

Curriculum vitae

William B. Zundel, MS, MLS(ASCP)^{CM}, SBB

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Demographics

Name: William B. Zundel, MS, MLS (ASCP)^{CM}, SBB

Present Position: Associate Teaching Professor; Director – Medical Laboratory Sciences program (June 2015)

Date of Appointment: July 1, 2009

College: Life Sciences College

Department/Program: Microbiology and Molecular Biology/Medical Laboratory Sciences

Terminal degree in your field: Yes

Education:

<u>Institution</u>	<u>Discipline</u>	<u>Degree Earned</u>	<u>Dates</u>
University of Houston, Clear Lake	Instructional Technology	Master of Science	08/01
University of Texas Medical Branch	Specialist in Blood Banking	Professional Certification	02/96
Brigham Young University	Medical Technology	Bachelor of Science	08/85

Credentials

- Associate Teaching Professor (2009), Professional Continuing Faculty Status (2013), Medical Laboratory Sciences Program Director (2015), Brigham Young University.
- Current national professional Certification with American Society of Clinical Laboratory Sciences (ASCLS), American Association of Blood Banks (AABB) and American Society of Clinical Pathology (ASCP). Specialist in Blood Banking (SBB) Technology Certification with ASCP.
- Promotion to Tenured Faculty May 2008, Weber State University
- Promotion to Associate Professor of Clinical Laboratory Sciences May 2005, Weber State University
- Tenure-track position as Assistant Professor of Clinical Laboratory Sciences Weber State University began July 2001.
- Master of Science Degree in Instructional Technology, University of Houston, Clear Lake, 2001.
- Lecturer in Clinical Laboratory Sciences Program at University of Texas Medical Branch, Galveston Texas 1996 – 2001.

Teaching

- Following the MLS Curriculum change delivery in 2018 – 2019 the MLS faculty observed that the Winter semester was quite rigorous (MMBio 407, 412, 409, 410). We decided to move MMBio 407 from the Winter semester to the Fall semester and MMBio 411 from Fall to Winter, which is happening right now. We mapped out the change recognizing that Dr. Davis and Dr. Cordner would have to teach their courses an additional time to make the move. I met with Kevin Johnson and we made all the changes in Kuali. So far, so good.
- We also observed that MMBio 405 (2.0 Credit Hours) didn't need that much time to achieve the purpose of the course and that MMBio 407 needed another credit hour. We submitted a curriculum change to reduce MMBio 405 from 2.0 Cr. Hrs to 1.0 and increase MMBio 407 from 4.0 Cr. Hrs. to 5.0 Cr. Hrs. The proposal was approved by both the Department and College curriculum reviews. The latest communication from the MMBio Department Curriculum committee (Scott Weber) was that it passed at the University level, too.
- For 2018 we received approval for an overall curriculum change. The only courses not affected were MMBio 418, 419, 407. With much help from my peers in the MLS program, Dr. Mary Davis and Dr. Ryan Cordner we restructured the MLS program from mainly Term courses to full Semester courses. The Fall 2018 Semester was quite rigorous with three new course preps.
- I currently teach:
 1. MMBio 406, Clinical Chemistry: This course is a lecture and lab course (2 Lecture hours and 2 Lab hours). It covers all of the material from MMBio 422 and 424, except those concepts being covered in MMBio 405: Carbohydrates, lipids, liver function, proteins, enzymes, automation and QC. It also covers electrolytes, blood acid/base balance, renal physiology, and endocrinology from MMBio 423 and 425. This course will be taught fall semesters on Tuesdays and Thursdays from 12:00 pm to 3:50 pm. It is team taught with Dr. Cordner.
 2. MMBio 412, Immunohematology: This is a lecture and lab course (2 Lecture hours and 2 Lab hours). It covers all of the material from MMBio 393 and 395, except coagulation theory. This course is taught winter semester on Tuesdays and Thursdays from 12:00 pm to 3:50 pm.
 3. MMBio 491: Concept Applications in Laboratory Medicine. Case presentations of various medical disorders correlating to Chemistry, Microbiology, Immunohematology and Hematology. This course is now taught both Fall and Winter semesters.
 4. NURS 505 - IPE for Health Professions: Interprofessional Education Collaborative for Health Professions.
 5. MMBio 405, MLS Laboratory Operations: This course teaches concepts in laboratory safety, basic laboratory principles, phlebotomy, urinalysis, renal function, lab math, QA/QC, educational principles and laboratory management. These concepts were originally contained in MMBio 422, 423, 424, and 425. This course will be taught both fall and winter semesters on Fridays from 8:00 am to 11:50 am to students in their first semester of the MLS program.

Teaching Experience

Institution	Dates	Position and description
Brigham Young University	07/09 to present	Professional Faculty, Associate Teaching Professor in College of Life Sciences, Microbiology and Molecular Biology Department, Medical Laboratory Sciences program. Full teaching load that includes teaching courses in Baccalaureate Degree program within the Medical Laboratory Sciences. I teach four courses (MMBio 405, 406, 412 and 491) meaning that I am responsible for updating and monitoring the overall progress of these 4 courses, in addition to updating the syllabi and creating new course materials where needed. MMBio 221 in Summer term for both 2013 and 2014. Summer 2015 I become the Program Director of the Medical Laboratory Sciences program in the MMBio Department. This increased my administrative responsibilities and also added to my teaching responsibilities. I also taught Rel A 121 (First Half of the Book of Mormon) Fall 2015. This was a new course prep. Teaching MMBio 102 Winter 2017.
Weber State University	07/01 to 04/08	Associate Professor (full time): Full teaching load that includes teaching courses in both the Associate Degree and Baccalaureate Degree programs within the Clinical Laboratory Sciences department in the Dumke College of Health Professions. I teach three courses, meaning that I am responsible for updating and monitoring the overall progress of these 3 courses, in addition to updating the syllabi and creating new course materials where needed. I also participate with the other CLS faculty teaching and managing another course.
University of Texas Medical Branch	03/96 to 7/01	Non-Tenure Track Lecturer in Clinical Laboratory Sciences Department in the

School of Allied Health Sciences. I taught 4 courses in Baccalaureate Degree program meaning that I was responsible for updating and monitoring the overall progress of these 3 courses, in addition to updating the syllabi and creating new course materials where needed.

Course Taught	Location	Dates
<i>Immunohematology</i> : Lecture and laboratory covering the theory and principles of Immunohematology.	University of Texas Medical Branch On campus and at a distance using real time video conferencing	05-96 to 07-01
<i>Urinalysis and Body Fluids</i> : Evaluation of urine and body fluid formation including chemical, physical, cellular and microscopic properties which are normal as well as those indicative of disease.	University of Texas Medical Branch On campus	08-96 to 12-00
<i>Hematology I</i> : Study of the anatomy and pathophysiology of the blood and hematopoietic tissue.	University of Texas Medical Branch	08/98 to 12-00
<i>Case Studies in Clinical Laboratory Sciences</i> : Problem based learning format for senior CLS students. Clinical Case studies used to help students develop skills in analysis and diagnosis of different disease processes and their role as a CLS in health care including appropriate testing protocols, quality assurance and control.	On campus University of Texas Medical Branch On campus and at a distance using video conferencing.	01-97 to 05-01

<p><i>CLS 1113 Introduction to Clinical Laboratory Sciences:</i> This 4 credit hour lecture and laboratory course with anywhere from 35 to 50 students introduces the student to the profession of Clinical Laboratory Sciences.</p>	<p>Weber State University On campus</p>	<p>08-01 to 05-05</p>
<p><i>CLS 2215 Principles of Immunohematology:</i> This 4 credit hour lecture and laboratory course with anywhere from 25-35 students introduces the student to the Immunohematology, also known as Blood Bank or Transfusion Medicine.</p>	<p>Weber State University On campus and I also teach online sections.</p>	<p>01-02 to 05/09</p>
<p><i>CLS 3311 Advanced Clinical Immunohematology:</i> This 3 credit hour lecture and laboratory course with anywhere from 30 to 40 students expands on the instruction presented in the CLS 2215.</p>	<p>Weber State University On campus and online.</p>	<p>08-01 to 05/09</p>
<p><i>CLS 4401, 4402 Simulated working clinical laboratory:</i> This 5 credit hour courses for anywhere from 10 to 20 students is team taught by all faculty in the CLS department. These are team-based practical project courses designed to give the student skills needed in the laboratory management and administration.</p>	<p>Weber State University On campus.</p>	<p>07-09 to 05/09</p>
<p><i>CLS 4414/4417Laboratory Teaching and Supervision:</i> This 3 credit hour course (over two semesters) for anywhere from 10-20 students. Students apply sound instructional and pedagogical theory through the completion of course objectives and the</p>	<p>Weber State University On campus.</p>	<p>07-09 to 05/09</p>

preparation of an instructional unit.

<i>CLS 2830, 4446, 4800, 4830</i>	Weber State University, Online	07-03 to 05/09
<i>MMBio 102, Introduction to Clinical Laboratory Techniques.</i> This 1 credit hour laboratory course with anywhere from 35 to 40 students introduces the student to the profession of Clinical Laboratory Sciences.	Brigham Young University	08-09 to present
<i>MMBio 422,424, 423, 425.</i> Pathophysiology and Laboratory Diagnosis in Clinical Chemistry.	BYU	08-09 to 2018
<i>MMBio 491.</i> Concept Applications in Laboratory Medicine.	BYU	08-09 to present
<i>MMBio 393, 395.</i> Lecture and Laboratory course in Immunohematology and Coagulation theory.	BYU	01-10 to 2018
<i>MMBio 407.</i> Clinical Microbiology.	BYU	01-11 to 2013
<i>MMBio 221.</i> General Microbiology for Non Majors	BYU	06/13 to 08/14
<i>Rel A121.</i> First half of the Book of Mormon	BYU	08/15 to 18/17
<i>MMBio 412.</i> Immunohematology	BYU	01/18 to Present
<i>MMBio 406.</i> Clinical Chemistry	BYU	1/18 to Present
<i>MMBio 405.</i> MLS Laboratory Operations	BYU	1/18 to Present

Teaching innovations

Date	Activity Description
Fall 2001	Redesigned CLS 3311 Advanced Clinical Immunohematology and CLS 1113 Introduction to Clinical Laboratory Practices as new Faculty in Clinical Laboratory Sciences department. Wrote new objectives, exams, laboratories, lectures (Using MS PowerPoint), syllabi, and developed Course packets which included Syllabus, Course Schedule, and all PowerPoint lectures in note taking format. Also made available all course materials Online for easy access for on campus students.
Spring 2002	Redesigned CLS 2215 Principles of Immunohematology for on campus course writing new objectives, exams, syllabus, laboratories and lectures as new faculty in Clinical Laboratory Sciences department.
Fall 2002	Developed CLS 2215 Principles of Immunohematology for Online course delivery using PowerPoint slides and weekly interactive Discussion board topics to be attended by all online students. Went before College and University curriculum committees to add one more credit hour to this course because it is the first blood bank course and there wasn't enough time to efficiently instruct the students in proper blood bank protocol, serological techniques, quality assurance/control.
2003-2004	Current Online courses (CLS 3311 and CLS 2215) were delivered either using Real Player with streaming audio or PowerPoint slides. The streaming audio was very ineffective since it had multiple buffering moments of silence in the middle of the lectures. The PowerPoint slides were not interactive enough and did not cater to the auditory or visual learners very well. So, using MS Producer I scripted out all of my PowerPoint lectures (updating as I went) for each class and added digital audio to each lecture. I then burned CDs with the lectures and sent them to each online student. The lectures became much more interactive and Producer allows the students to stop and go back over any part of the lecture. The response from the students was tremendous, they love it.
2007-2008	Current Online courses (CLS 2215 and CLS 3311) were delivered using audio CD's made with MS Producer. CD's would be mailed to each online student before the semester began which was often quite cumbersome and complicated; especially since many students had changed their addresses without letting us know. I am currently converting my online course delivery using the Adobe Captivate to imbed the audio into the online course (Blackboard) eliminating the

course CD. Students access the audio lectures in the online course. I am also updating all of the course content at the same time.

- 2009-2010 Updated and revamped much of MMBio 421 laboratory testing procedures such as new phlebotomy accounting and training; recording of laboratory test results using spreadsheet to record student results and keep running quality control values, etc.
- 2011 Completely revamped MMBio 102. Changed from 1.5 weeks of Microbiology to 4 weeks of Microbiology. Cut back on Clinical Chemistry. This will enhance the preparation of MLS students for MMBio 407, Clinical Microbiology.
- 2012 Completely revamped MMBio 407. First half of course we now teach organisms such as Gram Positives, etc. Second half of course we concentrate on disease processes associated with bacteria. Previous course delivery was disease processes only. We also added laboratory quizzes and midterm exam. Rewrote all lectures to reflect to new delivery schedule.
- 2013 Taught MMBio 221. This was a new course prep. But I did it with two graduate students, Ryan Van Yperen and Phil Bennallack. Both were PhD students in the MMBio Department. The purpose was to help these future educators. We discussed and developed the course together. They were taught how to write learning objectives, exams and prepare lecture content relating to the learning objectives.
- STDEV 214R - Special Topics. I also become part of the BYU Interprofessional Education Collaborative (IPEC) for Health. This course is the result of the grant submitted and received by Dr. Barbara Heise and Dr. Katreena Merrill in the college of Nursing. The purpose is to help future health professionals learn the critical nature of the health care team - all working for a common goal: the patient. Also to learn of each health care discipline to better understand their role and how they relate to one another. Disciplines include: Nursing, PreProfessional, NDFS and Public Health.
- 2014 Taught MMBio 221. This summer I did it with Stewart Gardner, a PhD students in the MMBio Department. We developed and delivered the course together. He was taught how to write learning objectives, exams and prepare lecture content relating to the learning objectives.
- 2015 Dr. Anderson Young retired this summer. As a result, I became the Program Director of the Medical Laboratory Sciences program in the MMBio Department. I now teach MMBio 422 and 423 courses without Dr. Anderson Young, which means I had to prep the lecture content (Liver function, Lipid studies, Endocrine) she taught for each course.

Rel A 121, First Half of the Book of Mormon. This was a new course prep, too.

- 2016 Dr. Davis did not teach Fall 2016 so I taught all of the MMBio 422 and 423 Clinical Chemistry course content of these two courses adding to my teaching load.
- 2017 Dr. Ryan Cordner was hired last year and we team taught MMBio 422, 423, 424 and 425 Clinical Chemistry. It was wonderful. The MLS program submitted a complete curriculum revision during 2017. All courses are revised except MMBio 407, 417 and 418. This was approved by the MMBio Department, College of Life Sciences and the University Curriculum committees.
- 2018 Received approval to overhaul the MLS curriculum courses. Moved from mostly Term courses to full semester courses.

Employment or academic experience that has contributed significantly to my teaching:

<u>Institution</u>	<u>Position and Description</u>	<u>Dates:</u>
University of Texas Medical Branch	Blood Bank employee and student in Specialist in Blood Banking Technology program (12 month course).	1995 to 1996
Mayo Clinic Scottsdale, Scottsdale, Arizona	Fulltime bench Medical Technologist (Clinical Laboratory Scientist) performing/reporting tests, quality control and preventive maintenance in Microbiology, Hematology, Blood Bank, Urinalysis and Chemistry. Lead Tech over Blood Bank and Urinalysis.	1992 to 1995

St. Joseph's Hospital, Phoenix, Arizona	Fulltime bench Medical Technologist performing/reporting tests, quality control and preventive maintenance in Microbiology, Hematology, Blood Bank, Urinalysis and Chemistry.	1990 to 1992
Bannock Regional Hospital, Pocatello Idaho	Fulltime bench Medical Technologist performing/reporting tests, quality control and preventive maintenance in Blood Bank. Also covered Microbiology, Hematology, Urinalysis and Chemistry during evening segment of the shift.	1988 to 1990
Kennestone Regional Hospital, Marietta, Georgia	Fulltime bench Medical Technologist performing/reporting tests, quality control and preventive maintenance in Microbiology, Hematology, Blood Bank, Urinalysis and Chemistry. This is where I fell in love with Blood Banking. I just could not get enough.	1987 - 1988
West Paces Ferry Hospital, Atlanta, Georgia	Fulltime bench Medical Technologist performing/reporting tests, quality control and preventive maintenance in Microbiology, Hematology, Blood Bank, Urinalysis and Chemistry.	1985 to 1987

Scholarship

- Coauthored Blood Bank textbook for Pearson-Prentice Hall with Dr. Gretchen Johns (Mayo Clinic, Jacksonville, Fl.) and Lisa Denesiuk (*DynaLIFE_{Dx}*, Diagnostic Laboratory Services, Edmonton, Canada). Production date summer 2015.
- Chapter revision for Dr. Denise Harmening in the textbook, "Modern Blood Banking and Transfusion Practices", Sixth Edition, F.A. Davis publisher that was submitted September 2011.
- Summer 2006 published article in Clinical Laboratory Science Journal, Online Interactivity: Key to CLS Online Instruction (Clin Lab Sci 2006: 19: 122-6).

- As of Summer 2004 wrote Chapter 13, Pretransfusion Testing in a prominent blood bank text book, “Modern Blood Banking and Transfusion Practices” Fifth Edition by Dr. Denise Harmening.
- 6 national, 2 regional, and 3 state podium presentations. Most recent was at the American Society for Clinical Laboratory Sciences Clinical Laboratory Educators conference, March 2012.
- I have been a Clinical Laboratory Scientist (CLS) since 1985 in hospitals and clinics throughout the United States, working mostly as a Generalist (working in all lab departments: Hematology, Microbiology, Chemistry and Blood Bank) but specifically in the Blood Bank. I have used my extensive experience as a CLS to produce scholarly work that contributes to the profession and body of knowledge on national, state, and local levels.
- Student Research mentor for 2007-2008, TRALI: A National Survey of Transfusion Related Acute Lung Injury with students Bryce Hoover, Kyle Fowers and Paul Jeffery. Accepted and presented at American Society for Clinical Laboratory Sciences (ASCLS) National meeting July 2008 student poster competition, ASCLS – Utah Spring Seminar and WSU Undergraduate Research Symposium.
- Student Research mentor for 2007-2008, Survey on Pretransfusion Compatibility Testing Methodologies in the Western United States with students Brianne Dahl, Teresa Patterson and Kelsey Farnsworth. Accepted and presented at American Society for Clinical Laboratory Sciences (ASCLS) National meeting July 2008 student poster competition, ASCLS – Utah Spring Seminar and WSU Undergraduate Research Symposium.
- Student Research mentor for 2006-2007, Comparison of Four Pre-Transfusion Methods for the Detection of Anti-K and Anti-E, with students Julie Kakazu, Chere Clawson, Rodney Sparkman and Elisa Stephenson. Accepted and presented at the American Society for Clinical Laboratory Sciences National meeting July 2007 student poster competition in San Diego.
- Student Research mentor for 2006-2007, Effects of Hemolysis and Lipemia on Immunoassay Results, with students Van Aston and Aaron Harper. Accepted and presented at the American Society for Clinical Laboratory Sciences National meeting July 2007 student poster competition in San Diego.
- Student Research mentor 2005-2006, Comparison of Ortho’s Gel versus The Traditional Tube Method for the Detection of Anti-K, with students Natasha McRae and Linda Sethongkang. Accepted and presented in student poster competition at American Society for Clinical Laboratory Sciences National Meeting in July, 2006 in Chicago. By the way, this poster won the competition.
- Student Research mentor 2004-2005, Gel Card Sensitivity: The Detection of Anti-M Antibodies, with students Zane Williams and Nicole Spendlove. Accepted for NCUR presentation Spring 2005.
- Student Research mentor 2001-2002, Gel Technique versus the Tube Method for Antibody Titrations, with students Chrissy Olmstead, Amanda Tinsley and Teresa Kunzler.

- Student Research mentor 2000-2001, Gel Technique versus the Tube Method for Antibody Titrations, with students Claudia Garza, Melissa Gonzalez and Jose
- Student Research mentor 1999-2000: Comparison of Comparing the Sensitivity between the Gel Test and the Albumin Tube Technique in Performing Antibody Titrations, with students Graciela Hurtado and Eddie Salazar.
- Student Research mentor 1998-1999: Evaluating the Efficacy of Screening for HbS in RBC units for Transfusion of Newborns less than Four Months of Age with students Priya Patel, Mindy Collard and Christopher Gross.
- Student Research mentor 1997-1998: Group O Utilization with students Phuc Duong, Ngoc Lan Vo and Ky Troung, and Surgical Blood Utilization with students Sri Suganda, Chia Lin Lai, and Kylar Hester.
- Student Research mentor 1996-97: ABO Titrations and Age with students Carol Nemitz and Emad Daoud.

Conferences Attended

Description	Date
American Society for Clinical Laboratory Sciences (ASCLS) Clinical Laboratory Educators conference. Presented 60 min. General Session.	February 2020, Orlando Florida
ASCLS – CLEC meeting. Committee on educational programs and initiatives member – February meeting.	February 2020, Orlando Florida
American Society for Clinical Laboratory Sciences (ASCLS) National meeting. Member of the CLEC meeting planning committee.	July 2018, Chicago, Illinois
American Society for Clinical Laboratory Sciences (ASCLS) Clinical Laboratory Educators conference. Presented 60 min. General Session.	February 2018, Houston Texas
American Society for Clinical Laboratory Sciences (ASCLS) National meeting. Member of the ASCL Product Development committee.	August 2017, San Diego, California
American Society for Clinical Laboratory Sciences (ASCLS) Clinical Laboratory Educators conference. Attended NAACLS training for MLS Program Directors.	February 2016, Minneapolis, Minnesota

American Society for Clinical Laboratory Sciences (ASCLS) National meeting. Member of the societies Product Development committee.	July 2015, Atlanta, Georgia
American Society for Clinical Laboratory Sciences (ASCLS) National meeting. Member of the societies Bylaws committee.	July 2014, Chicago, Illinois
American Society for Clinical Laboratory Sciences (ASCLS) National meeting. Member of the societies Bylaws committee.	July 2013, Houston, Texas
American Society for Clinical Laboratory Sciences (ASCLS) Clinical Laboratory Educators Conference. Presented 90 minute seminar.	February 2012, Salt Lake City, Utah
American Society for Clinical Laboratory Sciences (ASCLS) National meeting. ASCLS Delegate, voting member.	July 2011, Atlanta, Georgia
American Society for Clinical Laboratory Sciences (ASCLS) National meeting. ASCLS Delegate	July 2010, Anaheim, California
American Society for Clinical Laboratory Sciences (ASCLS) Clinical Laboratory Educators Conference. Presented 90 minute seminar.	March 2009, Denver, Colorado
American Society for Clinical Laboratory Sciences (ASCLS) National meeting. ASCLS Delegate voting member.	July 2008, Washington D.C.
American Society for Clinical Laboratory Sciences (ASCLS) National meeting Student poster competition	July 2007, San Diego, California
American Society for Clinical Laboratory Sciences (ASCLS) Clinical Laboratory Educators Conference	March 2007, Louisville, Kentucky
American Society for Clinical Laboratory Sciences (ASCLS) National meeting Student poster competition	July 2006, Chicago, Illinois
American Society for Clinical Laboratory Sciences (ASCLS) Clinical Laboratory Educators Conference: Presenter	March 2006, San Antonio, Texas

American Society for Clinical Laboratory Sciences (ASCLS) National meeting	July 2005, Orlando, Florida
National Conference on Undergraduate Research, Student research poster presentation	April 2005, Lexington Virginia Published in <i>Proceedings of The National Conferences</i> .
American Society for Clinical Laboratory Sciences (ASCLS) Clinical Laboratory Educators Conference: Presenter	March 2005, Williamsburg, Virginia
Utah Society for Clinical Laboratory Sciences Spring Seminar	April 2005, Ogden, Utah
Association for Educational Communications and Technology Professional Development Institute and Conference	June 2004, Denton, Texas
Utah Society for Clinical Laboratory Sciences Spring Seminar	April 2004, Ogden, Utah
Utah Society for Clinical Laboratory Sciences Spring Seminar: Presenter	April 2003, Ogden, Utah
American Society for Clinical Laboratory Sciences Clinical Laboratory Educators Conference: Presenter	March 2003, New Orleans, Louisiana
Utah Society for Clinical Laboratory Sciences Spring Seminar	April 2002, Ogden, Utah
Texas Distance Learning Association Meeting: Presenter	March 2001, Houston Texas
American Society for Clinical Laboratory Sciences Clinical Laboratory Educators Conference: Presenter	March 2000, Salt Lake City Utah
American Society for Clinical Laboratory Sciences Clinical Laboratory Educators Conference: Presenter	March 1999, San Juan Puerto Rico

Workshops Attended

Description	Venue and Date
ASCLS CLEC – National Accreditation Agency for Clinical Laboratory Sciences training for MLS Program Directors	Orlando, Florida February 2020

ASCLS Clinical Laboratory Educators Conference – National Accreditation Agency for Clinical Laboratory Sciences training for MLS Program Directors	San Diego, California
Spring 2016 IPEC Faculty Development Institute	Herndon, Virginia, May 2016
Faculty Spring Seminar	Brigham Young University, Spring 2011
New Faculty Retreat Weber State Teaching and Learning Forum	August 2002, Park City Utah
New Faculty Retreat Weber State Teaching and Learning Forum	August 2001, Sherwood Hills Utah
National Laboratory Training Network and Centers for Disease Control: Laboratory Readiness for Bioterrorism	February 2001, Houston Texas

Awards/Recognition Description

Date

Brigham Young University College of Life Sciences Outstanding Teaching Award, 2019	2019
Student evaluations for overall teaching effectiveness in the WSU CLS program average 4.6 out of 5.0.	2001- 2009
Weber State CLS Department students had submitted my name for Dumke College of Health Professions Teacher of the Year.	2002 and 2003
Dumke College of Health Professions Teacher of the Year.	2004-2005

Service

Departmental, college, university, administrative, academic.

Assignment	Date
Department of Microbiology and Molecular Biology Undergraduate Student Development committee	2009 – 2015
Department of Microbiology and Molecular Biology Scholarship committee	2010 - present
College of Life Sciences Scholarship committee	2010 - present
Course designer CLS 1113, 3311, 2215	08/01-06/09

Dumke College of Health Marriot Development Committee	08/01- 05/03
Dumke College of Health, Scholarship Committee	08/01-06/09
Dumke College of Health, Curriculum Committee	08/03-05/07
Dumke College of Health, Grievance Committee, Co-Chair	08/03-05/09
Weber State University, Appointment, Promotion, Academic Freedom and Tenure Committee	08/04 – 05/07
Weber State University Faculty Senate	08/07 - 2010

Membership in professional organizations.

Organization	Date
American Society for Clinical Laboratory Sciences – Utah	03/02-present
American Society for Clinical Laboratory Sciences – National	03/96-present
American Association of Blood Banks	01/96-present
Texas Association of Clinical Laboratory Scientists	97-01
American Society for Clinical Pathology	08/85-present

Professionally Related Service

- **Active membership and office holdings in professional organizations:**
 - American Society of Clinical Laboratory Sciences (member)
 - American Society of Clinical Pathology (member)
 - American Association of Blood Banks (member)
 - Utah Society of Clinical Laboratory Sciences (member, board of directors secretary)
 - Lamda tau (member)
- **Local, Regional and National:**
 - American Society for Clinical Laboratory Sciences – National. Member of the Committee on Educational Programs & Initiatives (CEPI), 2019 to present. Three year term.
 - American Society for Clinical Laboratory Sciences – National. Member of Product Development committee, 2014 to 2018
 - American Society for Clinical Laboratory Sciences – National. Member of Bylaws committee, 2012 to 2014.
 - American Society of Clinical Laboratory Sciences – Utah (member, President (2011) and Past President)

- **Brigham Young University Service**
 - College of Life Sciences Scholarship committee, Microbiology and Molecular Biology (MMBio) Department Awards and Resources committee, 2012 to present.
 - MMBio Department Scholarship committee and Undergraduate Student Development committee, 2009 – present
- **Brigham Young University Medical Laboratory Sciences Program**
 - Internship Placement, 2009 – present.
 - CLS Club Mentor, 2010 – present.
- **Weber State University Faculty Service Activities:**
 - WSU Faculty Senate member beginning 2007.
 - WSU Appointment, Promotion, Academic Freedom and Tenure committee (member), 2004 – 2007.
- **Weber State Dumke College of Health Professions Service Activities:**
 - Scholarship Committee
 - Curriculum Committee
 - Grievance Committee
 - Grievance Committee (co-chair) 2003 – 2006.
 - Marriot Development Committee (member) 2002 – 2003
- **Weber State CLS Department Service Activities:**
 - Student Advisement: Online Students
 - Student Recruitment
 - CLS Department Advisory Committee
 - Blood Products and Reagents from local hospitals
 - Curriculum