

June 16<sup>th</sup>, 2025

## Dear Dr. Silvia Rossbach,

I am deeply honored to receive the Darrell R. Latva Biological Sciences Teaching Excellence Award, established to recognize instructors who create truly effective classroom experiences for our students here in the Department of Biological Sciences at Western Michigan University. I appreciate the department's confidence in my work and welcome the opportunity to reflect on the past year.

My teaching begins with the conviction that *learning is about people and relationships*. When students feel respected and safe, they are willing to stretch, stumble, and grow. To build that trust I weave brief, structured peer-discussions into lecture courses and labs—whether in a 150+ seat anatomy lecture or a smaller biological sciences lab. These micro-conversations break complex ideas into digestible pieces, let students test new concepts against one another's frameworks, and give me real-time insight into misconceptions that need correction. I believe this approach not only helps them learn in the moment but also to become better consumers of information throughout their life and careers.

Across the four courses I taught this year—

- BIOS 1120 Principles of Biology
- BIOS 1910 Introduction to Human Biology & Anatomy
- BIOS 2110 Human Anatomy
- BIOS 1100 Biological Sciences Laboratory

I aimed to turn content into community and build an atmosphere of exploration. In BIOS 1910: Introduction to Human Biology and Anatomy & BIOS 2110: Human Anatomy, for example, I have implemented the use of virtual and augmented reality (AV/AR) to provide students with a more immersive way to discover anatomical features. With its use being newer to the classroom I have launched a collaboration with the Mallison Institute for Science Education, in which a graduate student from MISE will study our instruction and structural design regarding student work in VR/AR space.

In BIOS 1120 I began many lectures with a short video or case vignette that tied the day's concept to everyday life, priming them for the questions later pursued in small-group discussion. This course is oriented towards non-STEM majors and covers WMU essential studies. Many discussions centered on getting students to think critically and bridge lecture topics to the larger world around them. For example, when I introduce the concept of homeostasis (how life maintains dynamic balance), I ask students to define in small groups what aging is, and if they think it to be a *natural process* or not. During this discussion students almost always get caught up with the phrasing *natural process* and in turn we are able to widen the scope of discussion to communication about human health how about to spot pseudoscientific arguments where the *appeal to nature fallacy* is so often seen.

Experiential and inquiry-based learning helps students to not just memorize but think procedurally and conceptually about topics. BIOS 1100 is a stand-alone lab course that provides students with hands-on activities as they walk through foundations of biology, such as the chemistry of life, evolution, and form

leading to function. While seeing an experiment unfold in real time or dissecting a preserved specimen is fun and memorable, it can be hard for students to think about concepts beyond that which is in front of their eyes. This is why I am working to implement a semester long project where students will work in small groups to explore current scientific research and then communicate what they learn to their peers. This project is intended to help students step into the scientist shoes to build an appreciation of science that will promote critically evaluation when presented with scientific or pseudoscientific claims in their everyday life.

I am excited for the coming academic year, not only to return to the courses described above but also to expand into areas such as Human Physiology. I will begin running BIOS 2400: Human Physiology, a course for non-biology majors, most of whom are pre-health allied health majors. In order to better prepare our rising health professionals for their careers I am collaborating with my colleague Dr. Andrew Thompson to build an Undergraduate Course-based Research Experience (CURE) in BIOS 2400 labs. Stemming from work done in Dr. Thompsons lab, students will collect novel data on Killifish heart rates and then be challenged to think about how their results can further biomedical inquiry by bridging the basic and applied sciences.

Thank you for promoting a department culture that values this holistic, inquiry-based approach. The Darrell R. Latva Biological Sciences Teaching Effectiveness Award is both a humbling recognition and a charge to keep refining my craft. I look forward to collaborating with colleagues and students to expand evidence-based practices that empower every Bronco to learn new things, question what they hear and see in a rational way, and ultimately thrive in life.

Sincerely,

Luke J. Kinsey Ph.D.

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