **27**: 121A (abstract).

Chandler, R.M. & Thomas, M.B. (1986). An ultrastructure of the oocyte of *Convoluta* sp. *J. Elisha Mitchell Sci. Soc.* **102**: 179-180.

Peer-Reviewed Presentations

Chandler, R. M. & Stringer, A. J. Cardiometabolic Risk Factors Responses to Supplemental High Intensity Exercise in Middle School Children. 21st International Conference on Physical Education and Sport Science, Venice, Italy. April 2019.

Stringer, A. J. & **Chandler, R. M.** Considerations for the Use of High Intensity Interval Training in Secondary Physical Education. 21st International Conference on Physical Education and Sport Science, Venice, Italy. April 2019.

Chandler, R. M. Launching micro credentialing/badges in a midsized state university. NAKHE Annual Conference, Savannah, GA. January 2019.

Chandler, R. M. & Stringer, A. J. Can high intensity interval training make a positive difference to children in an underperforming school? NAKHE Annual Conference, Savannah, GA. January 2019.

Stringer, A. J. & **Chandler, R. M.** So many desired outcomes - so little time! What high intensity interval training brings to secondary PE Programs. NAKHE Annual Conference, Savannah, GA. January 2019.

Beaudet, R. J., Wells, G. M., & **Chandler, R. M.**, Keep my health class! Why universities need to require academic health/wellness courses. NAKHE Annual Conference, Savannah, GA. January 2019.

Watterson, T. A., Wells, G. M., **Chandler, R. M.**, & Beaudet, R. J., NAKHE Leadership Development Workshop, NAKHE, Northern Arizona University, Flagstaff, AZ. August 2018.

Chandler, R. M. & Stringer, A.J. Links in the Chain: Bringing Lab to Life. NAKHE, Phoenix, AZ. January 2018.

Stringer, A.J. & **Chandler, R.M.**. What to do about students exhibiting an unconscious bias? Considerations for student screening prior to practicums and internships. NAKHE January 2018.

Chandler, R.M. & Stringer, A.J. Exercise Physiology Check Up: Safe & Effective Fitness. SHAPE, March 2017.

Chandler, R.M. & Stringer, A.J. Do This, Not That: Exercise Physiology Update for Fitness Design. NC AAHPERD, November 2016.

Chandler, R.M. The ultrastructure and probable role of eggshell formation of the granules of the oocyte of the acoel turbellarian *Convoluta* "pulchra". Master's thesis presentation. University of North Carolina at Charlotte, Charlotte, North Carolina. 1988.

Chandler, R.M. A morphometric analysis of egg shell formation in *Convoluta* sp. North Carolina Academy of Science, Charlotte, NC. 1988.

Chandler, R.M., & Thomas, M.B. An ultrastructural examination of late oogenesis and of the laid egg of *Convoluta* sp. Graduate Research Competition, American Society of Zoologists, Baltimore, Maryland. 1987.

Smith, III, J.P.S., **Chandler, R.M.**, & Barker, A. Eggshell granules in some primitive Turbellaria: more evidence of polyphyly? American Society of Zoologists, Baltimore, Maryland. 1986.

Chandler, R.M., & Thomas, M.B. The ultrastructure of the oocyte of *Convoluta pulchra*. North Carolina Academy of Science, Wilmington, North Carolina. 1986.

Nonpeer-Reviewed Presentations

Chandler, R.M. The Use of Illegal Substances. Presented to the Brevard College Student Athletes, NCAA Compliance, 2009.

Chandler, R.M. The Female Athlete Triad. Presented to the Brevard College community during National Eating Disorder Awareness Week, 2009.

Chandler, R.M. The Ergogenic Effects of Creatine Supplementation. Presented to Sigma Xi: UNCA Chapter, 2007.

Chandler, R.M. The effects of progressive resistance training and nutritional supplements on select aspects of endocrinology, muscle physiology, and coronary risk factors. Dissertation defense presentation. University of Texas at Austin, Austin, Texas. 1997.

Chandler, R.M. Nutritive supplementation affects the anabolic hormonal response after weightlifting. Master's thesis presentation. University of Texas at Austin, Austin, Texas. 1992.

Dissertation Research Summary

A description of my academic background begins with earning an exercise physiology Ph.D. in 1997 from the University of Texas at Austin in a leading exercise and carbohydrate metabolism and diabetes research laboratory. My dissertation was a longitudinal research study of 40 college-aged males during which I examined the effect of supplements (carbohydrates and proteins) and resistance training on exercise endocrinology, strength, body composition, muscle physiology, and coronary risk factors. As a result of the multi-faceted nature of the study, I have an expertise in numerous physiological concepts and their application to human performance. Not only was I responsible for the research, but I also supervised undergraduate honors and master's students that were involved with the study. I worked on other research projects involving obese women and chromium, glycogen resynthesis in cyclists, resting metabolism and resistance training, and feeding and thyroid hormones. My research interests lie in ergogenic aids, sports nutrition, exercise endocrinology (as it relates to diabetes), and exercise muscle physiology in strength and novice athletes.