

AGENDA
REGULAR MEETING OF THE
UTAH STATE UNIVERSITY BOARD OF TRUSTEES
VIA ZOOM TELECONFERENCE

<https://usu-edu.zoom.us/j/87427032351?pwd=bVYwa0szSHIQOU1MUWd1R0RwbUVOZz09>

June 24, 2022 – 9:00 a.m.

- 9:00 a.m. Regular Meeting
1. Welcome and Introductory Items, Chair Kent Alder
- 9:05 a.m. Closed Executive Session
- 9:15 a.m. Regular Meeting (continued)
2. Chair's Report, Chair Kent Alder
 - 2.1 Discuss agenda for the August 12, 2022, workshop.
- 9:20 a.m. 3. Committee Reports, Committee Chairs
 - 3.1 Student Health, Safety and Well-being Committee – Chair David Huntsman
 - 3.2 Recruiting, Retention & Completion Committee – Chair Gina Gagon
- 9:35 a.m. 5. President's Report, President Noelle Cockett
 - 5.1 Update on USU Strategic Priorities Plan
 - 5.2 USU Building Project Updates
 - 5.2.1 USU Huntsman Experiential Learning Center (SB102) – presentation by Dean Doug Anderson, Frank Caliendo and Dave Patel
 - 5.2.2 SER Building Remodel (SB102)
 - 5.2.3 College of Veterinary Medicine Building
 - 5.2.4 Monument Valley Building
- 10:05 a.m. 6. Consent Agenda
 - 6.1 Minutes from Board of Trustees Regular and Closed Meetings held on May 4, 2022
 - 6.2 Minutes from Board of Trustees Special and Closed Meetings held on May 17, 2022
- 10:10 a.m. 7. Action Agenda
 - 7.1 R401-USU College of Veterinary Medicine and Degree Program – President Noelle Cockett
 - 7.2 Capital Development Priorities for Fiscal Year 2023-24 – Vice President Dave Cowley
 - 7.3 Tenure for Linda Nagel, dean of S.J. and Jessie E. Quinney College of Natural Resources – Provost Frank Galey
8. Information Items
 - 8.1 President's Recent and Upcoming Events
 - 8.2 Report of Investments for February 2022
 - 8.3 Revised 500 Level Policies
 - 8.3.3 Policy 552: Uniform Wired and Wireless Data Networks (Combining Policies 506 and 552)
 - 8.3.4 Policy 518: Cell Phone
- 10:30 a.m. Adjourn

UTAH STATE UNIVERSITY BOARD OF TRUSTEES
Utah State University, Logan, Utah
May 4, 2022

Minutes of the Closed Session of the Utah State University Board of Trustees held in the University Inn Sonne room, Utah State University and via Zoom videoconferencing, commencing at 1:18 p.m.

MEMBERS PRESENT

Kent K. Alder (Chair)	Kacie Malouf
John Y. Ferry (Vice Chair)	Wayne L. Niederhauser
Clara Alder	Steven L. Palmer
Gina Gagon	David A. Petersen
David H. Huntsman	Tessa White

UNIVERSITY REPRESENTATIVES PRESENT

Janalyn Brown	Interim Secretary of the Board of Trustees
Noelle E. Cockett	President
Dave Cowley	Vice President Finance and Administrative Services
Francis D. Galey	Executive Vice President and Provost
Mica A. McKinney	General Counsel and Vice President, Legal Affairs

OTHER ATTENDEES PRESENT

Wilford Clyde	Board Member, Utah Board of Higher Education
Scott L. Theurer	Board Member, Utah Board of Higher Education
Dave R. Woolstenhulme	Commissioner, Utah Board of Higher Education

Chair Alder conducted the meeting. Personnel and legal issues were discussed.

Action: Trustee Petersen made a motion to adjourn the meeting. Trustee White seconded the motion; the voting was unanimous in the affirmative.

The meeting adjourned at 2:07 p.m.

Kent K. Alder, Chair

Janalyn Brown, Interim Secretary
(minutes taken by Janalyn Brown)

Date Approved

UTAH STATE UNIVERSITY BOARD OF TRUSTEES
Utah State University, Logan, Utah
May 4, 2022

Minutes of the Regular Meeting of the Utah State University Board of Trustees held in the University Inn Sonne room, Utah State University and via Zoom videoconferencing, commencing at 1:04 p.m.

MEMBERS PRESENT

Kent K. Alder (Chair)	Kacie Malouf
John Y. Ferry (Vice Chair)	Wayne L. Niederhauser
Clara Alder	Steven L. Palmer
Gina Gagon	David A. Petersen
David H. Huntsman	Tessa White

UNIVERSITY REPRESENTATIVES PRESENT

Janet Anderson	Vice Provost
Jodi Bailey	Chief Audit Executive
Lisa Berreau	Vice President for Research
Janalyn Brown	Interim Secretary of the Board of Trustees
Kaleb Cavazos	USU Student and Fraternity Member
Noelle E. Cockett	President
Dave Cowley	Vice President Finance and Administrative Services
Amanda DeRito	Associate Vice President for Strategic Communications
Boyd Edwards	Faculty Senate President
David Forbush	Associate Director Center for the School of the Future
Francis D. Galey	Executive Vice President and Provost
Nancy Hanks	Assistant to the President
Sarah Kohler	Technical Coordinator SR
Mica A. McKinney	General Counsel and Vice President, Legal Affairs
James Morales	Vice President for Student Affairs
Ian Nemelka	Program Coordinator Fraternity & Sorority Life Adviser
Parker Fawson	Director & Emma Eccles Jones Endowed Chair in Early Childhood
Sean Peterson	Systems Administrator Senior
Larry Smith	Vice President Statewide Campuses
Lucas Stevens	Former USUSA President and Trustee Member
Kara Tim	USU Student and Sorority Member
Robert Wagner	Vice President Academic & Instructional Technology
Ken White	Vice President Dean College of Agriculture and Applied Sciences
Jen Wright	Assistant Director for Strategic Communications

OTHER ATTENDEES PRESENT

Carol Amick	
Wilford Clyde	Board Member, Utah Board of Higher Education
Stan Lockhart	
Robert Nelson	
Scott L. Theurer	Board Member, Utah Board of Higher Education

1. BOARD OF TRUSTEES REGULAR MEETING

Chair Alder called the meeting to order. He welcomed and thanked those present for their attendance.

Chair Alder made note of item 7.4 being removed from the agenda due to additional information having been received.

Chair Alder read a Resolution of Appreciation and Commendation for Lucas Stevens and offered him a gift from the Board of Trustees. Lucas expressed appreciation for being a part of the Board of Trustees. President Cockett then presented Lucas with a framed picture of Old Main. (Appendix A)

Chair Alder administered the Oath of Office to new USUSA President Clara Alder. President Cockett introduced Clara who then shared some information about herself, her background, and her and her family's history at Utah State. President Cockett stated one of Clara's platforms is to create more traditions to help unify students across USU. Clara introduced the USUSA theme "We are one" for the 2022-23 school year. (Appendix B)

Action: Vice Chair Ferry moved in accordance with 52-4-205 of the Utah Code, that the Trustees go into a Closed Session for the sole purpose of discussing the character, professional competence, or physical or mental health of individuals, pending or reasonably imminent litigation, and the possible sale of real property. Trustee Huntsman seconded the motion. Voting was unanimous in the affirmative and the motion passed.

Chair Alder reopened the Regular Meeting at 2:09 p.m.

2. CHAIR'S REPORT

Chair Alder reminded attendees again there would be no discussion on action agenda item 7.4 and would be moved to a future meeting. The next Board of Trustees Regular Meeting will be held via Zoom videoconference on June 24, 2022. Commencement schedules for Trustees were included in each of their folders and a reminder was given for the Dignitary Dinner held that evening at 6:00 p.m.

Committees are very important as they carry the load for the Board of Trustees. Work being done in the committees is appreciated.

a. Committee Reports

- a. Executive Committee typically sets the agenda for upcoming meetings. Chair Alder discussed Trustee Petersen's idea of inviting different students or other university groups who have accomplished something unique or outstanding to come to the Trustee meetings to share their successes with the Board. Chair Alder will continue to invite others to present to the group such as statewide campus representatives, college deans, faculty senate president, etc. which he believes will help the board members make a more positive impact as a group and help build a better university.

- b. Wayne Niederhauser chair of the Academic Approval Committee reported his committee went over several name changes and slight program changes. New R401 programs are being added which are listed on the consent agenda. Additionally, Utah State is adding a new Bachelor of Science-Environmental Planning degree which will be voted on in the action agenda.
- c. Gina Gagon chair of the Recruitment, Retention and Completion Committee met the previous Monday and explained the university is right in the middle of registration so there are not solid numbers, but things are tracking well in conjunction with the team's fall enrollment goals. USU Blanding is still struggling with not being able to get out into the reservation.

Registration is looking good overall. The housing and dining grant has helped with recruitment, though as of Monday's meeting, there are over 1,000 students on the housing waitlist which is concerning. If students cannot get housing, will they attend Utah State? The "Pell Promise" or "USU Promise" has been another important component of recruitment. This program will cover the costs above what the federal Pell grant pays for. This scholarship has currently been offered to 2,457 students, of which 39% are first generation college students.

The USU team is working very hard to attain the goals set by the Board of Higher Education of reaching the underserved population of Utah. Another component which is helping the university is earned admissions. These are students who, on paper, do not meet the admissions criteria of Utah State University. There is currently a program in which students must take some classes before they can start at the university. Of the 585 students offered the earned admissions pathway, 21% were LatinX and 39% were first generation students. It is too early to assess retention and completion to share meaningful data. Chair Gagon plans to report later in the summer once more complete information becomes available. The team's goal for fall 2022 is 14,983 student admissions. Though early in the process, the university is currently at 14,048 admitted students which is ahead of fall 2021's 13,584 admissions. One long term issue which is concerning to the team is how does USU get the same results once the university does not have ARPA money for housing grants. Utah State will also need to come up with ongoing funding for the pell promise program. Trustee White suggested housing may continue to be a concern for students as well. Vice President Wagner explained the implementation of a new university website which combines both on and off campus housing information, including daily and weekly updates from private partners to show students available housing. President Cockett affirmed the 1,000 on-campus housing waitlist is the largest ever seen at the Logan campus.

Trustee Gagon shared Vice President Wagner's group has been working on implementing a strategic enrollment management plan which will include each of the colleges and deans to ensure all are on the same team. President Cockett explained Provost Galey and Analysis, Assessment & Accreditation Executive Director Michael Torrens have been working on a business model which will drive more attention to the colleges on enrollment and completions. It looks very exciting.

- d. Student Health, Safety and Well-being Committee Chair Huntsman mentioned the committee had an open discussion with Matt Pinner, newly hired Executive Director of the Office of Equity who has been in place for a couple of months. They spoke about student safety with an emphasis on sexual misconduct, its prevention, and what to do when and if it does happen. Director Pinner reported, based on his limited experience, he is incredibly optimistic, is impressed with his team, and feels the university is well positioned going forward to make continued strides and improvements. Pinner is pleased with the level of support from the university, from President Cockett on down through all the levels of the organization. Trustee Huntsman concluded he received a positive report and plan to have more to discuss with the committee going forward.
3. President Cockett introduced Fraternity and Sorority Life Advisor Ian Nemelka and his student co-presenters Kara Tim and Kaleb Cavazos. (Appendix C)

President Cockett remarked she presents the “President’s Cup” to the top Greek chapter each year which allows her to acknowledge, applaud, and have insight into how each of the chapters are doing. In 2022, the President’s Cup was awarded to Sigma Phi Epsilon.

4. PRESIDENT’S REPORT

President Cockett commented she was asked to give an update on her Strategic Plan which she feels is going fantastically. She feels the strategic plan should be directed at where the university wants to be in the next five years. The President feels she has accomplished each one of her Presidential Priorities which she established when she took over the presidency. President Cockett has the best and brightest and the whole university looking at where they are going the next five years. The ensuing result is anticipated to be a strong document which will absolutely carry Utah State University through to the next level.

Co-chairs of the committee are Vice President White and Director Torrens with the rest of the group being hand-picked by the President for their deep thinking as well as their passion for Utah State. The working group has come up with the idea of Utah State University not just being one of but being the premier land and space grant university. Once the group identifies three or four core themes, the strategies will then be intertwined. The Board of Trustees will be the first stakeholders the committee presents the plan to. Trustee Gagon asked President Cockett if it would be helpful for board members to send the committee questions or items they would like incorporated into the strategic plan. President Cockett confirmed she would welcome any input and is planning to have a draft to show the Trustees at the August 12, 2022 meeting.

Answering Trustee Palmer’s question about a scorecard of sorts in which the plan will be measured, Vice President Wagner verified there will be ways to assess each of the action plans and strategies. Utah Board of Higher Education member Wilford Clyde was asked by Trustee Gagon if Utah State was expected to fill a certain role in the state of Utah. Board Member Clyde expressed his hope that each institution across Utah would look to the Utah System of Higher Education’s strategic plan and incorporate ways they could help the System to achieve their objectives and goals as well.

Board Member Theurer mentioned the Board of Higher Education has a statutory responsibility to evaluate university presidents. They use a strategic plan to complete this evaluation. Board Member Theurer believes Utah State University fills both the role of a research institution as well as that of a teaching university very well.

Recent Events

- a. Mountain West Women's Basketball Tournament – Las Vegas, Nevada – March 6-9, 2022
- b. Remarks at Virtual International Women's Day Celebration: Utah Women Learn, Lead, and Lift – March 8, 2022
- c. Mountain West Men's Basketball Tournament – Las Vegas, Nevada – March 9-12, 2022
- d. Mountain West Board of Directors Virtual Meeting – March 21, 2022
- e. Utah Board of Higher Education Meetings – Utah Valley University and Mountainland Technical College – March 24-25, 2022
- f. Remarks at Spring Runoff Conference on Water in Utah and the West – March 29, 2022
- g. Panelist at Deseret News Round Table Discussion at Malouf Companies – March 29, 2022
- h. Remarks at USU Moab Ribbon Cutting and Luncheon – Moab, Utah – April 1, 2022
- i. Honorable Guest and Speaker at Advances in Genome Biology and Technology (AGBT) Meeting – San Diego, California – April 4-6, 2022
- j. USU Board of Trustees Videoconference Meeting – April 8, 2022
- k. Present at Robins Awards Ceremony – April 8, 2022
- l. Adjudicate Miss USU Pageant – April 11, 2022
- m. Moderate Panel at Seely Hinckley Luncheon – April 12, 2022
- n. Legislative Appreciation Dinner – April 13, 2022
- o. Present at Rotary Luncheon – Logan, Utah – April 14, 2022
- p. Remarks at Founder's Day and Old Main Society – April 14, 2022
- q. USU Brigham City Commencement – April 15, 2022
- r. Mountain West Board of Directors Virtual Meeting – April 19, 2022
- s. USU Southwest – Nephi Commencement – April 21, 2022
- t. USU Southwest – Parowan Commencement – April 22, 2022
- u. USU Tooele Commencement – April 23, 2022
- v. USU Athletics Hall of Fame Induction – April 23, 2022
- w. Promotion and Tenure Reception – April 27, 2022
- x. USU Moab Commencement – April 28, 2022
- y. Present President's Cup Award at Fraternity and Sorority Life Reception – April 28, 2022
- z. USU Blanding Commencement – April 29, 2022
- aa. USU Eastern Commencement – Price, Utah – April 30, 2022
- bb. USU Uintah Basin Commencement – Vernal, Utah – April 30, 2022
- cc. Host A.C. Women's Luncheon – May 2, 2022
- dd. USU Board of Trustees Regular Meeting – May 4, 2022
- ee. USU Dignitary Dinner – May 4, 2022

Upcoming Events

- a. USU Commencement Ceremony – May 5, 2022
- b. USU Commencement Convocations – May 5-7, 2022
- c. Mountain West Board of Directors Legal and Finance Committee Virtual Meeting – May 17, 2022
- d. Envision Utah Executive Committee Virtual Meeting – May 18, 2022
- e. Utah Board of Higher Education Meeting – Salt Lake City, Utah – May 20, 2022
- f. Mountain West Board of Directors Virtual Meeting – May 20, 2022
- g. Remarks at Large Animal Genetic Editing Conference – Park City, Utah – May 8, 2022
- h. USU Foundation Board Meeting – Moab, Utah – June 9-12, 2022
- i. Mountain West Board Meeting – Colorado Springs, Colorado – June 5-7, 2022
- j. Association of Public and Land-grant Universities Board Meeting – Washington, D.C. – June 12-13, 2022
- k. USU Juneteenth Activities – June 17-19, 2022
- l. Northwest Commission on Colleges and Universities Summer Commission Meetings – Reno, Nevada – June 21-24, 2022
- m. USU Board of Trustees Regular Videoconference Meeting – June 24, 2022

4. CONSENT AGENDA

Trustee Gagon made a motion to move item 6.3.3 to the Action Agenda due to wanting more information before voting. Trustee Ferry seconded the motion. Voting was unanimous in the affirmative and the motion passed.

Chair Alder declared the board of Trustees received the following agenda items for review and approval.

- 6.1. Minutes from Board of Trustees Regular Meeting held on April 8, 2022
- 6.2. Minutes from Board of Trustees Closed Meeting held on April 8, 2022
- 6.3. Academic Approvals/Program Review
 - 6.3.1. Summary Page
 - 6.3.2. CSF-Cambridge Preparatory Academy
(Appendix D) [Resolution 22-05-01]
 - 6.3.3. Faculty 402 (moved to Action Agenda)
 - 6.3.4. CAAS-PSC-Specialization MS PhD Plant Science
(Appendix E) [Resolution 22-05-02]
 - 6.3.5. CCA-THEA-Name Change-Theatre Arts Education BFA
(Appendix F) [Resolution 22-05-03]
 - 6.3.6. COE-MAE-Center for Design Mfg. of Advanced Materials
(Appendix G) [Resolution 22-05-04]
 - 6.3.7. EEJCEHS-COMD-TEAL Suspend Deaf Ed-Early
Childhood Composite (Appendix H) [Resolution 22-05-05]
 - 6.3.8. EEJCEHS-COMD-TEAL Suspend Deaf Ed-Elementary Ed
Composite (Appendix I) [Resolution 22-05-06]
 - 6.3.9. EEJCEHS-COMD-TEAL Suspend Deaf Ed-Elementary Ed-
Composite (Appendix J) [Resolution 22-05-07]

- 6.3.10. EEJCEHS-COMD-TEAL Suspend Elementary Ed-Deaf Ed Composite (Appendix K) [Resolution 22-05-08]
 - 6.3.11. EEJCEHS-SPER-Transition Post Masters Post Bacc Certificate (Appendix L) [Resolution 22-05-09]
 - 6.3.12. JHSB-DATA-Cybersecurity Post Baccalaureate Certificate (Appendix M) [Resolution 22-05-10]
 - 6.3.13. JHSB-DATA-Data Analytics Certificate (Appendix N) [Resolution 22-05-11]
 - 6.3.14. JHSB-DATA-Data Engineering Certificate (Appendix O) [Resolution 22-05-12]
 - 6.3.15. JHSB-DATA-Data Technologies Certificate (Appendix P) [Resolution 22-05-13]
 - 6.3.16. JHSB-DATA-Restructure Master of Information Systems Program (Appendix Q) [Resolution 22-05-14]
 - 6.3.17. JHSB-DATA-Web Development Certificate (Appendix R) [Resolution 22-05-15]
- 6.4. Recommendations for Re-appointment to Space Dynamics Laboratory Board of Directors for Three-year Terms
 - 6.4.1. Lt. Gen. John Thompson (Appendix S) [Resolution 22-05-16]
 - 6.4.2. Lesa Roe (Appendix T) [Resolution 22-05-17]
 - 6.4.3. Kathryn Tobey (Appendix U) [Resolution 22-05-17]
 - 6.5. Proposal to Retire University Policy 307 (Appendix V) [Resolution 22-05-19]

Action: Trustee Petersen moved to approve the Consent Agenda. Trustee Niederhauser seconded the motion. Voting was unanimous in the affirmative and the motion passed.

5. ACTION AGENDA

- a. Approval of revisions to 6.3.3. Faculty 402 (Appendix W) [Resolution 22-05-20]

Chair Alder invited Trustee Gagon to inquire about Consent Agenda item 6.3.3 Faculty Code which was in question. Trustee Gagon asked Faculty Senate President Edwards and Provost Galey for a brief summary on the changes made. Provost Galey stated the changes were made to clean up faculty code and redundancies removed. This clean up also reflects that USU in Logan and on Statewide Campuses are “one faculty” across the state.

Action: Trustee Ferry moved to approve the revisions to Faculty 402. Trustee Malouf seconded the motion. Voting was unanimous in the affirmative and the motion passed.

- b. 7.1. Proposal to offer a Bachelor of Science in Environmental Planning CAAS-LAEP-BS Environmental Planning (Appendix X) [Resolution 22-05-21]

Chair Niederhauser presented the new Bachelor of Science degree is bringing the concept of landscaping and environmental planning together. This degree will

not require any additional expenses but instead the department will reallocate monies to cover any new costs at least for the time being. All the academic programs brought to the board are looked at in detail in the Academic Approval Committee meetings.

Action: Trustee Niederhauser moved to approve the proposal to offer a Bachelor of Science in Environmental Planning. Trustee Palmer seconded the motion. Voting was unanimous in the affirmative and the motion passed.

- c. 7.2. Proposal for Name Change of Business and Finance to Finance and Administrative Services (Appendix Y) [Resolution 22-05-22]

Vice President Cowley proposed to change the name of his department from Business and Finance to Finance and Administrative Services due to the former name being outdated as well as to clarify any confusion.

Action: Trustee Ferry moved to approve the proposal for name change from Business and Finance to Finance and Administrative Services. Trustee Clara Alder seconded the motion. Voting was unanimous in the affirmative.

- d. 7.3. Approval of Authorization to Act in Capacity of Vice President for Finance and Administrative Services and Public Treasurer (Appendix Z) [Resolution 22-05-23]

Vice President Cowley indicated because of the name change in action item 7.2., the Board needs to approve a new authorization for himself, Associate Vice President of Finance and Administrative Services Dwight Davis, and Controller Dan Christensen to act as public treasurer on behalf of Utah State University.

Action: Trustee Gagon moved to approve authorization to act in capacity of Vice President for Finance and Administrative Services and Public Treasurer. Trustee Malouf seconded the motion. Voting was unanimous in the affirmative.

- e. 7.4. Real Property Disposition (Bedford, Massachusetts) removed from the agenda. (Appendix AA) [Resolution 22-05-24]

Action: None taken.

- f. 7.5. Proposed Student Building Fee Revenue Bonds, Series 2022 (Appendix BB) [Resolution 22-05-25]

Vice President Cowley reminded the Board this item was presented to the Board of Trustees, Utah Board of Higher Education, and the Utah Legislature previously (last year). This project will allow enhancements to be made on the Maverik Stadium. Parameters of the bond were included in the resolution provided on the meeting agenda. Chair Alder clarified previously the Board had approved the improvements to the stadium and this action approves the bond.

Action: Trustee Petersen moved to approve the proposed student building fee revenue bonds, series 2022. Trustee White seconded the motion. Voting was unanimous in the affirmative.

Chair Alder thanked Utah Board of Higher Education member Wilford Clyde for his years of service on the board.

Action: Trustee White moved to adjourn. Trustee Clara Alder seconded the motion. Voting was unanimous and the meeting was adjourned.

Kent K. Alder, Chair

Janalyn Brown, Interim Secretary

Date Approved

UTAH STATE UNIVERSITY BOARD OF TRUSTEES
Utah State University, Logan, Utah
May 17, 2022

Minutes of the Closed Session of the Utah State University Board of Trustees held via Zoom videoconferencing, commencing at 5:22 p.m.

MEMBERS PRESENT

Kent K. Alder (Chair)	Steven L. Palmer
John Y. Ferry (Vice Chair)	David A. Petersen
Clara Alder	Jacey Skinner
Gina Gagon	Tessa White
Wayne L. Niederhauser	

UNIVERSITY REPRESENTATIVES PRESENT

Janalyn Brown	Interim Secretary of the Board of Trustees
Noelle E. Cockett	President
Dave Cowley	Vice President Finance and Administrative Services
Francis D. Galey	Executive Vice President and Provost
Mica A. McKinney	General Counsel and Vice President, Legal Affairs

Chair Alder conducted the meeting. Personnel and legal issues were discussed.

Action: Trustee Gagon made a motion to adjourn the Closed Session. Trustee Clara Alder seconded the motion. Voting was unanimous in the affirmative.

The meeting adjourned at 5:48 p.m.

Kent K. Alder, Chair

Janalyn Brown, Interim Secretary

Date Approved

UTAH STATE UNIVERSITY BOARD OF TRUSTEES
Utah State University, Logan, Utah
May 17, 2022

Minutes of the Special Meeting of the Utah State University Board of Trustees held via Zoom videoconferencing, commencing at 5:22 p.m.

MEMBERS PRESENT

Kent K. Alder (Chair)	Steven L. Palmer
John Y. Ferry (Vice Chair)	David A. Petersen
Clara Alder	Jacey Skinner
Gina Gagon	Tessa White
Wayne L. Niederhauser	

UNIVERSITY REPRESENTATIVES PRESENT

Janalyn Brown	Interim Secretary of the Board of Trustees
Noelle E. Cockett	President
Dave Cowley	Vice President Finance and Administrative Services
John Ferguson	Faculty Senate President-Elect
Nancy Hanks	Executive Assistant to the President
Francis D. Galey	Executive Vice President and Provost
Bill Plate	Vice President, Marketing and Communications
Larry Smith	Vice President Statewide Campuses
Mica A. McKinney	General Counsel and Vice President, Legal Affairs
Robert Wagner	Vice President Academic & Instructional Technology

OTHER ATTENDEES PRESENT

Carol Amick
Raymond Miyares
William Moonan
Sarah Stanton

BOARD OF TRUSTEES SPECIAL MEETING

Chair Alder called the meeting to order. He welcomed and thanked those present for their attendance.

Action: Vice Chair Ferry moved that in accordance with 52-4-205 of the Utah Code that the Trustees go into a closed Executive Session for the sole purpose of discussing the character, professional competence, or physical or mental health of individuals, pending or reasonably imminent litigation, and the possible sale of real property. Trustee Gagon seconded the motion. Voting was unanimous in the affirmative and the motion passed.

Chair Alder reopened the Special Meeting at 5:50 p.m.

Chair Alder invited discussion on Action Item 3.1. Real Property Disposition (Bedford, Massachusetts). Ray Miyares, attorney for meeting attendees Carol Amick and William Moonan, asked the Board if they had received correspondence earlier that day. USU Vice President and General Counsel McKinney assured Mr. Miyares the university had not received anything

through Associate General Counsel Ryan Brady or through anyone else. Vice President McKinney asked Chair Alder if he needed any additional legal counsel. Chair Alder stated the Board was prepared to move forward with the motion.

Action: Trustee Palmer moved to approve the disposition of property located in Bedford, Massachusetts. Trustee John Ferry seconded the motion. Voting was unanimous in the affirmative and the motion passed.

Chair Alder called for a motion to adjourn.

Action: Trustee White moved to adjourn. Trustee John Ferry seconded the motion. Voting was unanimous and the meeting was adjourned.

Kent K. Alder, Chair

Janalyn Brown, Interim Secretary

Date Approved

24 June 2022

ITEM FOR ACTION

Utah State University proposes establishing a College of Veterinary Medicine that offers a Doctor of Veterinary Medicine degree program.

EXECUTIVE SUMMARY

Utah State University proposes establishing a College of Veterinary Medicine that offers a Doctor of Veterinary Medicine degree program.

RECOMMENDATION

The President and Provost recommend that the Board of Trustees approve the proposal to establish a College of Veterinary Medicine that offers a Doctor of Veterinary Medicine degree program.

RESOLUTION
UTAH STATE UNIVERSITY
BOARD OF TRUSTEES

WHEREAS, Utah State University proposes establishing a College of Veterinary Medicine that offers a Doctor of Veterinary Medicine degree program,

WHEREAS, The proposal will educate veterinarians with expertise relevant to Utah's current and future animal and public health needs, and

WHEREAS, The proposal has been approved by the academic dean, the Educational Policies Committee, and the USU Faculty Senate, and

WHEREAS, The proposal has been approved by the President and Provost of Utah State University;

NOW THEREFORE BE IT RESOLVED, That the Utah State University Board of Trustees hereby approve the proposal to establish a College of Veterinary Medicine that offers a Doctor of Veterinary Medicine degree program and that notification of this proposal be forwarded to the Utah Board of Higher Education of the Utah System of Higher Education.

RESOLUTION APPROVED BY THE BOARD OF TRUSTEES

DATE: _____

**Utah System of Higher
Education New Academic
Program Proposal
Cover/Signature Page - Full
Template**

Institution Submitting Request: Utah State University

Proposed Program Title: Doctor of Veterinary Medicine and College of Veterinary Medicine

Are There New Emphases: Yes [] No [X]

Names of New Emphases (Separated by Commas):

Sponsoring School, College, or Division: College of Agriculture and Applied Sciences

Sponsoring Academic Department(s) or Unit(s): Animal, Dairy and Veterinary Sciences

Classification of Instructional Program Code¹ : 6 - Digit CIP: 01.8001

Min/Max Credit Hours Required of Full Program: Min Cr Hr 175.5 / Max Cr Hr 200

Proposed Beginning Term²: Summer 2024

Institutional Board of Trustees' Approval Date:

Program Type (mark all that apply with an x):

<input type="checkbox"/> (AAS)	Associate of Applied Science Degree
<input type="checkbox"/> (AA)	Associate of Arts Degree
<input type="checkbox"/> (AS)	Associate of Science Degree
<input type="checkbox"/>	Specialized Associate Degree (specify award type ³ :)
<input type="checkbox"/>	Other (specify award type ³ :)
<input type="checkbox"/> (BA)	Bachelor of Arts Degree
<input type="checkbox"/> (BS)	Bachelor of Science Degree
<input type="checkbox"/> (BAS)	Bachelor of Applied Science Degree
<input type="checkbox"/>	Specialized Bachelor Degree (specify award type ³ :)
<input type="checkbox"/>	Other (specify award type ³ :)
<input type="checkbox"/> (MA)	Master of Arts Degree
<input type="checkbox"/> (MS)	Master of Science Degree
<input type="checkbox"/>	Specialized Bachelor Degree (specify award type ³ :)
<input type="checkbox"/>	Other (specify award type ³ :)
<input checked="" type="checkbox"/>	Doctoral Degree (specify award type ³ : DVM)
<input type="checkbox"/>	K-12 School Personnel Program
<input type="checkbox"/>	Out of Service Area Delivery Program <input type="checkbox"/> Attached MOU
<input type="checkbox"/>	Out of Mission Program
<input checked="" type="checkbox"/>	NEW Professional School

¹ For CIP code classifications, please see <http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55>.

² "Proposed Beginning Term" refers to first term after Regent approval that students may declare this program.

³ Please indicate award such as APE, BFA, MBA, MEd, EdD, JD

Changes to Existing Programs or Administrative Units Required (mark all that apply with an x, if any):

<input type="checkbox"/>	Program Restructure with or without Consolidation
<input type="checkbox"/>	Emphases transfer from another program or academic unit
<input type="checkbox"/>	Name Change of Existing Program or Academic Unit
<input type="checkbox"/>	Program transfer to a different academic unit
<input type="checkbox"/>	Suspension or discontinuation of a unit or program
<input type="checkbox"/>	Reinstatement of a previously suspended/discontinued program or administrative unit
<input type="checkbox"/>	Other

Chief Academic Officer (or Designee) Signature:

I, the Chief Academic Officer or Designee, certify that all required institutional approvals have been obtained prior to submitting this request to the Office of the Commissioner.

Please type your first and last name _____ Date:

I understand that checking this box constitutes my legal signature.

**Utah System of Higher
Education Program
Description - Full Template**

Section I: The Request

Utah State University's Department of Animal, Dairy and Veterinary Sciences requests approval to create a College of Veterinary Medicine and approval to offer the Doctor of Veterinary Medicine (DVM) degree.

To be effective on: May 1, 2024

This program was approved by the institutional Board of Trustees on:

**Section II: Program
Proposal**

Purpose

Utah State University (USU) requests approval to offer a Doctor of Veterinary Medicine degree and to establish a College of Veterinary Medicine, effective summer semester 2024.

The state of Utah has supported a School of Veterinary Medicine at Utah State University, which is part of a 2+2 program in collaboration with its regional partner, the Washington State University College of Veterinary Medicine (WSU CVM), since 2012. Currently, the USU School of Veterinary Medicine provides the first two years of coursework at Utah State University's Logan campus, with students transferring to Washington State University for their final two years. The first two years of instruction, taught at USU, are classroom and laboratory-based. The third year consists of pre-clinical coursework and preparation, and the fourth year of clinical rotations. Both are taught at WSU. Students in the current program graduate with a DVM degree from Washington State University.

The objective of this description is to provide a foundation for the proposed plans to expand the existing two-year program into a full, four-year veterinary medicine program, administered through a designated USU College of Veterinary Medicine (USU CVM) that will confer the degree Doctor of Veterinary Medicine (DVM) from Utah State University.

Program Description

The proposed USU CVM will have objectives of: 1) conferring the DVM degree to graduating veterinarians with highly developed practical veterinary and professional skills; 2) educating veterinarians with expertise relevant to Utah's current and future animal and public health needs, particularly serving rural Utah; 3) creating the veterinary expertise and knowledge to support rural development and sustainability, including livestock production and equine industries; and 4) developing a research-intensive faculty group to address the needs for research, development, and expertise in veterinary and comparative medicine and health.

The plan for the USU CVM program is based on accepting 80 new students per year into a four-year program. The increase in student number will be phased in, starting in 2024, when the inaugural class will be comprised of 40 students, followed by admission of 80 students in 2025. To accommodate a total of 320 students in addition to faculty and staff, a new facility will be built and existing clinical facilities expanded. As is typical for all veterinary schools, student applications will be managed through the Veterinary Medical Application Service (VMCAS). In years one through three, students will complete approximately 40 credits of instruction per year (about 120 credits total), in a schedule that will maintain full compatibility with the USU academic calendar. Student instruction is envisioned to be face-to-face with student access to resources and student administration that will be

managed using modern integrative software platforms (web based) to optimize student learning experiences, while minimizing administrative cost.

To operate, all veterinary medical programs *must be accredited* by the American Veterinary Medical Association (AVMA) as a commitment to quality and continuous improvement through a rigorous and comprehensive peer review (see section External Review and Accreditation). While there will be some flexibility in details and organization of the curriculum of the envisioned program, the new school must function within the parameters specified by the AVMA, which ultimately will drive the design of the curriculum (<https://www.avma.org/education/center-for-veterinary-accreditation>).

The provisional curriculum will follow an integrated core/elective model and will be “non-tracking”, meaning that generalized medicine will be taught instead of using early division into large or small animal medicine tracks, to maximize graduates’ professional versatility and likelihood of success. The curriculum in the fourth year will be delivered in collaboration with the veterinary community predominantly from Utah, and will be outcome-based. The general veterinary education curriculum will: provide a solid foundation of comparative veterinary medicine necessary for clinical practice treating all domestic species, ensure a student’s basic understanding of environmental and public health, emphasize good agricultural practices and outbreak control, and involve students in cutting-edge biomedical research. The curriculum will prepare students for rural practice as a foundation for all branches of veterinary specialization and continuing education. In the first three years, core preclinical courses covering the scientific bases of veterinary practice, clinical and anatomic pathology and medicine, as well as practica and laboratory-based clinical courses and electives will prepare students for clinical rotations in the fourth year. Overall learning emphasis will be focused on four areas: agricultural animal health, equine health, public health, and small animal practice. At the end of the third year, all students will take the North American Veterinary Licensing Exam (NAVLE), with the goal that 100% of students will pass this qualifying exam.

The fourth year of the curriculum is entirely dedicated to student clinical rotations and will be based on a “Distributed Veterinary Teaching Hospital” (DVTH) model. In the DVTH, clinical training will be provided in on-campus (20%) and off-site (80%) rotations. In this model, core clinical training therefore occurs primarily at non-centralized locations, where students are trained in private veterinary clinics by CVM clinical faculty in collaboration with veterinary practitioners, who have structured formal relationships with the CVM, and who will act as adjunct instructors. Clinical resources will be provided by the USU CVM in new and existing facilities on USU’s Logan campus, at the Utah Veterinary Diagnostic Laboratory, the USU Animal Science Farm, and by CVM faculty working with partnering organizations within the DVTH. These off-site locations provide access to a variety of clinical experiences and cases, and exposure to different working environments, leading to enhanced competencies and awareness of different methods and styles of performing veterinary work. Private veterinary businesses providing student learning experiences under the training and guidance of CVM faculty will receive set financial incentives and USU CVM quality certification.

Compared to the traditional veterinary medicine training model, the DVTH fosters improved immediate job-readiness of graduates founded on competency-based learning. In addition, the DVTH offers greater cost control because it eliminates the need for costly renovations and updates that are a typical necessity of a brick-and-mortar teaching hospital after the first 10 years of operation. Through the DVTH, skilled medical professionals are placed in communities throughout the state, including rural ones, which enhances veterinary services available to Utah citizens, animal industries, and state agencies. Another advantage of the distributed clinical model is that it will complement, but not compete with, existing veterinary practices in Utah.

Consistency with Institutional Mission

The mission of the new USU CVM will be to provide professional veterinary medical education; engage in basic and clinical biomedical research; and serve the public through continuing education, disease outbreak control, and outreach to meet the needs of the state and people of Utah.

This mission is closely aligned with the mission of Utah State University: to be one of the nation's premier student-centered land-grant and space-grant universities by fostering the principle that academics come first, by cultivating diversity of thought and culture, and by serving the public through learning, discovery, and engagement.

The mission of the proposed USU CVM is therefore closely aligned with USHE policy R312 (<https://ushe.edu/ushe-policies/policyr312/>).

Section III: Needs Assessment

Program Rationale

USU has been operating a shared veterinary school program, created by the Utah State Legislature in 2011, for a decade. Despite its outstanding success, the existing 2+2 program has not been able to satisfy either the workforce demand in the state, or the demand for student seats in a DVM-granting program. According to the AVMA, there is a nationwide 2:1 ratio of students seeking admission to a veterinary medical program to the number of available seats. An important goal is therefore to provide a higher number of Utah students with access to veterinary medical education that addresses the increasing shortage of veterinarians in Utah, the Intermountain region, and the nation. Another benefit is that Utah resident students who are accepted into the current 2+2 program physically move to Pullman, WA, after their first two years in Logan, which is a logistical and financial burden to the students.

Furthermore, students, who complete the first two years of the program at USU and then move to Pullman (WA) for the remaining two years of the program, do not count as USU graduates in the USU statistics of student outcomes. The university is not credited for the success of these students because they graduate with a DVM degree from Washington State University. All of these problems will be addressed by the proposed four-year program.

Additional Impacts. The current program has the experience and expertise to successfully mature into a full four-year program that will be able to meet the needs of prospective students, agricultural producers, veterinarians, and other stakeholders, while providing additional benefits to the state of Utah. Financially, the new program will annually capture the approximately \$3.7M in tuition that currently leaves the state and gain an additional estimated \$10.9M in tuition.

Research: Because complete, freestanding colleges of veterinary medicine are inherently deeply grounded in biomedical research, their host institutions tend to be the most competitive recipients of federal research funding among land-grant universities. On average, every \$20M invested by states into schools of veterinary medicine realizes a return of \$48M in research dollars alone (JAVMA.241.7.869). Federally funded research also results in added opportunities for students to get involved in life sciences research and contributes to graduate programs at the university.

Job Creation: The new school will address the shortage of veterinarians in Utah (see Labor Market Demand section below). In addition, besides providing veterinary education, the CVM has the potential of attracting highly qualified researchers and health professionals, as well as biomedical industry businesses to Northern Utah, and will thus represent a significant economic generator for the entire state of Utah.

Public Health Support: In line with the modern concept of "One Health,"— an approach emphasizing the interconnectedness of animal, human, plant, and environmental health — animal

health is public health. The National Institutes of Health reports that 61% of human pathogens originate in animals. This is true of the SARS-CoV-2 virus that caused the COVID pandemic, brucellosis, hantavirus, Lyme disease, West Nile virus, and rabies. The college's faculty will build collaborations with colleagues in human medicine and bolster Utah's bioscience and biomedical industries.

Food Security: The new school will provide additional expertise in agricultural and animal science to more adequately protect Utah's food and crop sources. Agriculture in Utah is a \$1.82 billion industry. Animal agriculture is \$1.28 billion of this, with 25 of the state's 29 counties reporting livestock as the dominant facet of their agricultural economy (2020 USDA-NASS Report).

Wildlife and Natural Resources: Wildlife species are important to recreation in the region and to the ecosystems they inhabit. As the state's population continues to grow, people move into areas that were previously wildlife habitat. And as more people visit Utah to experience national parks and wilderness areas, people will increasingly have contact with wildlife. Veterinary medical expertise is a critical factor in protecting people and animals.

The new CVM is expected to raise educational attainment and the quality of veterinary care in Utah, while enhancing the biomedical infrastructure throughout the state. Benefits to Utah communities attributed to the envisioned model of distributed veterinary clinical teaching are laid out above (in the Program Description section).

Labor Market Demand

It is relevant to look at the labor market demand from a national, regional, and local perspective. There are just 33 accredited veterinary medical colleges in the United States. By comparison, there are 155 accredited MD-granting institutions and 37 accredited DO-granting institutions in America. As such, the formation of an additional accredited DVM-granting college of veterinary medicine has the potential to make a substantive impact on the available labor pool of veterinarians.

According to the U.S. Bureau of Labor Statistics (2020), employment growth rate for veterinarians is classified as "much faster than the average", with a projected 17% rate of growth between 2020 and 2030. This rate of growth is double that of all occupations which are expected to grow at just 8%. The AVMA reinforced this projection by noting that the market for veterinarians continues to see signs of positive economic movement with increased incomes and a low unemployment rate for the veterinary sector of 0.8%, well below the 3.9% national unemployment rate reported at the end of 2019. The Association of American Veterinary Medical Colleges (AAVMC) stated that 94.6% of graduating veterinarians reported having found full-time employment in 2020. Additional indicators suggest that nearly 100% of all graduates found employment or additional schooling opportunities (residencies and internships) shortly after graduation.

Long-term occupational forecasts (2018-2028) from the U.S. Bureau of Labor Statistics project 5,100 annual openings. This projection is exacerbated by an additional 4,539 veterinary full-time equivalents (FTEs – 40 hours per week equals one FTE) needed to backfill a six-year negative underemployment trend (this was measured as the desire to increase/decrease hours worked for an equivalent increase/decrease in compensation). In effect, veterinarians are working too much and want to cut back their hours, but are not able to find enough help to do so. This suggests that there are 8,000-10,000 FTE positions available nationally for veterinarians to fill currently. The AVMA reported that in 2019 there were only 3,187 U.S. citizen graduates from U.S. based accredited institutions (**Figure 1**). Another 1,530 U.S. citizens were trained and graduated from international veterinary programs. The presumption is that most of the foreign-trained practitioners who are U.S. citizens will return to the U.S. (though there is no supporting data to confirm this). The total number of U.S. citizen graduates meet approximately half of the current need. Irrespective of the interest in backfilling open positions, there are not enough U.S. citizens being trained globally (4,100-4,700) to

fill the demand within the United States (5,100). This issue is not related to interest in the profession, but rather to a lack of seats available to train the number of veterinarians needed.

Looking at local and regional labor market demands, the U.S. Department of Labor also compiles industry information for all business and employment sectors at a state level and conveys the resulting comparison as a location quotient. Location quotients compare the concentration of an

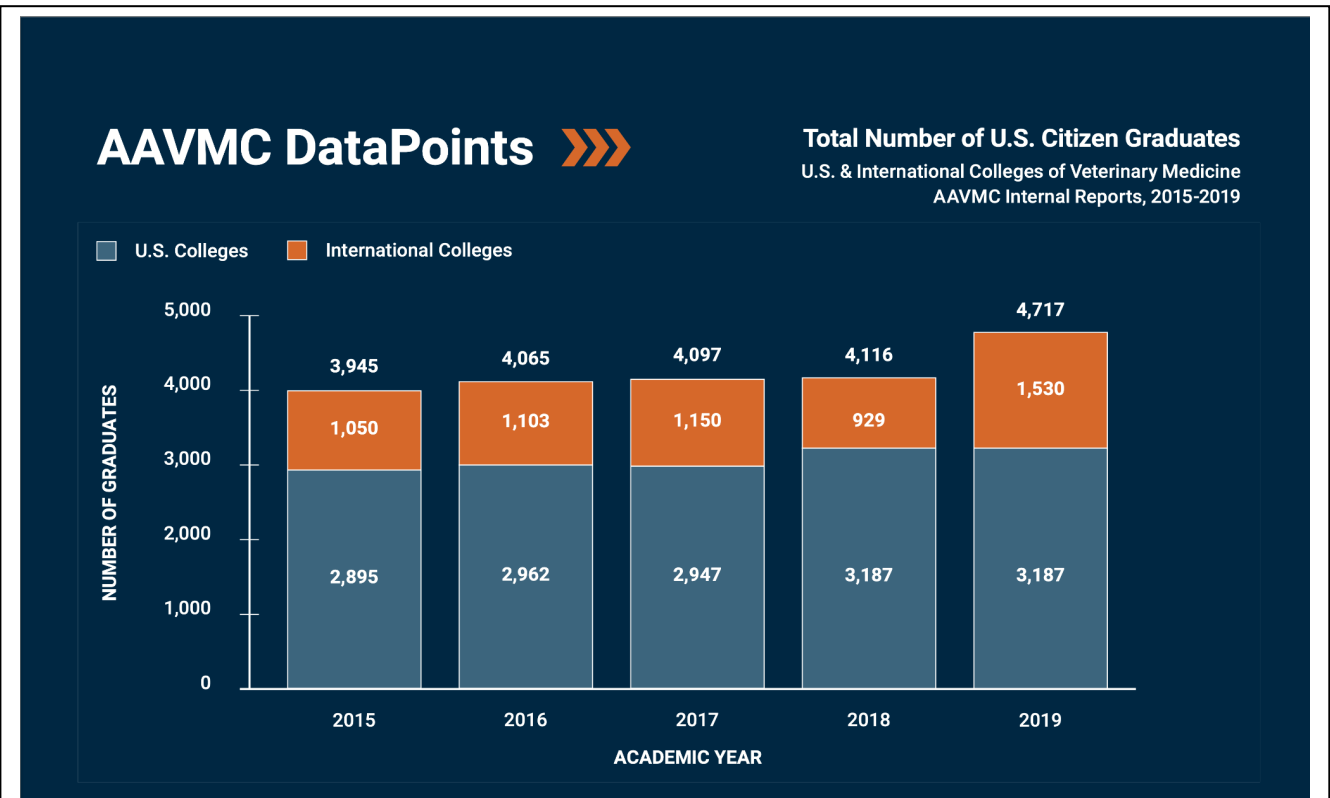


Figure 1: Total Number of U.S. Citizen Veterinary Graduates

Note: U.S.-based institutions only graduated 3,187 of the 4,717 total graduating veterinarians. International programs are increasing enrollments to compensate for the need at a faster pace than U.S.-based institutions.

industry within a specific area to the concentration of that industry nationwide. Location quotients are ratios that allow an area's distribution of employment by industry, ownership, and size class to be

Rank	State	Employment	Employment / '000 jobs	Location Quotient	Hourly mean wage	Annual mean wage
1	South Dakota	430	1.05	1.97	\$42.03	\$87,420
2	Montana	460	1.02	1.92	\$39.39	\$81,940
3	New Hampshire	620	1	1.88	\$54.03	\$112,390
4	Maine	550	0.96	1.82	\$48.03	\$99,910
5	Vermont	260	0.94	1.77	\$50.90	\$105,880
⋮	⋮	⋮	⋮	⋮	⋮	⋮
42	Utah	670	0.45	0.85	\$47.04	\$97,830
⋮	⋮	⋮	⋮	⋮	⋮	⋮
48	Nevada	490	0.392	0.74	\$47.97	\$99,780

Figure 2: Employment, Location Quotient, and Wage Data Comparison

compared to a reference area's distribution. The reference industry is always the all-industry, all-ownerships total for the local area, and for the nation. If an LQ is equal to 1, then the industry has the same share of its area employment as it does in the nation. An LQ greater than 1 indicates an industry with a greater share of the local area employment than is the case nationwide. Utah currently has 15% fewer veterinarians to support the population than the national average as it has an LQ of 0.85 (**Figure 2**) ranking it 42nd among all states.

Figure 2 also displays the states with the highest employment per capita and LQ for comparison to the Utah numbers. Nevada ends up being ranked 48th in the nation, even though the annual mean wage is higher than in Utah.

The U.S. Department of Labor state employment projections for Utah also projects a 73% change in the number of veterinarians needed over the next decade to serve the population. This projection equates to an additional 560 new positions needing to be filled in the state over the next decade, or an average of 56 per year. Utah had the fastest growing population in the nation, growing 18.4% over the last decade. With a population size of 3.27 million people (as of July 2019, www.census.gov), Utah is ranked 30th in the nation for population making it larger or similar in size to Oklahoma, Iowa, Kansas, Missouri, and Oregon, which all support veterinary colleges in their state.

Student Demand

The rigors and responsibilities of modern veterinary medicine require the best and the brightest students. The AAVMC conducts short- and long-range examinations of the profession's applicant pool, ensuring the availability of a stream of highly qualified applicants. The applicant pool for those aspiring to become veterinarians remains strong, in spite of highly publicized veterinary economic challenges related to salaries, workforce opportunities, tuition costs, and student debt (AVMA, Action Agenda 2019). Across all AVMA Council on Education-accredited programs of veterinary medicine, which include both U.S. and international schools, there is a 2:1 ratio of applicants to available first-year seats (**Figure 3**). This upward trend has been consistent and is expected to remain similar for the foreseeable future.

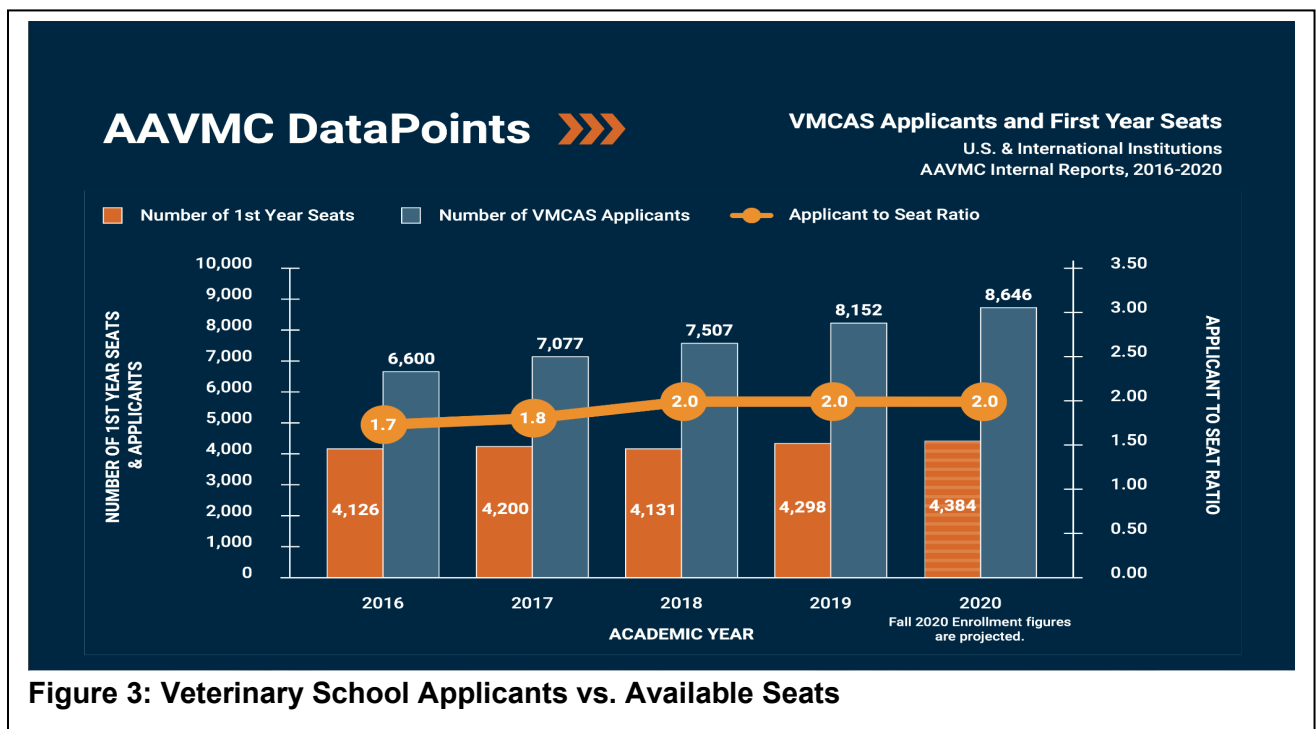


Figure 3: Veterinary School Applicants vs. Available Seats

The current 2+2 Washington-Idaho-Montana-Utah (WIMU) program at USU accepts approximately 20 Utah resident and 10 non-resident students per year. This number was determined based on space limitations at both Utah State University in years one and two of the program, and at

the Washington State University College of Veterinary Medicine for years three and four of the program, and estimates of local labor market demand at the time of the program's start a decade ago. Though from a global perspective, approximately 50% of applicants are able to be placed into veterinary programs, the acceptance rate is substantively different within the local area. Over the past four years, less than one third of the students applying from Utah have been able to participate in the WIMU program due, in part, to space limitations. Individuals from Nevada, Idaho, New Mexico, Arizona, and Wyoming fare much worse, even with WICHE support. These individuals must seek more expensive educational opportunities elsewhere as non-resident students, which includes becoming part of the 1,530 U.S. citizens per year being educated in foreign veterinary programs as illustrated in **Figure 1**, above. Over the same period of time, total non-resident applications have averaged 1,001 per year, for the 35 available seats 25 of which are at WSU and 10 at USU.

Similar Programs

Besides the current regional WIMU 2+2 program that is proposed for expansion in this request, there is currently no other veterinary medical school that confers a DVM degree in the state of Utah, nor is there one in Nevada, Wyoming, or New Mexico. Montana and Idaho participate in the current WIMU program with WSU and support 10 students each. *There is currently no standalone CVM in the Intermountain West.* **Figure 4** shows the distance from Logan, UT to each of the institutions currently granting DVM degrees. The map in **Figure 5** shows the distribution of the closest veterinary schools surrounding Utah and the projected region of influence, need, and opportunity.

<u>School Name</u>	<u>City/State</u>	<u>Distance from USU</u>
Colorado State University	Fort Collins CO 80523	446 miles
Washington State University	Pullman, WA 99163	590 miles
Oregon State University	Corvallis OR 97331	735 miles
Midwestern University	Glendale, AZ 85308	735 miles

Figure 4: Distance from Logan, UT to the Nearest Established CVM.

Collaboration with and Impact on Other USHE Institutions

All USHE institutions offer pre-veterinary advising for students pursuing a bachelor's degree in anticipation of application to professional veterinary school. Therefore, all USHE institutions (and private colleges and universities in Utah) will benefit from increased student access to a school of veterinary medicine. This is because the number of available seats will increase to a minimum of 40. Each applicant, regardless of USHE institution attended, has been and will continue to be considered for admission using the defined criteria, and will be evaluated by a Utah-based admission committee working under the director of admission. In the 10 years of its existence, the 2+2 WIMU program has recruited students from all colleges and universities in Utah into the program (see **Figure 6**). Thus, there will not be an advantage for students to do their undergraduate work at any one institution of higher education in the state. The current 2+2 program at USU already has a strong network of communication with pre-veterinary education advisors in Utah and this will only be enhanced by the

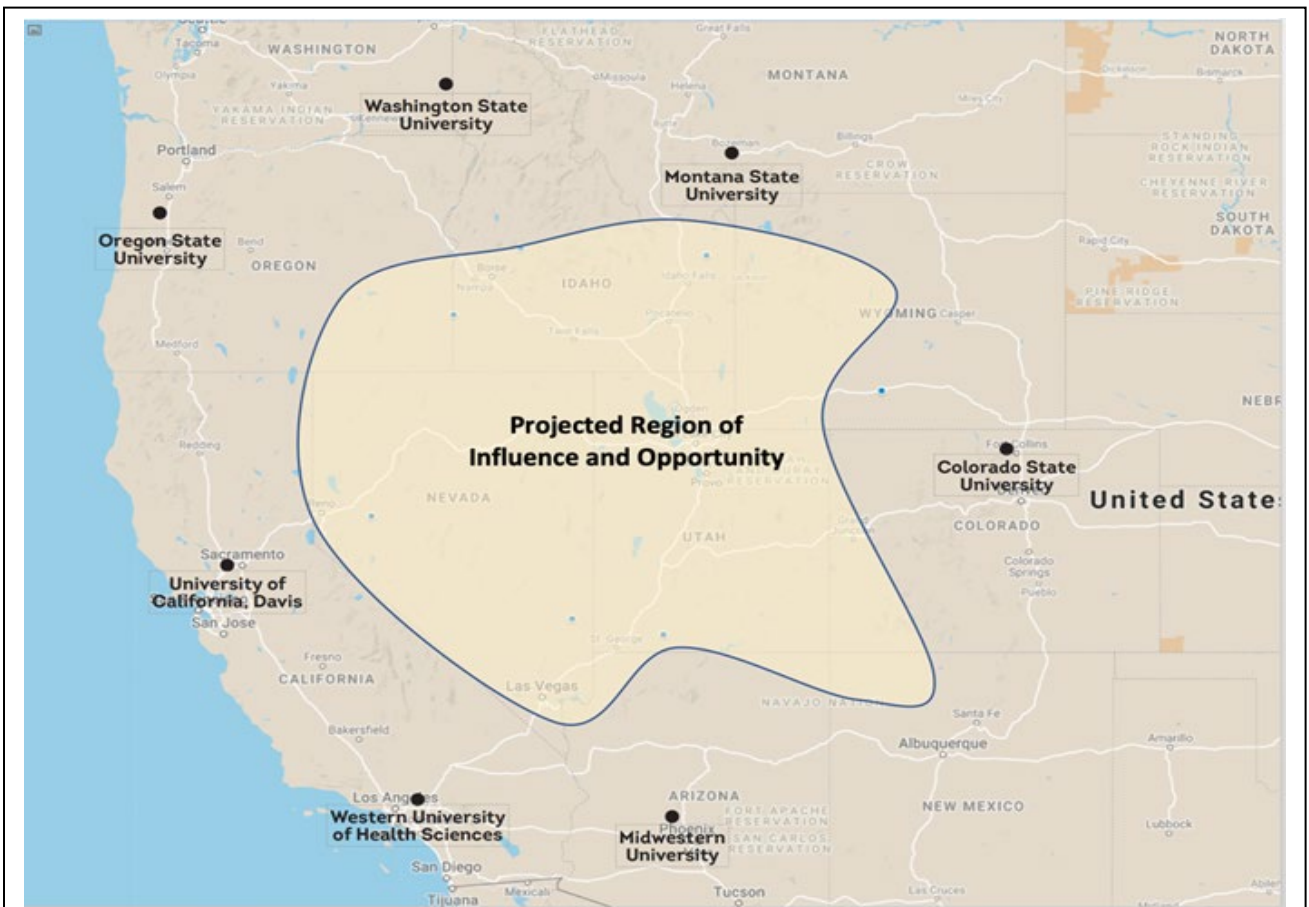


Figure 5: Map of the Nearest Veterinary Schools Surrounding Utah. There is currently no CVM in the Intermountain West. Montana State University is shown here, but actually has a 1+3 program with WSU within the WIMU program, where only the first year is taught at MSU.

outreach planned for the expanded program. In the years since 2016, annual conferences have been held at USU where pre-veterinary advisors from all colleges in Utah were invited to visit and to bring students along who are interested in becoming veterinarians. The events provide information about all aspects of the program, such as prerequisite coursework and admission application procedures so that students at each institution can successfully complete undergraduate requirements and compete for admission. For these events, all travel and boarding, as well as costs for food have been covered by USU. This “Prevet Advisor Conference” program has resulted in very successful and long-standing relationships with student advisors from colleges and universities across the state. Building on this successful model, future collaborations with other USHE institutions will be expanded and enhanced.

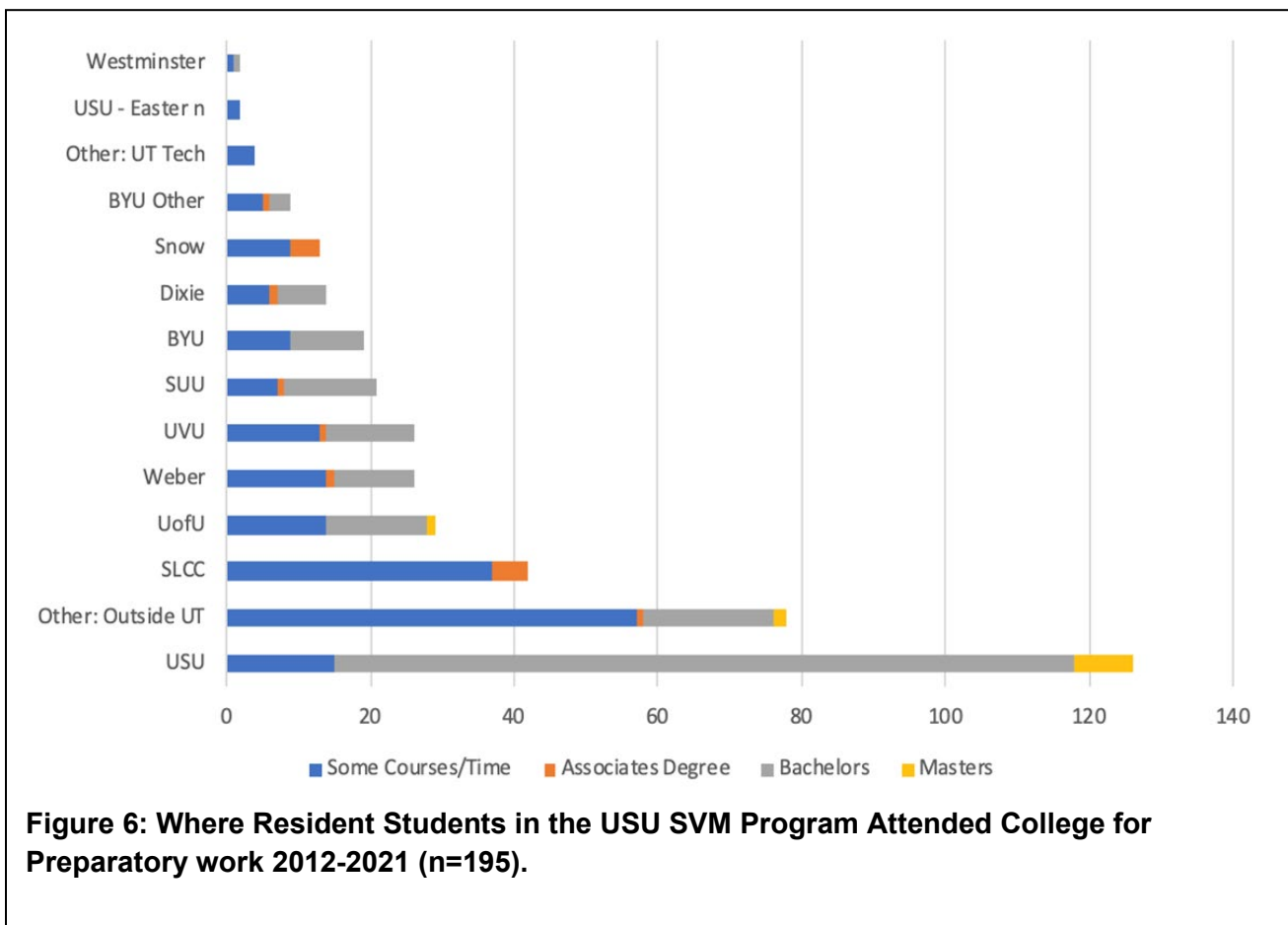
Additionally, the chair of the USU Admissions Committee will make at least an annual visit to each of the USHE and private campuses that offer pre-veterinary programs prior to the application cycle and will interact with pre-veterinary students to answer questions and provide information regarding admission. These visits will also provide additional opportunities for face-to-face interaction with each school’s pre-veterinary advisor to receive feedback regarding concerns or emerging problems regarding admission, recruitment of local students, or other concerns/suggestions regarding access to the veterinary program.

The USU School of Veterinary Medicine’s program coordinator will work closely with pre-veterinary advisors to articulate first-year veterinary school coursework, which will provide opportunities for undergraduate students to fulfill fourth-year requirements for completion of their baccalaureate degree. This would allow students from Utah system campuses — if admitted to veterinary school after their third year, but prior to completing their baccalaureate degree — an opportunity to enter veterinary school at USU and apply their first year of veterinary coursework to baccalaureate degree completion at their original undergraduate degree institution. This would allow

some students to reduce the amount of time required to earn baccalaureate and Doctor of Veterinary Medicine degrees by one year.

Benefits: Colleges of veterinary medicine are often a strength of land-grant universities (as is true for UC Davis, Colorado State, Washington State, and others). This is because of the necessary training of their faculty members in the biomedical and agricultural animal sciences combined with the high degree of commitment demonstrated by their students. Teaching, research, and Extension programs are strengthened by the influx of faculty members, many of whom hold dual degrees (DVM, Ph.D.) and are board certified in their areas of specialty.

In addition to the professional program, graduate education is enhanced, as veterinary college faculty members are expected to have active research programs and be at the forefront of scientific discovery. Recruitment of a larger number of students into the proposed four-year program will further increase demand for qualified students from all of Utah’s colleges and universities. Building structured formal collaborations with these schools to prepare larger numbers of students for admission to the new veterinary medicine program will be a priority. The greater demand for well-prepared applicants should have a positive impact on the size and scope of pre-veterinary student programs offered at all Utah colleges.



Additional positive impacts of the proposed program on USHE institutions can be expected from substantially enhanced opportunities for research collaborations among faculty in the proposed USU CVM and researchers at other universities, including the University of Utah and its medical school. The concept of One Health has given direction to interdisciplinary, science-based research solutions to many contemporary problems that affect all people, such as food security, disease outbreak control, and public health. One Health is a collaborative, multisectoral, and transdisciplinary approach — working at the local, regional, national, and global levels — with the goal of achieving optimal health outcomes for interconnected people, animals, plants, and their shared environment (<https://www.cdc.gov/onehealth/index.html>).

External Review and Accreditation

The American Veterinary Medical Association Council on Education (AVMA COE) accredits colleges and schools of veterinary medicine (<https://www.avma.org/education/accreditation-veterinary-colleges>). The current USU School of Veterinary Medicine has been conducted under the umbrella AVMA COE accreditation of the Washington-Idaho-Montana-Utah Regional Program in Veterinary Medicine under the auspices of WSU. The new program proposed here will have to be reviewed and accredited by the AVMA COE to ensure compliance with national and international standards. The AVMA provides clearly defined expectations of graduate competencies and sets rigorous parameters within which the school must function for the accreditation process to proceed. Stipulations laid out by the AVMA will therefore drive the design of the curriculum and of learning objectives and outcomes. As postulated by the AVMA, each veterinary school seeking accreditation has to fulfill strict criteria outlined in 11 standards. The official policies of the AVMA COE specify that each accredited CVM must be a stand-alone college, with its own financial budget, and the dean must hold a DVM degree.

Timeline: The newly appointed dean of the USU CVM will appoint an AVMA COE liaison committee, develop a plan for the AVMA COE self-study, and submit a request for a Letter of Reasonable Assurance from the AVMA COE. Once granted, the reasonable assurance will be valid, with semiannual reports to the AVMA COE, until provisional accreditation is granted when the first class is admitted in 2024. After AVMA COE site visits in years one and four of the program, full accreditation will be granted. Thereafter, veterinary schools must undergo accreditation by the AVMA COE, including a site visit by a delegation from the COE, every seven years to maintain accreditation. The pathway to accreditation is publicly available on the AVMA website (<https://www.avma.org/education/accreditation/colleges/pathways-accreditation>).

Section IV:

Program Details Graduation Standards and Number of Credits

The proposed new program within the framework of a new College of Veterinary Medicine will be a Professional Practice degree, as defined in R401-3, point 3.1.9.1. “Professional Practice Doctoral Degrees. Provide knowledge and skills for credentials or licenses required for professional practice. Pre-professional and professional preparation for degrees such as the juris doctorate and medical doctorate requires at least six years of full-time study.”

The veterinary medical doctorate (DVM), the degree that will be conferred by the proposed new program, requires at least four years of full-time study, with an average of 185 credits of instruction. Graduation standards are set forth by the AVMA COE. (See sections Program Description and External Review and Accreditation above).

Admission Requirements

The AAVMC works closely with admissions personnel at member institutions and sponsors workshops, conferences, meetings, and related symposia to support admissions and recruitment. The AAVMC has a national recruitment strategy to help identify, inspire, and recruit those students best suited for careers in veterinary medicine. Additionally, the AAVMC’s Veterinary Medical College Application Service (VMCAS) is continually upgraded to provide prospective students and member institutions with highly efficient student recruitment and applicant processing services.

The plan for USU CVM admissions is to use a phased approach to develop a full cohort of students by year four of the program (see **Figure 7**). This will accommodate instructional resources

that will be limited before the new building becomes available. The size of the inaugural class of the USU CVM will be 40 with a target of 25 resident students and 15 nonresident students. Concurrently, the WIMU program will have three cohorts of approximately 30 students each in years two, three, and four of that program. The second incoming class is expected to be a full complement of students: 40 resident and 40 nonresident incoming students. By year seven, the new program will be fully functioning with a projected student body of 320 students composed of 160 resident and 160 nonresident students (**Figure 7**).

Typically, a minimum of three years of undergraduate education is completed prior to entering a professional DVM education program, and most students complete a bachelor's degree. However, accelerated tracks without students obtaining a bachelor's degree may be possible. Admission requirements may change as details of the curriculum are developed.

		Planning Yr 1 2022-23	Planning Yr 2 2023-24	Program Yr 1 2024-25	Program Yr 2 2025-26	Program Yr 3 2026-27	Program Yr 4 2027-28	Program Yr 5 2028-29
Phasing In:		Planning Yr 1	Planning Yr 2	Program Yr 1	Program Yr 2	Program Yr 3	Program Yr 4	Program Yr 5
Enrollment by Class USU SVM	Freshman			40	80	80	80	80
	Sophomore				40	80	80	80
	Junior					40	80	80
	Senior						40	80
	Enrollment	0	0	40	120	200	280	320
Phasing Out:		Planning Yr 1	Planning Yr 2	Program Yr 1	Program Yr 2	Program Yr 3	Program Yr 4	Program Yr 5
Enrollment by Class WIMU (2+2) Tuition support is provided to WSU for 20 resident and 10 non-resident per class in their junior and senior years of the current program.	Freshman	30	30					
	Sophomore	30	30	30				
	Junior	30	30	30	30			
	Senior	30	30	30	30	30		
	Enrollment	120	120	90	60	30		
Residency Status:		Planning Yr 1	Planning Yr 2	Program Yr 1	Program Yr 2	Program Yr 3	Program Yr 4	Program Yr 5
	Resident:	80	80	85	95	125	145	160
	Non-Resident:	40	40	45	75	105	135	160
Total Enrollment All Classes:		120	120	130	180	230	280	320

Figure 7: Projected Student Admission.

The AVMA COE states:

Sections 7.1-7.3 of the AVMA COE: The college shall have a well-defined and officially stated admissions policy.

For an application to the USU CVM program to be considered, it must include: a) a complete Veterinary Medical College Application System (VMCAS) application which includes three or more letters of reference with one from a licensed DVM; b) a complete supplemental application; and c) general Graduate Record Examination (GRE) permissible scores that are less than five years old. Pre-professional course requirements are based on semester credit hours and are outlined in section 7.7 below.

Sections 7.4 – 7.6 of the AVMA COE: The policy shall provide for an admissions committee, a majority of whom shall be full-time faculty members. The committee shall make recommendations regarding the students to be admitted to the professional curriculum upon consideration of applications of candidates who meet the academic and other requirements as defined in the college's formal admissions policy.

The Office of Admissions will consist of a director of admissions, a recruiter, and an admissions staff assistant to facilitate the recruitment and selection of qualified candidates to the program. An admissions committee shall consist of the director of admissions, faculty, UVMA representatives, and

staff, with the majority of members coming from the faculty ranks. The purpose of the committee is to review and then recommend applicants for positions within the program. The number of committee members will vary depending on the applicant load. Final selection of candidates to the program remains with the college's dean

Section 7.7 of the AVMA COE: Subjects for admissions shall include those courses prerequisite to the professional program in veterinary medicine, as well as courses that contribute to a broad general education. The goal of pre-veterinary education shall be to provide a broad base upon which professional education may be built, leading to lifelong learning with continued professional and personal development.

Pre-Professional Course Requirements

1. CORE requirements – physical and biological sciences	43 Total Credit Hours
a. Biology with lab (USU: Biology 1610, 1615, 1620, & 1625)	8 credits
b. Inorgan. Chem. with lab (USU: Chem 1210, 1215, 1220, 1225)	10 credits
c. Organic Chem. with lab (USU: Chem 2310 & 2315)	5 credits
d. Biochemistry (USU: Chem 3700)	3 credits
e. Mathematics (USU: Math 1050)	4 credits
f. Physics with lab (USU: Phys 2010 & 2015)	5 credits
g. Genetics (USU: Biol 3060)	4 credits
h. Statistics (USU: Stat 2000)	4 credits
2. General Education Requirements*	24 Total Credit Hours
a. English composition / Communication	6 credits
b. Critical Thinking / Reasoning	3 credits
c. Arts and Humanities / Social Science / History, etc.	15 credits

*If an applicant has received or will receive a bachelor's degree prior to matriculation, the General Education Requirements are considered fulfilled regardless of credit hours.

Section 7.8 of the AVMA COE: Factors other than academic achievement must be considered for admission criteria.

Other factors include information from the VMCAS and USU CVM Supplemental Application and the interview:

- Veterinary, animal, and research experience
- Extracurricular activities and interests
- Community service/enhancement
- Honors, awards, scholarship, leadership
- Letters of recommendation
- Interview
- Personal statement/essays
- Integrity and ethics
- Written and oral communication skills
- Maturity (poise and professionalism)
- Respect for life
- Compassion and empathy
- Reserve capacity
- Problem-solving skills
- Curiosity, lifelong learning
- Enthusiasm for, motivation, and understanding of the profession

Curriculum and Degree Map

This is not applicable to a professional degree program.

Section V: Institution, Faculty, and Staff Support

Institutional Readiness

Physical Facilities: Research, education, and service activities will be carried out at three major campus sites. The new building on USU's main campus will house classrooms, teaching laboratories, a large surgery suite, faculty and administrative staff offices, research laboratories, and study and conference rooms. Approximately 75% of faculty and support staff will be based in the new facility. Large animal educational experiences during the first three years of the program will be provided at the Matthew Hillyard Animal Teaching and Research Center at the USU Animal Science Farm located approximately eight miles south of the main campus. Anatomic Pathology laboratory training will be performed at the UVDL adjacent to the USU main campus (950 E 1400 N). The new college will be headquartered in a new 133,000 sq. ft. (gross area) building with at minimum a Gold LEED (Leadership in Energy and Environmental Design) certification, in accordance with university policy and for compatibility with future energy requirements. The facility will be located at one of three sites currently under discussion at the periphery of USU's Logan campus.

Classroom space is critical for instruction in the first three years, where student cohorts/classes in a typical veterinary program each stay together in a single classroom for an entire year. To be flexible, each class in years one through three of the program will have a dedicated 2,400 sq. ft. classroom that can be divided into two separate classrooms that can each accommodate 45-50 students. Each of the three major classrooms will, therefore, accommodate 80-85 veterinary students in addition to approximately 15 graduate students. Four smaller, 600 sq. ft. classrooms will be used for teaching elective classes and practica. Furthermore, this facility will have eight small rooms (300 sq. ft. each), with unidirectional mirrors that allow for observation from a small adjacent room on the other side of the mirror, for teaching communication and clinical diagnostic courses. These rooms may also be used for anesthesiology and small animal surgery training, and other activities requiring small group teaching.

Teaching laboratories will be available in the new facility to accommodate core courses throughout the curriculum. The anatomy laboratory will have a capacity of 48 students (1980 sq. ft.) and will be adjacent to a cadaver storage room (660 sq. ft.) and a cadaver preparation room (660 sq. ft.). The new facility will also have a computer laboratory and a radiology laboratory (1650 sq. ft. each; 48 students per laboratory). These two spaces will be used for the anesthesia and radiology courses as well as computer-based assessments in other courses. These spaces can also serve as open computer laboratories. There will be a universal wet laboratory with adjacent autoclave, storage, and preparation rooms (48 students, 3300 sq. ft.) for teaching bacteriology, parasitology and clinical pathology courses. This space will be divisible to enable smaller, 24-person laboratories if needed. A simulation laboratory (20 students, 1100 sq. ft.) with a dry and a wet area and access from the outside will be available for preclinical principles of surgery, anesthesiology, junior surgery and theriogenology training.

Surgery suite will serve as a large open area for clinical instruction, including principles of surgery and junior surgery. This area will accommodate 48 students at 12 tables. Each station will have a surgery table for small animals, one anesthesia machine, an LCD monitor, and a light above the table. The surgery suite will also have support spaces for animal holding (kennels), pre-surgery

animal preparation, scrub-in, post-operation recovery, instrument sterilization, a dispensary room, a storage room, and a small laundry room. There will also be an area dedicated to model storage for the Principles of Surgery course. There will also be gender-neutral private lockers and showers.

Research laboratories with open floor plans comprised of 20 modules (660 sq. ft. each) will be able to accommodate at least 20 principal investigators (PIs), who are all expected to be CVM faculty with research appointments. Flexible modular laboratory design, with individual work benches with two to four knee holes each, can be assigned to PIs based on the size of individual research programs. Laboratory support spaces including a cold room (4C), sterile work benches, fume hoods, storage of flammable and corrosive material, autoclave rooms, -80C freezer rooms, and a microscopy room will be shared by researchers (approximately 440 sq. ft. per PI). Student researchers and research staff will have separate desk space in cubicles adjacent to the research laboratory area.

Administration and office spaces for faculty and senior staff will be created in a manner to allow for flexible use, including some office cubicles. The new facility will have approximately 60 offices for faculty, staff and administrators including two shared offices for adjunct faculty (7680 sq. ft. total). Support staff at the dean and department head's offices will have access to 12 workstations (960 sq. ft. total). The dean's suite will also have common use areas such as break and copy rooms, storage, a reception area, and two conference rooms (1520 sq. ft.). Each of the two department suites will have a copy and break room and a conference room (800 sq. ft.).

Common rooms accommodate faculty and staff for informal interaction to address the wellness focus of the program. There will be 10 collaboration rooms (120 sq. ft. each) for meetings of up to six people with monitors and computer docking capabilities, one student lounge/forum room (1800 sq. ft.), and a library/reading room (1200 sq. ft.). The building's eating area will have sufficient seating to accommodate at least 50 people to allow a central common area for informal meetings, planning, study, and student/faculty interaction. Adjacent to the eating area there will be grab-and-go services and vending machines as well as space for students to sell veterinary related merchandise.

Parking space will be adjacent to the building to accommodate students, faculty, staff, and clinical requirements (because of the distributed model, which requires faculty and student mobility, and to allow public access to the envisioned small animal practice).

As a future development, a small and large animal veterinary specialty clinic are envisioned, which would support local veterinarians and provide services to the local community after hours and on weekends, while providing students with clinical experiences under the supervision of CVM veterinary practitioners. This future clinic will provide services not typically offered by local practitioners, including advanced imaging, ophthalmology, cardiology, and oncology. The clinic could be planned as an annex, or a separate small building adjacent to the main building.

Students: The current program already has extensive experience with implementation of the first two years of the envisioned four-year program. Since 2012, there have been 304 students admitted into the current 2+2 SVM program at USU representing nine classes of students. During this time, only five students have chosen to drop out or were not allowed to complete the program, which equates to a 1.8% attrition rate.

Communications with the USU SVM indicate that all graduating students have been able to pass the North American Veterinary Licensing Examination (NAVLE), and find employment in the veterinary profession. Data from regional sites compared to the WSU cohort are considered to be indistinguishable in their performance as measured over time. However, the most recent statistics indicate that Utah-based students are performing very well in comparison with all students in their third year of the program. During the third year of the program, all regional campuses participate in courses at WSU and the experience can be considered equivalent. Prior to the third year, students at regional sites are taught using the same learning objectives and standards, but the educational experience is undoubtedly different, though comparable.

Data from the most recent cohort (class of 2022) to attend WSU in year three show exceptional student performance. In the class of 133 students (30 from USU, 92 from WSU, and 11 from MSU),

where 21 students made the dean's honor roll, 10 were from the Utah cohort. This equals 11% of the WSU cohort, but 33% of the USU cohort. Of the top 10 students, seven were from the USU program. More notable is that among the top 13 students in the entire class of 133, nine were from the Utah cohort and the top three students in the class were from USU. These data highlight experience and readiness of the current program to expand on existing strengths, given that the current faculty and staff will continue to operate in the new program. The proposed expansion will be organized and led by a new dean (TBD) upon approval of this request. The proposed structure of the new college is shown in **Figure 8** (below).

Faculty: The governance structure of USU ensures both appropriate administrative support and academic oversight. The dean of the CVM will report to the provost and the executive vice president of USU. The USU CVM will be organized in a centralized model with two multidisciplinary departments. The associate dean for academic affairs and the director of clinical programs together provide oversight for the fourth-year rotations.

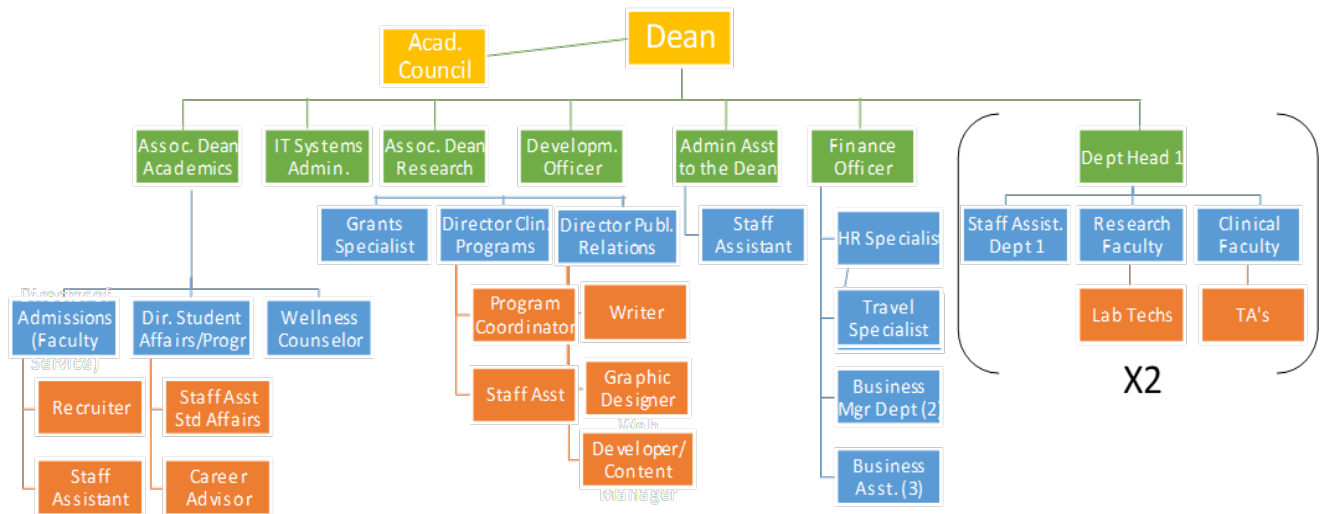


Figure 8: Proposed Organizational Structure of the USU CVM.

Faculty members are responsible for designing, implementing, maintaining, and refining a challenging, contemporary curriculum that encompasses a variety of basic and clinical science courses, all designed to prepare students for careers in veterinary medicine. Faculty strive to bring high levels of enthusiasm, competence, and commitment to their teaching duties, while at the same time aspiring to serve as mentors, coaches, and role models for students enrolled in the DVM program. Faculty members are responsible for the curricular content they offer, the methods of student assessment they employ, and are responsible for determining whether students have demonstrated sufficient proficiency or mastery in each aspect of the curriculum.

The current body of faculty is comprised of 22 faculty (15 tenured or tenure-track, and seven professional practice (clinical) track), as well as four part-time faculty, as listed in Appendix C. An additional 32 faculty (20 tenure track and 12 non-tenure (clinical) track faculty), as well as nine part-time faculty are expected to be hired in the course of the expansion into the proposed four-year program (see Appendix C), which will supplement the existing faculty and provide the required academic and clinical strengths to provide instruction in all four years of the program.

To foster faculty development, faculty and clinical instructors will have access to training in methodology, didactics, and pedagogy of learning and education through the USU Empowering Teaching Excellence (ETE) program (<https://www.usu.edu/teach/index>), and training within the new college. Training in veterinary specialties will be provided by regular continuing education (CE) events

provided by the college. Training for veterinary practitioners will be made available through faculty and staff programs provided by the new CVM.

Competition for hiring excellent faculty and instructors is expected to be a challenge; however, the growing number of alumni from the current program provides an excellent pool of candidates from which to draw.

The proposed new facility should house the bulk of the CVM operation. The USU CVM would have two equally sized departments, where one would focus more on preclinical science, and the other one would have an emphasis in clinical education. However, in each of them, there should be faculty of both the clinical and basic sciences to foster collaboration, allow each department to have research activities, and improve communication.

Administrative faculty will include the dean, two associate deans (academic affairs and research) as well as two department heads, and two directors (for admissions and for clinical partnerships).

At least 20 faculty across the two departments will also have strong research appointments which require research laboratory space.

Senior staff administrators will include a director of clinical programs, director of admissions, director of student services, a financial officer, at least one wellness professional and a clinical psychiatrist, as well as an IT systems administrator, a development officer, a curriculum development and enhancement mentor, and an executive assistant to the dean.

Staff

The new college will hire approximately 57 staff. This is in addition to the existing staff that serve the program at present. This includes advisors, program coordinators, IT support/content/design, a recruiter, marketing staff, administrative assistants, business services staff, lab technicians, and research personnel.

The USU Office of Human Resources will provide guidance, and all hiring will follow USU's policies and procedures. USU will reach out to local and state entities that may have a pool of qualified applicants as well as initiate national searches through professional organizations and networking.

Staff development will be integral to the support of the CVM program. All staff will need to attain expertise in their respective areas and will be afforded opportunities through on-campus training networks and on-site mentors. Lab technicians, research assistants, and other support staff will participate in training directly related to their specific areas.

Student Advising

Veterinary medical education is extremely demanding and can be very stressful. Students will be assigned to support groups consisting of six students and one faculty member. Support groups will meet two-to-three times per semester over lunch to discuss matters of mutual concern. In addition, the faculty member will serve as the faculty advisor for the students in the assigned support group.

It is fairly common for veterinary students to need professional counseling to help them deal with academic or personal problems that can accompany the demanding curriculum. Professional counseling on the USU campus will be provided by a dedicated wellness counselor and staff in the Center for Counseling and Psychological Services.

Library and Information Resources

Library and Information Services will mainly be provided by the Merrill-Cazier Library on the main USU campus, which provides access to almost twomillion print books and journals, 7,600,000 e-books (including over seven million in the Hathi Trust Digital Library), 480,000 government publications, and over 60,000 electronic journals. The USU CVM will continue its partnership with

USU Libraries to provide services, develop, and manage all library and information resources, and will oversee management of a dedicated 1,200 sq.ft.-room in the new CVM building with its reference book library and additional online electronic resources.

Additional resources are available online to veterinary students through the Merrill-Cazier Library, which will receive financial support from the USU CVM, similar to relationships other colleges maintain with USU Libraries.

Projected Enrollment and Finance

The CVM expects the first class of 40 students to be enrolled in 2023-24. It is anticipated that with the completion of the building, enrollment will increase to 80 students. By year five of the program, a full cohort of 320 students is expected (see table in Appendix D).

The CVM will cover salaries and benefits for all faculty and staff through state appropriations (\$21.4M). Operating expenses will be paid for through tuition (\$14.56M). This includes all expenses related to the daily operations of the college, course materials, specialized equipment, fleet, and supplies, software programs and licensing, fourth-year clinical rotations, and professional development.

Section VI: Program Evaluation

Program Assessment

The plan for the new USU CVM program was developed by a USU steering committee. The committee did a comprehensive feasibility study and developed recommendations for what would be needed to implement the program. As stated in the section External Review and Accreditation above, all veterinary medical programs *must be accredited* by the AVMA. While there will be some flexibility in details and organization of the curriculum for the envisioned program, the new school must function within the framework parameters specified by the AVMA, which will ultimately will drive the design of the curriculum (<https://www.avma.org/education/center-for-veterinary-accreditation>). Details of the program will be designed by the new administrative team (TBD) in collaboration with the faculty and assistance from the AVMA, which will also critically review the program design.

Student Standards of Performance

There are three main areas that guide student assessment and outcomes, and help ensure that Utah State University meets the educational standards of performance articulated by the AVMA Council on Education:

1. Students need to pass all core curriculum courses and rotations. In the DVM program, credit toward graduation is earned by satisfactory completion of all required exercises, including coursework and in some instances proficiency tests, which may be given in any year of the veterinary curriculum in association with any discipline. If a student's performance in a course or clinical rotation is deemed to be unsatisfactory and that student is required to retake the course or clinical rotation as part of a remediation plan, the course or clinical rotation must be repeated.
2. Student performance data on the North American Veterinary Licensing Exam (NAVLE) will be evaluated. Students must successfully pass the NAVLE during their third year at a rate of 85%

or greater in order for the program to maintain its accreditation. To be licensed, all students must eventually pass the national licensing exam, as well as state boards.

- Competency-Based Veterinary Education (CBVE) is an approach modeled after competency-based medical education and prepares graduates for professional careers by confirming their ability to meet the needs of animals and the expectations of society. This approach focuses on outcomes-based and learner-centered education and assessment. The CBVE framework consists of nine domains of competency, each representing a group of related abilities necessary for veterinary medicine graduates. Associated with each domain is a list of competencies, all of which are considered core for veterinary education. The CBVE framework consists of 32 competencies, some of which lend themselves to assessment in the clinical context, while others may be best assessed in the preclinical curriculum. These competencies generated by the American Association of Veterinary Medical Colleges will be guideposts for the development and alignment of the curriculum, and assessment of students' progress through the program.

Appendix A: Program Curriculum

General Programmatic Design

VM8500-8524	Professional Skills
VM8524-8549	Normal/Healthy Animal States
VM8550-8574	Diseased Animal States
VM8575-8599	Animal Medicine
VM8600-8649	Clinical Skills and Specialties
VM8650-8699	Clinical Rotations

Course Prefix and Number	Course Title	Sections	Size/Class Section	Credits
VM8500/1	Professional Skills (7- Personal Finance/ 7-Time Management) Lecture	1	80	1
VM8530	Veterinary Microscopic Anatomy Lecture	1	80	3
VM8531	Veterinary Microscopic Anatomy Lab Sec. B	2	-	1
	Section A	-	40	
	Section B	-	40	
VM8525	Veterinary Anatomy 1 Lecture	1	80	1
VM8526	Veterinary Anatomy I Lab	2	-	4
-	Section A	-	40	
-	Section B	-	40	
VM8530	Veterinary Physiology 1 Lecture	1	80	3
VM8531	Veterinary Physiology 1 Lab (mostly dry, 1 wet lab)	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8601	Introduction to Clinics (onsite and offsite) explanation, approach, and expectation, then offsite experiences.	1	80	1

VM8502/3	Professional Skills (7- Ethics & Values/ 7- Skills Assessment) Lecture	1	80	1
VM8527	Veterinary Anatomy 2 Lecture	1	80	1
VM8528	Veterinary Anatomy 2 Lab	2	-	3
-	Section A	-	40	
-	Section B	-	40	
VM8532	Veterinary Physiology 2 Lecture	1	80	3
VM8533	Veterinary Physiology 2 Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8535	Veterinary Immunology Lecture	1	80	2
-	Veterinary Immunology Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8620	Principles of Surgery w/ lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8602	Introduction to Clinics (off-site)	Individual	Individual	1
VM8504/5	Professional Skills (7- Professional Behaviors/ 7 - Conflict Resolution) Lecture and Exercises	1+	80 Lecture & 20 exercises	1
-	Section A	-	40	
-	Section B	-	40	
VM8540	Veterinary Neurology Lecture	1	80	2
VM8541	Veterinary Neurology Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8585	Basic Nutrition Lecture	1	80	1
VM8550	General Pathology Lecture	1	80	3
-	General Pathology Lab	4	-	1
-	Section A	-	20	
-	Section B	-	20	

-	Section C	-	20	
-	Section D	-	20	
VM8545	Animal Handling and Orientation Lecture	1	80	1
VM8546	Animal Handling and Orientation Lab	4	-	1
-	Section A	-	20	
-	Section B	-	20	
-	Section C	-	20	
-	Section D	-	20	
VM8555	Veterinary Toxicology Lecture	1	80	2
-	Veterinary Toxicology Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8603	Introduction to Clinics			1
VM8506/7	Professional Skills (7- Leadership/ 7-Wellness & Resilience)	1	80	1
VM8580	Fundamentals of Pharmacology Lecture	1	80	3
VM8559	Veterinary Virology Lecture	1	80	3
VM8557	Veterinary Bacteriology Lecture	1	80	3
VM8558	Veterinary Bacteriology Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8570	Systemic Pathology 1 Lecture	1	80	2
VM8571	Systemic Pathology 1 Lab	2	-	0.5
-	Section A	-	40	
-	Section B	-	40	
VM8604	Introduction to Clinics (off-site)	Individual	Individual	1
VM8508/9	Professional Skills (7- Jurisprudence, Law/Risk Management/ 7 - Skill assessment) Lecture	1	80	1
VM8552	Veterinary Parasitology Lecture	1	80	2
VM8553	Veterinary Parasitology Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8560	Veterinary Public Health Lecture	1	80	2
	Veterinary Public Health Exercise	2	-	0.5
-	Section A	-	40	
-	Section B	-	40	
VM8572	Systemic Pathology 2 Lecture	1	80	2

VM8573	Systemic Pathology 2 Lab	2	-	0.5
-	Section A	-	40	
-	Section B	-	40	
VM8568	Clinical Pathology Lecture	1	80	2
VM8569	Clinical Pathology Lab (mostly dry lab, but two wet labs)	2	-	1
-	Section A	-	40	
-	Section B	-	40	
	Theriogenology Lecture	1	80	1
VM8621	Principles of Surgery 2 (integration) Lecture	1	80	1
VM8622	Principles of Surgery 2 (integration) Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
8510/11	Professional Skills (7- Practice Management/ 7- Communication)	1+	80 Lecture & 20 exercises	1
-	Section A	-	40	
-	Section B	-	40	
VM8562	Emerging and Exotic Diseases of Animals	Individual	Individual	1
VM8561	Epidemiology	1	80	2
	Theriogenology Lab	4	-	1
-	Section A	-	20	
-	Section B	-	20	
-	Section C	-	20	
-	Section D	-	20	
VM8637	Clinical Anesthesiology Lecture	1	80	2
VM8638	Clinical Anesthesiology Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8635	Radiology Lecture	1	80	2
VM8636	Radiology Lab (computer-based) (possible dry lab?)	2	-	1
-	Section A	-	40	

-	Section B	-	40	
VM8623	Principles of Surgery 3 (integration) Lecture	1	80	1
VM8624	Principles of Surgery 3 (integration) Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8606	Introduction to Clinics	Individual	Individual	1
VM512/13	Profess. Skills (7- Client Communication / 1 - DC1) Exercise	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8688	Clinical Veterinary Pharmacology Lecture	1	80	3
VM8578	Small Animal Medicine I Lecture	1	80	3
VM8625	Small Animal Surgery Lecture	1	80	1
VM8626	Small Animal Surgery Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8595	Equine Medicine Lecture	1	80	2
VM8592	Agricultural Animal Medicine I Lecture	1	80	3
VM8607	Introduction to Clinics (off-site)	Individual	Individual	1
VM8514/15	Profess. Skills (7 - Client Communication/ 1 - DC2) Exercise	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8579	Small Animal Medicine II Lecture	1	80	3
VM8640-49	Clinical Specialties (Dermatology, Ophthalmology, etc.)	1	80	3
VM8593	Agricultural Animal Medicine II Lecture	1	80	2
VM8594	Agricultural Animal Medicine II Lab	4	-	1
-	Section A	-	20	
-	Section B	-	20	
-	Section C	-	20	
-	Section D	-	20	
VM8627	Small Animal Surgery 2 Lecture	1	80	1
VM8628	Small Animal Surgery 2 Lab	2	-	1
-	Section A	-	40	
-	Section B	-	40	
VM8630	Large Animal Surgery Lecture	1	80	1
VM8631	Large Animal Surgery Lab	4	-	1

-	Section A	-	20	
-	Section B	-	20	
-	Section C	-	20	
-	Section D	-	20	
VM8608	Introduction to Clinics (off-site)	Individual	Individual	1
VM8516/17	Professional Skills (7 - Business Finance/ 7- Wrap-up) Lecture	1	80	1
VM8640-49	Clinical Specialties (Dermatology, Ophthalmology, etc.)	1	80	6
VM8586	Veterinary Clinical Nutrition	1	80	1
VM8609	Introduction to Clinics (clinic rotations)	Individual	Individual	6

Course Prefix and Number	Course Name (Rotations are core, supplemental, and elective)		
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VM8600	Senior paper			1
VM8650-99	31 Weeks of core rotations			31
VM8650-99	12 Weeks of supplemental rotations			12

Total Credits **175.5**

Add An Emphasis:

Students may complete this degree without an emphasis.

Program Curriculum Narrative

The curriculum of this program must be accredited by the Council on Education (COE) of the American Veterinary Medical Association (AVMA), which provides clearly defined expectations of graduate competencies. The stipulations laid out by the AVMA will drive the design of the curriculum and of learning objectives and outcomes. As postulated by the AVMA, each veterinary school seeking accreditation has to fulfill strict criteria outlined in 11 standards. These are addressed in official policies and guidelines of the AVMA COE, but relevant to this section is that each CVM must be a standalone college, with its own financial budget, and the dean must hold a DVM degree. The curriculum will be non-tracking, meaning that both small and large animal medicine will be taught, to maximize graduates' professional versatility and likelihood of success.

Wellness will be an important focus of the envisioned new CVM. The veterinary profession currently has the second-highest suicide rate among the health-related professions (<https://www.avma.org/javma-news/2015-04-01/study-1-6-veterinarians-have-considered-suicide>). With students typically taking 40 credits of instruction per year in years one through three, learning in the conventional curriculum has commonly been described as "drinking from the firehose" and as being grueling and stressful. Semester-based curricula in years one through three, such as the one currently used in the WIMU program, includes a week of high-stakes final exams, which foster short-

term memory learning, cause poor retention, and lack remediation opportunities. Failing one of the core courses leads automatically to a student's dismissal from the program, with the option of reinstatement to repeat the year.

The envisaged CVM program proposes to use a curriculum that will make use of time in the summer, while maintaining full compatibility with the USU academic calendar. Summer instruction will include practica, as well as research opportunities for students with faculty. Organization of the curriculum is expected to reduce stress among students and faculty alike, while allowing for remediation and long-term-memory-oriented learning, as well as ample time for vacation or students gaining experience working in veterinary businesses. Student access to resources and student administration will be managed using modern integrative software platforms (online) to optimize student learning experiences, while minimizing administrative cost. The fourth year of the curriculum is entirely dedicated to student clinical rotations.

In summary, relatively small class size (up to 80 students/class), a trimester-based annual calendar, and modern methods of lower-stress assessment techniques within a rigorous, but wellness-oriented curriculum will be the core elements of the preclinical portion of the new program, with better learning outcomes and higher success rates compared to more traditional models.

Degree Map - NA

Appendix C: Current and New Faculty / Staff Information

Part I. Department Faculty / Staff

	# Tenured	# Tenure -Track	Non-tenure track
Faculty: Full Time with Doctorate	15		7
Faculty: Part Time with Doctorate			4
Faculty: Full Time with Masters			
Faculty: Part Time with Masters			
Faculty: Full Time with Baccalaureate			
Faculty: Part Time with Baccalaureate			
Teaching / Graduate Assistants			
Staff: Full Time			9
Staff: Part Time			3

Part II. Proposed Program Faculty Profiles

First Name	Last Name	Tenure (T) /Tenure Track (TT) / Other	De-gree	Institution where Credential was Earned	Est. % of time faculty member will dedicate to proposed program.	If "Other" describe
Full Time Faculty						
Tom	Baldwin	T	DVM PhD	Washington SU (DVM), Louisiana SU (PhD)	25	

Holly	Clement	Other	DVM	UC Davis	100	Professional/Clinical
Chris	Davies	Other	DVM, PhD	Cornell U (both)	10	Research
Karl	Hoopes	Other	DVM	Colorado SU	10	Extension
Brett	Hurst	Other	PhD	USU	25	Research
Jane	Kelly	Other	DVM	North Carolina SU	10	Clinical
Cathleen	Kovarik	Other	DVM, PhD	Colorado SU (DVM), Iowa SU (PhD)	100	Professional/Clinical
Jeffrey	Mason	T	PhD	UC Davis	100	
Ralph	Meyer	T	PhD	U Kaiserslautern, Germany	100	
Mirella	Meyer- Ficca	TT	PhD	U Tuebingen, Germany	100	
Aaron	Olsen	Other	DVM, PhD	Purdue U (DVM), USU (PhD)	35	Professional/Clinical
Lee	Rickords	T	PhD	Louisiana SU	25	
Kerry	Rood	T	DVM	Kansas SU	25	
Helois	Rutigliano	TT	DVM, PhD	Sao Paulo SU, Brazil (DVM), UC Davis (PhD)	100	
Rusty	Stott	Other	DVM	Kansas SU	100	Professional/Clinical
Alexis	Sweat	Other	DVM	Washington SU	100	Professional/Clinical
Bart	Tarbet	Other	PhD	U Delaware	10	Research

	Kara	Thornton-Kurth	TT	PhD	U Idaho	10	
	Dirk	Vanderwall	T	DVM, PhD	Cornell U (DVM), U Idaho (PhD)	25	
	Arnaud	Van Wettere	T	DVM, PhD	U of Liege, Belgium (DVM) North Carolina SU (PhD)	50	
	David	Wilson	T	DVM, PhD	Ohio SU (DVM), Cornell U (PhD)	25	
	Shawn	Zimmerman	TT	DVM, PhD	Louisiana SU (DVM), U Georgia (PhD)	100	
	Add Another Full Time						
Part Time Faculty							
	Allison	Willoughby	Other	DVM	Oregon SU	20	Adjunct lecturer
	James	Akagi	Other	DVM	Washington SU	20	Adjunct lecturer
	Nicole	Busch	Other	DVM	Washington SU	20	Adjunct lecturer
	Beth	Granger	Other	DVM	UC Davis	10	Adjunct lecturer

Part III: New Faculty / Staff Projections for Proposed Program

	# Tenured	# Tenure - Track	# Non - Tenure Track	Academic or Industry Credentials Needed	Est. % of time to be dedicated to proposed program.
Faculty: Full Time with Doctorate		20	12	DVM or PhD	100
Faculty: Part Time with Doctorate			9	DVM	50
Faculty: Full Time with Masters					
Faculty: Part Time with Masters					
Faculty: Full Time with Baccalaureate					
Faculty: Part Time with Baccalaureate					
Teaching / Graduate Assistants					
Staff: Full Time			57		100
Staff: Part Time					

Appendix D: Projected Program Participation and Finance

Part I. Enrollment & Budget

		Planning Yr 1 2022-23	Planning Yr 2 2023-24	Program Yr 1 2024-25	Program Yr 2 2025-26	Program Yr 3 2026-27	Program Yr 4 2027-28	Program Yr 5 2028-29
Phasing In:								
Enrollment by Class USU SVM	Freshman			40	80	80	80	80
	Sophomore				40	80	80	80
	Junior					40	80	80
	Senior						40	80
	Enrollment	0	0	40	120	200	280	320
Phasing Out:								
Enrollment by Class WIMU (2+2)	Freshman	30	30					
	Sophomore	30	30	30				
	Junior	30	30	30	30			
	Senior	30	30	30	30	30		
	Enrollment	120	120	90	60	30		
Residency Status:								
	Resident:	80	80	85	95	125	145	160
	Non-Resident:	40	40	45	75	105	135	160
Total Enrollment All Classes:		120	120	130	180	230	280	320

Projected Budget for USU School of Veterinary Medicine

Building
Constructed and
Occupied

All Four Years at
Full Capacity (see
Enrollment Plan)

USU School of Veterinary Medicine Operating Budget

	Planning Yr 1 (2022-23)	Planning Yr 2 (2023-24)	Program Yr 1 (2024-25)	Program Yr 2 (2025-26)	Program Yr 3 (2026-27)	Program Yr 4 (2027-28)	Program Yr 5 (2028-29)
On-Going Revenue							
State Appropriations							
Add'l. State Appropriation	\$1,172,000	\$3,474,345	\$10,912,448	\$18,000,000	\$18,000,000	\$18,000,000	\$18,000,000
Existing State Apprriation	\$3,400,000	\$3,400,000	\$3,400,000	\$3,400,000	\$3,400,000	\$3,400,000	\$3,400,000
Total State Appropriation	\$4,572,000	\$6,874,345	\$14,312,448	\$21,400,000	\$21,400,000	\$21,400,000	\$21,400,000
Tuition	\$2,017,880	\$2,017,880	\$2,728,940	\$3,440,000	\$9,000,000	\$12,640,000	\$14,560,000
Total Income:	\$6,589,880	\$8,892,225	\$17,041,388	\$24,840,000	\$30,400,000	\$34,040,000	\$35,960,000
On-Going Expenses							
Salaries	\$3,279,300	\$5,763,290	\$13,019,748	\$17,841,256	\$22,422,100	\$22,743,300	\$22,921,800
WIMU Tuition Support	\$1,655,280	\$1,689,360	\$1,689,360	\$1,689,360	\$844,680	\$0	\$0
Operating	\$1,655,300	\$1,439,575	\$2,332,280	\$5,309,384	\$7,133,220	\$11,296,700	\$13,038,200
Total Expenses:	\$6,589,880	\$8,892,225	\$17,041,388	\$24,840,000	\$30,400,000	\$34,040,000	\$35,960,000

Facility Cost To Build

Construction New Building:	\$70,000,000
South Farm Facilities Expansion:	\$10,000,000
Total Facility New Build:	\$80,000,000 *O&M submitted through Facilities

Part II: Expense explanation

Expense Narrative

Expenses include hiring additional faculty (32) and adjunct faculty (nine part-time), professional and support staff (57) as presented in Appendix "C", including benefits at 46% (\$21.4M).

Operating expenses include wages for student/part-time support, research scholars, general operating, advising/recruiting, IT support, software platforms needed to track student progress and delivery of instruction, equipment purchase, maintenance and repair, course materials, travel, veterinary medical resource library, and other operational needs (\$13.6M).

A major expense included in the proposal are the clinical rotations for the fourth-year students utilizing a distributive model. Students will have practicum experiences at several clinics throughout the state/region during their fourth year (\$9 M).

Under this proposal based on increased enrollment, it will no longer be feasible to utilize the existing instructional and lab facilities. Therefore, the proposal includes construction of a new building to house the CVM and an additional facility at USU's Animal Science Farm to isolate and care for large animals (\$80M in one-time funds).

Part III: Describe funding sources

The CVM is requesting \$18M in additional, on-going, state appropriations for salaries and benefits. This will be in addition to the existing appropriation of \$3.4M.

The CVM will also receive tuition revenue to cover operating expenses. This includes an additional, projected \$14M in revenue by year five, reflecting a full cohort of students, above the \$9M included in the budget summary shown in Appendix D, Part I. Tuition for resident students is calculated at \$35,500 per year, and \$55,500 for non-resident students.

Revenue Narrative 1

Currently, the School of Veterinary Medicine Program is housed within the Department of Animal, Dairy, and Veterinary Sciences, in the College of Agriculture and Applied Sciences. Under the contractual agreement with WIMU (overseen by Washington State University), the enrollment is capped at 30 per class and there is existing classroom space to accommodate this number. Under this organization, the program has been able to take advantage of the resources available through the department and college. This includes instruction, classroom, office and ancillary space, IT support, and the use of facilities located at the USU Animal Science Farm and Equine Center.

Revenue Narrative 2

Through increased enrollment, the CVM will realize additional operating revenue. As mentioned above, this revenue will be used to cover operating costs.

It is expected that through advancement efforts, the CVM will grow endowments and receive donations that will directly benefit students by providing scholarship opportunities.

24 June 2022

ITEM FOR ACTION

RE: Capital Development Priorities for Fiscal Year 2023-24

The Utah State University Capital Development Priorities for Fiscal Year 2023-24 are submitted to the Board of Trustees for consideration. The Capital Development Priorities have received the appropriate administrative review and approval.

EXECUTIVE SUMMARY

STATE FUNDED REQUEST

Utah State University is allowed to submit one project for ranking by the Utah Board of Higher Education's Capital Development Prioritization (CDP) process. The priority for this year is the renovation of the Math and Stats building.

DEDICATED CAPITAL PROJECT REQUESTS

Annually the Legislature allocates funding to the Higher Education Capital Projects Fund to be distributed amongst the institutions to fund capital development projects. The priorities for this year are Science Engineering Research building renovation and Huntsman School Experiential Learning building.

CAPITAL PROJECTS APPROVED DURING 2022 GENERAL SESSION

During the 2022 Legislative General Session two capital projects were approved outside the traditional approval process. The Legislature allocated \$5 million dollars towards the Monument Valley academic building project and approved that a portion of the new ongoing funding for the College of Veterinary Medicine (CVM) could be used to construct a new, \$65 million dollar CVM facility.

FIVE-YEAR PLAN

The 5-Year Plan is included for information only.

RECOMMENDATION

The President and Vice President for Finance and Administrative Services recommend that the Utah State University Capital Development Priorities for Fiscal Year 2023-24 be approved as presented.

**RESOLUTION
UTAH STATE UNIVERSITY
BOARD OF TRUSTEES**

WHEREAS, The Utah Legislature appropriates state funds and dedicated capital project funds for the purpose of capital facilities development; and

WHEREAS, Utah State University is required to submit its prioritized recommendation for such projects to the Utah Board of Higher Education after presentation to the USU Board of Trustees; and

WHEREAS, Utah State University considers all capital facility development requests received from colleges and departments in developing the Capital Development Priorities; and

WHEREAS, The President and Vice President for Finance and Administrative Services have reviewed the Capital Development Priorities for Fiscal Year 2023-24 and recommend its approval to the USU Board of Trustees; and

WHEREAS, The USU Board of Trustees has reviewed and given due consideration to the Capital Development Priorities for Fiscal Year 2023-24:

NOW, THEREFORE, BE IT RESOLVED, That the USU Board of Trustees hereby approves the Capital Development Priorities for Fiscal Year 2023-24 as presented.

RESOLUTION APPROVED BY THE BOARD OF TRUSTEES:

Date

**PROPOSED
Capital Development List
FY 2023-24**

<u>Project Name</u>	<u>Approximate Budget</u>
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STATE FUNDED REQUEST

Math and Stats Building Renovation	\$25.5 M.
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DEDICATED CAPITAL PROJECT REQUESTS

Science Engineering Research Building Renovation	\$4 M.
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Huntsman School Experiential Learning Building	\$25 - \$30 M.
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5-Year Plan

Utah State University

FY 2023-24

Math and Stats Building Renovation (Historical Animal Science Building)

The existing 32,504 GSF Animal Science building was built in 1918 and is a historically significant building located on a prominent site along the north side of the Quad. The primary purpose for the renovation is to improve, protect, and preserve the existing building. Building systems need to be modernized to improve safety, functionality, and comfort to fully support the academic function of the building.

Approximate Budget: \$25.5 M.

Project Size: Approximately 32,504 GSF

Science Engineering Research Building Renovation

The project will renovate space for the Computer Science department to move into the Science Engineering Research (SER) building from Old Main. This space was recently vacated by the Information Technology department upon completion of their new building. The move will consolidate space for the College of Science, provide expansion space for the rapidly growing program, and free up space in Old Main for other university space needs.

Approximate Budget: \$4 M.

Project Size: Approximately 13,000 NSF

Huntsman School Experiential Learning Building

The Huntsman School of Business proposes a new building on a site east of the existing business buildings to house 7 programs for the College: 1) Covey Leadership Center, 2) Center for Growth and Opportunity, 3) Center for Entrepreneurship, 4) Analytic Solutions Center, 5) She's Daring Mighty Things, 6) Interdisciplinary Study, and 7) Internship and Start Up. The building will promote the university mission for providing experiential learning and address a lack of space for these programs within existing buildings. Programming will be complete for the project in June 2022.

Approximate Budget: \$25 – \$30 M.

Project Size: Approximately 47,200 GSF

College of Veterinary Medicine Facility

The new College of Veterinary Medicine (CVM) facility will provide spaces that include teaching and research labs, classrooms, faculty and graduate student offices, commons areas, study/collaboration spaces, and a small animal emergency clinic.

Budget: \$65 M.

Monument Valley Academic Building

Utah State University desires to build a new academic building in Monument Valley, on land owned by the local school district. The current facility, space in an old hospital, is in very poor condition, has safety concerns, and is not acceptable as a learning environment. The new building will serve the demand for higher education services in a very remote part of the state within the borders of the Navajo Nation.

Budget: \$14 M.

Project Size: 12,867 GSF

Nora Eccles Harrison Museum of Art (NEHMA) Art Education & Research Center

The Nora Eccles Harrison Museum of Art (NEHMA) is proposing a 9,450 square foot addition to the west side of the Fine Arts Complex to provide space for academic research and collaboration, while also housing a significant private collection of art works to be donated to the university. Additional storage capacity will be included to address future growth of the collection. The new addition will provide accessible interpretive space, a multi-purpose classroom, and high quality, compact storage for the art works. The addition will provide specialized resources for faculty and students, serving academic units across the University.

Budget: \$6.2 M.

Project Size: 9,450 GSF

South Campus Housing Replacement

Replacement of Moen, Greaves, and Reeder residence halls.

Budget: \$24 M.

South Campus Parking Terrace

Structured parking for residence halls, visitors, and commuters.

Budget: \$12 M.

Family Life Building Renovation

The project will be a full historic renovation of the Family Life building, one of 5 historic buildings in the Quad District of the university. The building was built in 1935, consists of 46,745 GSF, and houses academic space for several programs. It is a classic example of the art deco style of architecture and is on the National Historic Register. The renovation will update and modernize building systems.

Approximate Budget: \$25 M.

Project Size: 46,745 GSF

24 June 2022

ITEM FOR ACTION

RE: Faculty and Staff Adjustments

The attached faculty and staff adjustments are submitted for the Trustees consideration. They have received the appropriate administrative review and approval.

EXECUTIVE SUMMARY

The faculty and staff adjustments include one (1) new appointment with tenure.

RECOMMENDATION

The President and Provost recommend that the Board of Trustees approve the attached faculty and staff adjustments.

**RESOLUTION
UTAH STATE UNIVERSITY
BOARD OF TRUSTEES**

WHEREAS, The President and the Provost recommend that the Board of Trustees approve one (1) new appointment with tenure.

NOW, THEREFORE, BE IT RESOLVED, That the USU Board of Trustees hereby approve the recommendation of the faculty and staff adjustments.

RESOLUTION APPROVED BY THE USU BOARD OF TRUSTEES:

Date

Faculty and Staff Adjustments

New Appointments

S.J. and Jessie E. Quinney College of Natural Resources

Linda M. Nagel to be Dean and Professor with tenure, Department of Wildland Resources, S.J. & Jessie E. Quinney College of Natural Resources; effective 01 August 2022; replacing Chris Luecke. B.S., South Dakota State University, 1994; M.S. Washington State University, 1997; Ph.D. University of Montana, 2000.

Linda Marie Nagel

Professor & Head, Department of Forest and Rangeland Stewardship
Warner College of Natural Resources
Colorado State University
Fort Collins, CO 80523
Office: 970-491-2840
Cell: 906-370-5494
Email: linda.nagel@colostate.edu

EDUCATION

Ph.D. 2000. Forestry, University of Montana, Missoula, MT

Dissertation Title: Differences in physiological performance of ponderosa pine in even-aged and multiaged stand structures

M.S. 1997. Natural Resource Sciences, Washington State University, Pullman, WA

Thesis Title: The effects of enhanced UV-B radiation on leaf anatomy, leaf area, and specific leaf weight of four tree species

B.S. 1994. Biology, Chemistry Minor, With High Honors, South Dakota State University, Brookings, SD

PROFESSIONAL POSITIONS HELD

2015-present	Professor & Head, Department of Forest and Rangeland Stewardship, Warner College of Natural Resources, Colorado State University
2013-2015	Professor, Department of Forest Resources, University of Minnesota Director of Operations, Cloquet Forestry Center & Hubachek Wilderness Research Center
2006-2013	Associate Professor of Silviculture, School of Forest Resources and Environmental Science, Michigan Technological University
2000-2006	Assistant Professor of Silviculture, School of Forest Resources and Environmental Science, Michigan Technological University
1997-2000	Graduate Research Assistant, School of Forestry, University of Montana Graduate Teaching Assistant, School of Forestry, University of Montana (courses: Multiple Resource Silviculture, Project Design and Analysis, Forest Biometrics)
1995-1997	Graduate Research Assistant, Natural Resource Sciences Department, Washington State University Graduate Teaching Assistant, Natural Resource Sciences Department, Washington State University (course: Plant Resources I)
1992-1995	Plant Physiology Laboratory Technician, Biology Department, South Dakota State University

ADMINISTRATIVE ROLES

Department Head, Colorado State University (2015-present)

Lead administrator of the Department of Forest and Rangeland Stewardship in the Warner College of Natural Resources. Position includes responsibility for leadership, administration and advancement of departmental teaching, research, extension, and service activities. Responsibilities include cooperative strategic planning and goal-setting; communication of programmatic direction and achievements to internal and external constituencies; fostering relationships with departments and programs in the college and across the university, state and federal agencies, professional societies, and other organizations; administration of the departmental budget; development and execution of curricula and adherence to standards for the forestry (Society of American Foresters) and rangeland ecology (Society for Range Management) professional accreditations; administration of all undergraduate, graduate, on-campus, and online degree programs; management of

faculty and staff including the conduct of annual evaluations, and support of professional development for all faculty and staff; leadership in faculty hiring, promotion and tenure decisions; and member of the College's Executive Leadership Committee. The department has 15 tenured/tenure-track faculty, five non-tenure track faculty, and nine departmental staff.

Director of Operations, University of Minnesota (2013-2015)

Provided strategic leadership for the Cloquet Forestry Center and the Hubachek Wilderness Research Center north of Ely, MN, including budget management, facility maintenance and use, policy development and implementation, and management of 15 staff. Operation oversight included all forest management activities for both facilities and properties, ensuring continued research, education, and outreach needs were met. Provided strategic leadership for programming, including the Sustainable Forests Education Cooperative, the National Advanced Silviculture Program, other outreach and education programs, and all research activities conducted at each center.

HONORS, AWARDS, and PROFESSIONAL DEVELOPMENT

Barrington Moore Memorial Award in Biological Science, Society of American Foresters (National), 2021
Warner College Diversity and Inclusion Award, Colorado State University, 2020
Special Recognition for Outstanding Service to the USDA Forest Service, 2019
CO-WY Society of American Foresters Citizenship Award, 2019
LEAD 21 Leadership for the 21st Century – Leadership Development Program, 2016-2017
Aunt of Paul Award for contributions to University of Minnesota Forestry Club, 2014
MTU Distinguished Teaching Award Finalist, 2008, 2010
Distinguished Teaching Award, School of Forest Resources and Environmental Science, 2007-2008
MTU Academy of Teaching Excellence Inductee, April 2008
Bertha Morton Scholarship, awarded by the Graduate School at the University of Montana, 1999-2000
George Bright Fellowship, School of Forestry, University of Montana, 1998-1999
Certificate of Appreciation, The Native American Students at Washington State University, 1997
Frances Premo Scholarship, Washington State University, 1996-1997
Dean's List, eight semesters, South Dakota State University, 1990-1994
A.A. Hofer Undergraduate Research Award, South Dakota State University, 1994
College of Agricultural and Biological Sciences Scholarship, South Dakota State University, 1992-1994
Mabelle Eberle Scholarship, South Dakota State University, 1992-1993

UNIVERSITY TEACHING

Integrated Field Practicum (Fall Camp) Coordinator (2001-2007), MTU
UN1001 Perspectives on Inquiry: Looking at Nature Through Pictures (2009, 2010), MTU
FW1050 Natural Resources Seminar (2008), MTU
FW3010 Practice of Silviculture (2000-2012), MTU
FW3012 Survey of Silviculture (2003-2012), MTU
FW3150 Timber Harvesting (2000), MTU
FW5000 Distinguished Ecologist Lecture Series (2009), MTU
FW5130 Forest Vegetation Dynamics (2001, 2003, 2005, 2007, 2008, 2011, 2012), MTU
FW5510 A Critique of Silviculture (2009), MTU
FW5800/6800 Graduate Student Seminar (2010), MTU
F325 Silviculture, Co-Instructor (2019), CSU
F592 Advanced Silviculture Seminar, Co-Instructor (2019), Online, CSU
F572 Advanced Silviculture Practices, Co-Instructor (2020), Online, CSU
F101 Introduction to Forest and Rangeland Stewardship, Instructor (2020, 2021), CSU
NR592 Seminar in Natural Resources, Co-Instructor (2021), CSU

PROFESSIONAL MEMBERSHIPS

Society of American Foresters
Society for Range Management

REFEREED PUBLICATIONS (*indicates a graduate student)

- Looney, C.L., W.J. Previant, J.B. Bradford and **L.M. Nagel**. 2021. Species mixture effects and climate change influence growth, recruitment and mortality in Interior West U.S.A. *Populus tremuloides*-conifer communities. *Journal of Ecology*. <http://doi.org/10.1111/1365-2745.13709>
- *Muller, J.J., **L.M. Nagel** and B.J. Palik. 2021. Comparing long-term projected outcomes of adaptive silvicultural approaches aimed at climate change in red pine forests of northern Minnesota, USA. *Canadian Journal of Forest Research*. <https://doi.org/10.1139/cjfr-2021-0097>
- Looney, C., W. Previant and **L. Nagel**. 2021. Variations in tree growth across species mixtures provide evidence of complementarity in Interior West USA mixed-conifer forests. *Journal of Ecology* 109:952-965
<https://doi.org/10.1111/1365-2745.13523>
- Hammes, M.C., L. Brandt, **L. Nagel**, C. Peterson, and M. Windmuller-Campione. 2020. Adaptive Silviculture for Climate Change in the Mississippi National River and Recreation Area, an Urban National Park in the Twin Cities Area, Minnesota. *Cities and the Environment* 13(1)
<https://digitalcommons.lmu.edu/cate/vol13/iss1/11/>
- Brandt, L.A., M. Sertle, H. Hamilton, C. Deaton, K. Mangan, C.W. Swanston, M. Hammes, **L.M. Nagel**, C.L. Peterson, C.E. Looney, M. Windmuller-Campione and R.A. Montgomery. 2020. Adapting bottomland hardwood forests to a changing climate. In L.S. Pile, R.L. Deal, D.C. Dey, D. Gwaze, J.M. Kabrick, B.J. Palik, T.M. Schuler (Eds.). *The 2019 National Silviculture Workshop: a focus on forest management-research partnerships*. General Technical Report NRS-P-193. Madison, WI: USDA Forest Service Northern Research Station: pp 159-162 <https://doi.org/10.2737/NRS-GTR-P-193-paper22>
- *Muller, J.J., **L.M. Nagel** and B.J. Palik. 2019. Forest adaptation strategies aimed at climate change: Assessing the performance of future climate-adapted tree species in a northern Minnesota pine ecosystem. *Forest Ecology and Management* 451(2019) <https://doi.org/10.1016/j.foreco.2019.117539>
- Roske, M.R., L.A. Joyce, **L.M. Nagel**, L.K. Peterson, C.L. Peterson and M. Matonis. 2019. The Rio Grande National Forest Climate Change Plan Revision Workshop: Designing a Science-Management Collaborative Process to Address 2012 Planning Rule Climate Change Concerns at the Forest Plan Scale. Research Note RMRS-RN-84. Fort Collins, CO; USDA, Forest Service Rocky Mountain Research Station. 17p.
- Nagel, L.**, C. Peterson, J. Guldin, C. Swanston, M. Janowiak, B. Palik, S. Jack and S. Bigelow. 2019. The Adaptive Silviculture for Climate Change Project: A Scientist-Manager Partnership. In S. Clark and C. Schweitzer (Eds.). *Proceedings of Oak symposium: sustaining oak forests in the 21st century through science-based management*. General Technical Report SRS-GTR-237. Asheville, NC; USDA Forest Service Southern Research Station. 192p.
- Crotteau, J.S., E. Kennedy Sutherland, T.B. Jain, D.K. Wright, M.M. Jenkins, C.R. Keyes and **L.M. Nagel**. 2019. Initiating Climate Adaptation in a Western Larch Forest. *Forest Science* 65(4):528-536.
<https://doi.org/10.1093/forsci/fxz024>
- Nagel, L.M.**, B.J. Palik, M.A. Battaglia, A.W. D'Amato, J.M. Guldin, C.W. Swanston, M.K. Janowiak, M.P. Powers, L.A. Joyce, C.I. Millar, D.L. Peterson, L.M. Ganio, C. Kirschbaum and M.R. Roske. 2017. Adaptive Silviculture for Climate Change: A National Experiment in Manager-Scientist Partnerships to Apply an Adaptation Framework. *Journal of Forestry* 115:167-178. <https://doi.org/10.5849/jof.16-039>
- *Reinhardt, J.R., **L.M. Nagel**, H. Keough and C.W. Swanston. 2017. Michigan oak savanna restoration: a comparison of mechanical thinning approaches in the context of prescribed fire and native seeding. *Forest Science* 63(4):420-431.
- *Reinhardt, J.R., **L.M. Nagel**, C.W. Swanston and H. Keough. 2017. Community-Level Impacts of Management and Disturbance in Western Michigan Oak Savannas. *American Midland Naturalist* 177(1):112-125.

- *Premer, M.I., R.E. Froese, C.R. Webster and **L.M. Nagel**. 2016. Vegetation response to logging residue removals in Great Lakes aspen forests: Long-term trends under operational management. *Forest Ecology and Management* 382:257-268.
- *Previant, W.J. and **L.M. Nagel**. 2016. Vernal Pool Inventory and Classification at Pictured Rocks National Lakeshore, Michigan, USA. *Natural Areas Journal* 36:124-136.
- *Windmuller-Campione, M., J. Kotar and **L.M. Nagel**. 2015. Habitat Types – What They Can Tell Us Now and in the Future. *Applied Ecology and Environmental Research* 13(3):893-913.
- *Previant, W.J. and **L.M. Nagel**. 2014. Forest diversity and structure surrounding vernal pools in Pictured Rocks National Lakeshore, Michigan, USA. *Wetlands* 34:1073-1083.
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- Pond, N.C., R.E. Froese and **L.M. Nagel**. 2014. Sustainability of the selection system in northern hardwood forests. *Forest Science* 60(2):374-381.
- O'Hara, K.L. and **L.M. Nagel**. 2013. The stand: revisiting a central concept in forestry. *Journal of Forestry* 111(5):335-340.
- *Previant, W.J., S.A. Pugh, **L.M. Nagel** and C.W. Woodall. 2012. Forest Resource Attributes of Isle Royale National Park 2010. USDA Forest Service Resource Bulletin NRS-73, 24p.
- *Shartell, L.M., **L.M. Nagel** and A.J. Storer. 2012. Efficacy of Treatments against Garlic Mustard (*Alliaria petiolata*) and Effects on Forest Understory Plant Diversity. *Forests* 3:605-613.
- *Campione, M.A., **L.M. Nagel** and C.R. Webster. 2012. Herbaceous-layer community dynamics along a harvest-intensity gradient after 50 years of consistent management. *Open Journal of Forestry* 2(3):97-109.
- *Janowiak, M.K., C.W. Swanston, **L.M. Nagel**, B.J. Palik, M.J. Twery, J.B. Bradford, C.R. Webster, L.R. Parker, A.T. Hille, and S.M. Johnson. 2011. Silvicultural decision making in an uncertain climate future: a workshop-based exploration of considerations, strategies, and approaches. USDA Forest Service GTR NRS-81, 18p.
- *Shartell, L.M., **L.M. Nagel** and A.J. Storer. 2011. Multi-criteria risk model for garlic mustard (*Alliaria petiolata*) in Michigan's Upper Peninsula. *American Midland Naturalist* 156:116-127.
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- Nagel, L.M.**, C.W. Swanston and M.K. *Janowiak. 2010. Integrating climate change considerations into forest management tools and training. Pages 27-35 In Theresa B. Jain, Russell T. Graham, and Jonathan Sandquist, tech eds. Integrated management of carbon sequestration and biomass utilization opportunities in a changing climate: Proceedings of the 2009 National Silviculture Workshop, 2009 June 15-18, Boise, ID. Proceedings RMRS-P-61. Fort Collins, CO. USDA, Forest Service, Rocky Mountain Research Station. 351 p.
- Jenkins, M.A., C.R. Webster, S. Jose and **L.M. Nagel**. 2009. Exotic herb layers as ecological filters in forest understories. pp 29-49 In J.D. Creighton and P.J. Roney (editors) Forest Canopies: Forest Production, Ecosystem Health and Climate Conditions. Nova Science Publishers, New York. (Invited)
- *Powers, M.D. and **L.M. Nagel**. 2009. Pennsylvania sedge cover, forest management, and deer density influence tree regeneration dynamics in a northern hardwood forest. *Forestry* 82(3):241-254.
- *Janowiak, M.K., **L.M. Nagel** and C.R. Webster. 2008. Spatial scale and stand structure in northern hardwood forests: implications for quantifying diameter distributions. *Forest Science* 54:497-506.
- Nagel, L.M.**, R.G. Corace and A.J. Storer. 2008. An experimental approach to testing the efficacy of management treatments for glossy buckthorn at Seney National Wildlife Refuge, Upper Michigan. *Ecological Restoration* 26:136-142.
- *Powers, M.D. and **L.M. Nagel**. 2008. Disturbance dynamics influence Pennsylvania sedge abundance in a northern hardwood forest. *Journal of the Torrey Botanical Society* 135(3):317-327.
- Moser, W.K., M.H. Hansen, M.D. Nelson, S.J. Cocker, C.H. Perry, B. Schulz, C.W. Woodall, **L.M. Nagel** and M.E. Mielke. 2007. After the Blowdown: A Resource Assessment of the Boundary Waters Canoe Area Wilderness, 1999-2003. USDA Forest Service GTR NRS-7, 63p.

- Woodall, C.W. and **L.M. Nagel**. 2007. Downed woody fuel loading dynamics of a large-scale blowdown in northern Minnesota, U.S.A. *Forest Ecology and Management* 247:194-199.
- *Shields, J.M., C.R. Webster and **L.M. Nagel**. 2007. Factors influencing tree species diversity and *Betula alleghaniensis* establishment in silvicultural openings. *Forestry* 80(3):293-307.
- *Neuendorff, J.K., **L.M. Nagel**, C.R. Webster and M.K. Janowiak. 2007. Stand structure and composition in a northern hardwood forest after 40 years of single-tree selection. *Northern Journal of Applied Forestry* 24(3):197-202.
- O'Hara, K.L. and **L.M. Nagel**. 2006. A Functional comparison of productivity in even-aged and multiaged stands: a synthesis for *Pinus ponderosa*. *Forest Science* 52(3):290-303.
- Woodall, C.W. and **L.M. Nagel**. 2006. Coarse woody type: A new method for analyzing coarse woody debris and forest change. *Forest Ecology and Management* 227:115-121.
- Nagel, L.M.**, D. Ebert-May, E.P. Weber and J. Hodder. 2005. Learning through peer assessment. *Frontiers in Ecology and the Environment* 3:390-391.
- *Schwartz, J.W., **L.M. Nagel** and C.R. Webster. 2005. Effects of uneven-aged management on diameter distribution and species composition of northern hardwoods in Upper Michigan, U.S.A. *Forest Ecology and Management* 211:356-370.
- Woodall, C.W. and **L.M. Nagel**. 2005. The species composition of down dead and standing live trees: Implications for forest inventory analysis. Pages 193-198 in Proceedings of the Joint Meeting of the Fifth Annual Forest Inventory and Analysis Symposium, New Orleans, LA, November 18-20, 2003. USDA Forest Service GTR WO-69.
- O'Hara, K.L. and **L.M. Nagel**. 2004. A Multiaged stocking model for Black Hills ponderosa pine. *Western Journal of Applied Forestry* 19:242-244.
- Nagel, L.M.**, J.A. Vucetich, D.D. Reed, G.D. Mroz and H. Parn. 2003. Woody biomass and annual production across a latitudinal gradient in northern Scots pine (*Pinus sylvestris*) forests. *Polish Journal of Ecology* 51:471-479.
- Reed, D. and **L. Nagel**. 2003. Carbon pools and storage along a temperate to boreal transect gradient in northern Scots pine (*Pinus sylvestris*) forests. *Polish Journal of Ecology* 51:545-552.
- O'Hara, K.L., N.I. Valappil and **L.M. Nagel**. 2003. Stocking control guidelines for multi-aged ponderosa pine stands in the Inland Northwest. *Western Journal of Applied Forestry* 18:5-14.
- Risch, A.C., **L.M. Nagel**, M. Schutz, B.O. Krusi, F. Kienast and H. Bugmann. 2003. Structure and long-term development of subalpine *Pinus montana* Miller and *Pinus cembra* L. forests in the central European Alps. *Forstwissenschaftliches Centralblatt* 122:219-230.
- Nagel, L.M.** and K.L. O'Hara. 2002. Diurnal fluctuations of gas exchange and water potential in different stand structures of *Pinus ponderosa*. *Trees* 16:281-290.
- Nagel, L.M.** and K.L. O'Hara. 2001. The influence of stand structure on ecophysiological leaf characteristics of *Pinus ponderosa* in western Montana. *Canadian Journal of Forest Research* 31:2173-2182.
- Nagel, L.**, R. Brewster, W.E. Riedell and R.N. Reese. 2001. Cytokinin regulation of flower and pod set in soybeans (*Glycine max* (L.) Merr.). *Annals of Botany* 88:27-31.
- Nagel, L.M.**, J.H. Bassman, G.E. Edwards, R. Robberecht and V.R. Franceschi. 1998. Leaf area and anatomical changes associated with exposure to enhanced ultraviolet-B radiation in *Populus trichocarpa*, *Quercus rubra*, *Pseudotsuga menziesii*, and *Pinus ponderosa*. *Physiologia Plantarum* 104:385-396.

EDITORSHIPS

Guest Associate Editor, *Northern Journal of Applied Forestry*, 2011
 Associate Editor for Silviculture, *Forest Science*, 2011-2015

REVIEWER for PUBLICATIONS

Journals: *Ambio*, *Bioscience*, *Canadian Journal of Forest Research*, *CBE – Life Sciences Education*, *CHOICE Magazine*, *Ecological Applications*, *Environmental Conservation*, *Forest Ecology and Management*, *Forest Science*, *Forests*, *Forestry*, *International Journal of Plant Sciences*, *Journal of Forest Research*, *Journal of Forestry*, *Journal of the Torrey Botanical Society*, *Journal of Tropical Forest Science*, *New Forests*, *Northern*

Journal of Applied Forestry, Open Journal of Forestry, Southern Journal of Applied Forestry, Tree-Ring Research, Western Journal of Applied Forestry

Proceedings of the 2008 Central Hardwood Forest Conference

Proceedings of the 2009 National Silviculture Workshop

Reviewer for book chapter in "Climate Change Adaptation and Mitigation Management Options: A Guide for Natural Resource Managers in Southern Forest Ecosystems"

Reviewer for "A Revised Management Guide for Red Pine" compiled and edited by D.W. Gilmore, B.J. Palik, and J.W. Benzie

Reviewer for "Development of the Selection System in Northern Hardwood Forests: An 80-year Silviculture Research Legacy with Impacts Across Borders" a chapter to be included in a book about Experimental Research Forests in the US Forest Service

EXTERNALLY FUNDED PROJECTS Total ~ \$6M

Nagel, L.M., C. Peterson and E. Elias. Increasing agricultural productivity and sustainability by impactful development and communication of climate smart agricultural research and practices. USDA ARS Climate Hubs, \$40,000, 2021-2022

Nagel, L., C. Swanston and E. Elias. Forest, Grassland, and web-based adaptation strategies for decision support: A collaborative approach between the Northern Forests and Southwest Hubs. USDA Forest Service, \$167,235, 2020-2022

Nagel, L.M., C. Peterson and C. Swanston. Science Synthesis and Climate Services in Support of the USDA Climate Hubs Fellows. USDA Forest Service, \$62,714, 2019-2021

Nagel, L.M. and C. Peterson. Enhancing drought resilience via assessment, collaboration and coordination. USDA Agricultural Research Service, \$20,000, 2019-2021

Hammes, M., L. Brandt, M. Windmuller-Campione, R. Montgomery, L. Nagel and C. Peterson. Climate Change Adaptation and Communications in the Mississippi National River and Recreation Area. Wildlife Conservation Society Climate Adaptation Fund, \$247,600, 2018-2020

Hanberry, B., N. Clark, B. Miller, J. Engert, L. Nagel and C. Peterson. Climate Change Vulnerability Assessment in Support of Pike San Isabel National Forests and Cimarron/Comanche National Grasslands Forest Plan Revision, Plan Amendments and Project-Level Planning. USDA Forest Service, \$50,000, 2018-2019

Nagel, L.M. and C.W. Swanston. Science Synthesis and Delivery for the Climate Change Resource Center. USDA Forest Service, Northern Research Station \$25,000, 2016-2019

Tinkham, W., L.M. Nagel and M. Battaglia. User Needs Assessment for Modernizing the Forest Vegetation Simulator. USDA Forest Service, Rocky Mountain Research Station \$20,000, 2016-2018

Nagel, L.M. and L. Joyce. Rio Grande National Forest Climate Change and Planning Collaboration. USDA Forest Service, Rocky Mountain Research Station \$25,000, 2016-2018

Nagel, L.M. Short-Term Evaluation and Long-Term Modeling of Ecosystem Responses in the Red Pine Adaptive Silviculture for Climate Change Experiment. USDA Forest Service, Northern Research Station \$56,900, 2015-2020

Falkowski, M., A. Ek, A. D'Amato, M. Russell, L. Nagel and R. Slesak. A foundational dataset characterizing historic forest disturbance impacts. Legislative Citizen's Commission on Minnesota's Resources \$200,000, 2015-2018

Nagel, L.M. National Advanced Silviculture Program 9 of the US Forest Service, Ecological Systems Module. USDA Forest Service, Bureau of Indian Affairs, Bureau of Land Management \$98,934, 2015

Nagel, L.M. Lake States Silviculture Module for the National Advanced Silviculture Program. USDA Forest Service, Bureau of Indian Affairs, and Wisconsin DNR \$55,695, 2015

Falkowski, M.J., L.M. Nagel and A. Hudak. Enhancing Tools and Geospatial Data to Support Operational Forest Management and Regional Forest Planning in the Face of Climate Change. NASA \$266,028, 2014-2017

Nagel, L.M. Climate-Informed Forest Management Forum and Field Day. Minnesota Department of Natural Resources \$4,000, 2014

Nagel, L.M. National Advanced Silviculture Program 8 of the US Forest Service, Ecological Systems Module. USDA Forest Service \$113,430, 2014

Sagor, E.S., L.M. Nagel and A.W. D'Amato. Northern Great Lakes Silviculture Prescription Library. Great Lakes Forest Alliance, through the Minnesota Forest Resources Partnership \$32,470, 2014-2015

Nagel, L.M. National Advanced Silviculture Program 7 of the US Forest Service, Ecological Systems Module. USDA Forest Service \$131,607, 2013

Nagel, L.M. and K.M. Waring (NAU). Post-fire regeneration response and long-term outlook following recent fires in the Upper Peninsula, MI. The Forestland Group \$15,000, 2013

Nagel, L.M., C.W. Swanston and M.D. Powers. National Instruction of Advanced Climate Change Topics. US Forest Service, Northern Research Station \$80,000, 2012-2016

Nagel, L.M. Lake States Silviculture Module of the US Forest Service National Advanced Silviculture Program. USDA Forest Service \$73,104, 2012

Nagel, L.M. National Advanced Silviculture Program 6 of the US Forest Service, Ecological Systems Module. USDA Forest Service \$131,305, 2012

Nagel, L.M. and J. Guldin. A National Approach to Adaptive Silviculture in the Context of Climate Change. USDA Forest Service, Southern Research Station \$250,000, 2011-2016

Froese, R. and L.M. Nagel. Evaluating the Long-term Effect of Logging Residue Harvest in Great Lakes Aspen Stands. National Council for Air and Stream Improvement (NCASI) \$150,728, 2011-2015

Butler, P., Swanton, C.W., A. Burton, T. Pypker, A. Storer, R. Froese and L. Nagel. Climate Change Science Delivery, Adaptation, and Ecological Assessment. USDA Forest Service \$25,000, 2011-2014

Nagel, L.M. National Advanced Silviculture Program 5 of the US Forest Service, Ecological Systems Module. USDA Forest Service \$115,498, 2011

Froese, R. and L.M. Nagel. Effects of biomass harvest on forest productivity. Plum Creek Timber Company \$55,000, 2010-2013

Nagel, L.M. Local Lake States Training Module for the USDA Forest Service. USDA Forest Service \$69,147, 2010

Nagel, L.M. National Advanced Silviculture Program IV of the US Forest Service, Ecological Systems Course. USDA Forest Service \$115,793, 2010

Nagel, L.M. Vegetation dynamics of under-represented species in the Great Lakes Region. USDA McIntire-Stennis \$7,000 each in 2008, 2009, 2010

Storer, A.J. and L.M. Nagel. Multicriteria Risk Models for Invasive Plants at Pictured Rocks National Lakeshore: Development, Validation and Implementation. Year 2 of 3. Pictured Rocks National Lakeshore \$39,999, 2008-2011

Mayer, A.S., L.M. Nagel, N. Auer and B. Baltensperger. GlobalWatershed: Integrating Rural and Global Perspectives with Research and Technological Advances. NSF \$2,499,351, 2009-2014

Janowiak, M.K., L.M. Nagel and C.W. Swanston. Training in Advanced Climate Change Topics. USDA Forest Service \$33,000, 2009-2014

Nagel, L.M. Assessing Vegetation of Isle Royale National Park with FIA Data. USDA Forest Service \$15,000, 2009-2011

Nagel, L.M. and C.R. Webster. National Advanced Silviculture Program III of the US Forest Service, Ecological Systems Course. USDA Forest Service \$106,569, 2009

Mayer, A.S. (PI), K. Halvorsen, H. Asbjornsen, A. Mayer, R. Chimner, B. Orr and L. Nagel. Enhancing the Capacity for Sustainable Forest Management and Ecosystem Service Provisioning in Chiapas and Oaxaca. USAID, Higher Education for Development TIES Program \$250,000, 2009-2011

Storer, A.J. and L.M. Nagel. Multicriteria Risk Models for Invasive Plants at Pictured Rocks National Lakeshore: Development, Validation and Implementation. Year 1 of 3. Pictured Rocks National Lakeshore \$30,499, 2008-2011

Nagel, L.M. and C.R. Webster. Lake States Silviculture Module of the National Advanced Silviculture Program of the US Forest Service. USDA, US Forest Service \$34,173, 2008

Janowiak, M., L.M. Nagel, C.R. Webster and C.W. Swanston. Sustainable Forest Management in the Context of Climate Change: Training and Tools for Strategy Development and Application. USDA Forest Service \$132,971, 2008-2012

Nagel, L.M. Developing Transdisciplinarity in Natural Resource Management: Fusing Science, Art and Ethics. MTU Faculty Scholarship Grant, \$1,000, 2008

Nagel, L.M. and C.R. Webster. National Advanced Silviculture Program II of the US Forest Service, Ecological Systems Course. USDA Forest Service \$104,916, 2008

Nagel, L.M. and C.R. Webster. Certified Silviculturist Program of the US Forest Service Ecological Systems Course. USDA Forest Service \$102,115, 2007

Nagel, L.M. The Lake States Silviculture Short Course of the USDA Forest Service Program of Advanced Studies in Silviculture (PASS-16), USDA Forest Service \$37,563, 2006

Nagel, L.M. Assessment of Control Methods for Glossy Buckthorn. US Department of the Interior, Fish and Wildlife Service, Seneq National Wildlife Refuge \$5,000, 2006-2007

Nagel, L.M. Diameter distributions of northern hardwoods across spatial scales. USDA McIntire-Stennis \$7,000 each in 2006, 2007

Storer, A.J. and L.M. Nagel. Demonstration plots of implementation of Ash Phloem Model. USDA Forest Service \$117,877, 2005-2009

Storer, A.J., L.M. Nagel and L. Haugen. Interactions among prescribed fire, mechanical treatments, insect pests and pathogens in red pine. Year 3 of 3. FHM EM-Fire Funding \$29,000, 2006

Nagel, L.M. and A.J. Storer. Risk assessment and suppression of garlic mustard invasion in Michigan. USDA Forest Service, State and Private Forestry Division \$47,000, 2005-2008

Storer, A.J., L.M. Nagel and L. Haugen. Interactions among prescribed fire, mechanical treatments, insect pests and pathogens in red pine. Year 2 of 3. FHM EM-Fire Funding \$30,106, 2005

Nagel, L.M. The Biological and Earth Sciences Session of the USDA Forest Service Program of Advanced Studies in Silviculture (PASS-16), USDA Forest Service \$60,588, 2005

Storer, A.J., L.M. Nagel, C.R. Webster and M.D. Hyslop. A predictive model for exotic plant species for the Great Lakes Network of the U.S. National Park Service. National Park Service \$45,000, 2004-2008

Nagel, L.M. Factors influencing the presence of Pennsylvania sedge on northern hardwood sites. USDA McIntire-Stennis \$7,000 each in 2003, 2004, 2005

Storer, A.J., L.M. Nagel and L. Haugen. Interactions among prescribed fire, mechanical treatments, insect pests and pathogens in red pine. Year 1 of 3. FHM EM-Fire Funding \$30,151, 2004

Erickson, J. and J. Forsman (J. Schmierer and L. Nagel collaborators). A Proposal to construct and evaluate the performance of six timber bridges using local species in northern Michigan. US Forest Service \$103,000, 2003-2004

Nagel, L.M. Lake States Silviculture Session of the USDA Forest Service Program of Advanced Studies in Silviculture (PASS-15). USDA Forest Service \$29,371, 2003

Nagel, L.M. Integrating fire breaks into an ecological framework for forested ecosystem management at Seneq National Wildlife Refuge. U.S. Fish and Wildlife Service \$40,000, 2003-2006

Ruiz, I.J., E.F. Contreras, A.S. Mayer and B.A. Barna. Michigan Tech-UNISON Linkage: Training a core of water resources experts. USAID \$299,860, (L.M. Nagel listed as Collaborator) 2002-2005

Nagel, L.M. Development of a multiaged stocking control model for ponderosa pine in the Black Hills, USDA Forest Service \$5,000, 2002-2003

Mroz, G.D., L.M. Nagel and M.R. Gale. The Biological and Earth Sciences Session of the USDA Forest Service Program of Advanced Studies in Silviculture (PASS-15). USDA Forest Service \$41,115, 2002

Nagel, L.M. Above-ground carbon allocation in a chronosequence of red pine. North Central Research Station, USDA Forest Service \$16,862, 2001-2006

Nagel, L.M. and J.M. Schmierer. Institutional Team with the MSU FIRST II (Faculty Institutes for Reforming Science Teaching) Project funded by NSF, 2002 to 2005

PROFESSIONAL SERVICE

International Union of Forest Research Organization (IUFRO) Chair, 1.05.00 Uneven-aged Silviculture Division, 2019-present

Science Advisory Panel, Elliott State Research Forest, Oregon State University, 2020-2021

External Reviewer and Team Lead, Purdue's Department of Forestry and Natural Resources, Sept-Oct 2020

External Reviewer, Wilderness Institute at the University of Montana, February 2020

National Association of University Forest Resources Programs (NAUFRP), 2015-present

Western Regional Chair, 2016-2019

NAUFRP Representative to the APLU, Budget and Advocacy Committee, 2020-present
Member, National Association of University Range Programs (NAURP)
SAF Accreditation Site Team Lead, New Mexico Highlands University, April 2019
External Reviewer, Forestry and Natural Resources Program at Cal Poly, April 2019
Society of American Foresters National Convention Review Committee, 2017-2018
External Reviewer, School of Forestry Graduate Programs, Northern Arizona University, October 2017
Workshop participant, McIntire-Stennis Communications (led by NAUFRP), Atlanta, GA, August 2017
Northern Colorado Forestry Council Member, 2016-present
External Panel Member, Fire Ecology and Management Program at the University of Idaho, April 2016
Co-leader for Silviculture Instructor's Tour, MN-WI, October 2016
Panel member for "An Evening with Jim Furnish" at Avogadro's Number, September 2016
Advisory Board Member, Agriculture, Forestry and Climate Science Virtual Learning Network (collaboration between The eXtension Foundation and the USDA Regional Climate Hubs), 2015
Program Co-Chair for the 2016 Society of American Foresters National Convention, November 2-6, 2016, Madison, WI
Planning committee for the 2015 Society of American Foresters National Convention, Baton Rouge, LA
External reviewer for Southern Illinois University's Masters Program, Department of Forestry, College of Agricultural Sciences, Carbondale, IL, January 2013
Faculty Advisor for Student Chapter (MTU) of Society of American Foresters, 2007-2013
Scientific Organizing Committee, 8th International Union of Forest Research Organizations (IUFRO) International Conference on Uneven-aged Silviculture: Optimizing timber production, ecosystem services and resilience to climate change. November 12-24, 2012, Lincoln University, Lincoln, New Zealand.
Member of Executive Team, Michigan Chapter of the Society of American Foresters, 2007-present
Member of Seney National Wildlife Refuge Biological Review Team, August, 2006
Poster judge, Ecosystem Science Center Graduate Student Forum (MTU), 2006, 2008, 2009, 2011, 2013
Panel Member for USDA-CSREES NRI Managed Ecosystems Program, Washington, D.C., 2004-2007
Proposal reviewer for The National Fish and Wildlife Foundation, 2008
Proposal reviewer for The Maine Agricultural and Forest Experiment Station (MAFES), 2006
Proposal reviewer for the National Institute for Climatic Change Research (NICCR), 2006
Ad-hoc proposal reviewer for National Science Foundation, 2008
Ad-hoc proposal reviewer for National Science Foundation, 2007
Ad-hoc proposal reviewer for US Civilian Research and Development Foundation, 2005
Ad-hoc proposal reviewer for USDA-CSREES NRI Soil Processes Program, 2005
Steering Committee Member for the Great Lakes Silviculture Summit held at MTU April 22-23, 2003, sponsored by MeadWestvaco Corporation, Michigan State University, Michigan Technological University, USDA Forest Service North Central Research Station, and the University of Minnesota
Judge for Western Upper Peninsula Science Fair (2001, 2002)

*Numerous reviews for ad hoc grant proposals for various agencies and universities

*Numerous external review letters for promotion and tenure packets at various universities

*External panel reviewer for numerous US Forest Service scientist panels

*Numerous letters of support for Fulbright and other awards received by faculty and colleagues

OUTREACH AND ENGAGEMENT

Lead PI and Facilitator for the Adaptive Silviculture for Climate Change (ASCC) International Network;

Project Webpage: <https://www.adaptivesilviculture.org/>

Scientist-Manager Workshops

- Driftless Region, Iowa, Minnesota, Wisconsin, Virtual, December 2, 9-10, 2021
- John Prince Research Forest, Univ of Northern British Columbia and partners, Virtual, June 2, 9-10, 2021
- Colorado State Forest Service, Virtual, December 8-10, 2020

- Petawawa Research Forest, Pembroke, Ontario, July 16-18, 2019
- Mississippi National River and Recreation Area (MNRRA), St. Paul, MN, March 25-26, 2019
- ASCC Collaborator Network Meeting, Fort Collins, CO, January 9-10, 2018
- Second College Grant, Dartmouth College, NH, August 2-4, 2016
- Flathead National Forest and Coram Experimental Forest, Kalispell, MT, June 28-30, 2016
- Joseph W. Jones Ecological Research Center, Ichaway, GA, January 12-14, 2016
- San Juan National Forest, Pagosa Springs, CO, March 4-6, 2014
- Chippewa National Forest and Cutfoot Experimental Forest, Deer River, MN, June 25-27, 2013

Co-facilitator for Climate Impacts and Adaptation Workshop for the Pike, San Isabel, Arapaho, and Roosevelt National Forests, Fort Collins, CO, November 13-14, 2019

Co-facilitator for Colorado Forest Action Plan Adaptation Workshop for the Colorado State Forest Service, Fort Collins, CO, June 13-14, 2019

Invited workshop participant and partner panelist, USFS Experimental Forests and Ranges, Eugene, OR, November 2018

Featured Speaker, Student Alpha Club (SAF), February 2018

Team Lead for collaborative project with the Colorado State Forest Service (Project: *Developing Collaborative Science-Management Partnerships Through an Adaptive Forest Management Program*), 2017-2018

Featured Speaker for Tree Campus USA Tree Planting Event, April 2017

Guest Lecturer in F325 Silviculture, April 2017

Featured Speaker for Student Chapter of the Society for Women Environmental Professionals (SWEP), February 2017

Fieldtrip leader for Bureau of Indian Affairs Forestry Coop Student group, CFC, August 19, 2014

Fieldtrip leader and presenter for Nature Management class from Norway, CFC, September 30, 2014

Instructor for the US Forest Service National Advanced Silviculture Program (NASP 10), July 2016

Instructor for the US Forest Service National Advanced Silviculture Program (NASP 11), July 2017

Instructor for the US Forest Service National Advanced Silviculture Program (NASP 12), July 2018

Instructor for the US Forest Service National Advanced Silviculture Program (NASP 13), July 2019

Instructor for the US Forest Service National Advanced Silviculture Program (NASP 14), July 2020

Instructor for the US Forest Service National Advanced Silviculture Program (NASP 15), August 2021

Director/Instructor for the US Forest Service National Advanced Silviculture Program (NASP)

- Ecological Systems Session, NASP 9, June 15-26, 2015 – UMN
- Lake States Silviculture Session, April 20-May 1, 2015 – UMN
- Ecological Systems Session, NASP 8, June 9-20, 2014 – UMN
- Ecological Systems Session, NASP 7, May 6-17, 2013 – MTU
- Lake States Silviculture Session, July 9-20, 2012 – MTU
- Ecological Systems Session, NASP 6, May 14-25, 2012 – MTU
- Ecological Systems Session, NASP 5, May 16-27, 2011 – MTU
- Local Lake States Silviculture Module, June 6-18, 2010 – MTU
- Ecological Systems Session, NASP 4, May 10-21, 2010 – MTU
- Ecological Systems Session, NASP 3, May 11-22, 2009 – MTU
- Lake States Silviculture Session, June 9-14, 2008 – MTU
- Ecological Systems Session, NASP 2, May 12-23, 2008 – MTU
- Ecological Systems Session, NASP 1, May 13-25, 2007 – MTU

Director/Instructor for the US Forest Service PASS (Program of Advanced Studies in Silviculture)

- Lake States Silviculture Session May 15-26, 2006 – MTU
- Biological and Earth Sciences Session, July 10-22, 2005 – MTU
- Lake States Silviculture Session, July 13-25, 2003 – MTU
- Biological and Earth Sciences Session, September 8-20, 2002 – MTU

Instructor for the US Forest Service PASS (Program of Advanced Studies in Silviculture)

- Lake States Silviculture Session, September 2000 – MTU

NASP/PASS Panel Member – served on 11 Forest Service and BIA certification panels, 2004-2012, 2020

Instructor, Co-Director, and Course Designer for TACCT: Training in Advanced Climate Change Topics, joint with the US Forest Service and NIACS (Northern Institute of Applied Climate Science)
 March 15-19, 2010, Pyle Center, Madison, WI
 April 2-6, 2012, Pyle Center, Madison, WI

Co-facilitator for Science Applications and Needs Workshop, April 27-28, 2010, Madison, WI. Workshop was part of the Climate Change Response Framework project co-led by the Chequamegon-Nicolet National Forest, the USDA Forest Service, and the Northern Institute of Applied Carbon Science

Fieldtrip Leader, Summer Field Tour on Silvicultural Research, Ford Forestry Center, Alberta, MI, August 21, 2009. Hosted by UP Chapter Michigan Society of American Foresters

Guest Lecturer at the University of Applied Sciences, Eberswalde, Germany. June 2009. Presentations: *Pinus* Management across North America, Northern Hardwood Research and Management of the Great Lakes Region, and North American Perspective on Climate Change and Related Impacts on Forests

Instructor for Certificate Course in Ecosystem Silviculture sponsored by the University of Minnesota and the Blandin Foundation, Grand Rapids, MN, July 25-27, 2006

Instructor for the Forest Resources and Environmental Sciences Teacher Institute held at the MTU Ford Forestry Center/MTU campus: 2004, 2005, 2007, 2009, 2010

Guest instructor for sixth grade science class, Houghton-Portage Middle School. Presentation and exercise "Height growth and development in red pine trees" May 29, 2004

Guest Lecturer in UN1001 Perspectives course, Title of lecture: Sustainable Forest Management, September 25, 2002

Instructor/Fieldtrip leader for Korean Teachers, Ford Forestry Center (MTU): 2002, 2003, 2004, 2006

MTU organizer for satellite conference on gentle logging, March 20, 2001

Instructor for short-course on Northern Hardwood Silviculture, Mead Paper Co., October 2001

Instructor for the Detroit Area Pre-College Engineering Program, Ford Forestry Center, July 2001

Presenter at Middle/High School Teacher Workshop (sponsored by the GEM Center), Lake Linden-Hubbell School Forest, April 2001

Fieldtrip leader for Lake Superior Youth Symposium, May 17-20, 2001

UNIVERSITY SERVICE

Chair, Academic Master Plan Advisory Committee and Planning Team (2021-2022), CSU **serving at the request of Provost Pedersen*

Search Committee for Colorado State Forester/Director, CSFS (2021), CSU

Pennock Distinguished Service Award Selection Committee (2020, 2021), CSU

Internal Program Reviewer for Department of Agricultural and Resource Economics (2020), CSU

Search Committee for CSFS-WCNR Academic Liaison and Experiential Learning Specialist (2019-2020), CSU

Chair, Search Committee for Department Head of Fish, Wildlife, and Conservation Biology (2017-2018), CSU

Departmental Action Team, Forest and Rangeland Stewardship (programmatic assessment, 2017-present), CSU

Search Committee for Associate Director for Science and Data, Colorado State Forest Service (CSFS, 2017-2018), CSU

Selection Committee for pilot WCNR-CSFS Internship Program (2017-2018), CSU

Advisory Board Member, Fire and Emergency Services Administration (2015-present), CSU

Panel Member, Teaching and Learning Institute (TILT) Summer Conference: High-Impact Educational Practices Intersect with the Science of Learning (May 2017), CSU

Monfort Professor Selection Committee (2017), CSU

Search Committee for CO Agriculture Experiment Station Deputy Director (2016), CSU

Search Committee for CSFS University Liaison and Experiential Learning Coordinator (2016-2017), CSU

Chair, Budget Area Review Committee (Appointed by Provost, FY2016, FY2017), CSU

Masters of Natural Resources Stewardship (MNRS) Advisory Committee (2015-present), CSU

Lead, Departmental Strategic Planning Committee (2015-2016), CSU

Advisory Committee, Plant Growth Facility (2015-current), CSU

College Research Advisory Committee (CFANS, 2015), UMN

Chair, Search Committee for Silviculture Faculty Position (Dept FR, 2014-2015), UMN
 Search Committee for two Associate Dean positions (CFANS, 2014) UMN
 Chair, Hubachek Wilderness Research Center (HWRC) Oversight Committee (2013-2015), UMN
 College Honors and Awards Committee (CFANS, 2014-2015), UMN
 Strategic Plan Revision Committee, Department of Forest Resources (2013-2014), UMN
 Reviewer for SURF (Summer Undergraduate Research Fellowship) program (2013), MTU
 Invited Speaker for Workshop Series on Proposal Development for New Faculty – USDA: Agency Overview, Organization, and Culture (January 22, 2013), MTU
 Invited Speaker for “Academic Success” session during Orientation Week (August 24, 2011), MTU
 FRES Tenure, Promotion and Reappointment Committee (2009-2012, Chair 2011-2012), MTU
 Honors and Awards Committee (appointed by the President, 2011-2014), MTU
 Faculty Advisor for MTU Student Chapter of the Society of American Foresters (2007-2013), MTU
 Faculty Senate Alternate for FRES (2007-2013), MTU
 Instructional Policy University Committee (2007-2013), MTU
 Jurgensen Teaching Award Committee (2011-2013), MTU
 Research Forest and Ford Center Management Committee (2000-2013), MTU
 General Education Council Member (appointed by the Provost, 2009-2013), MTU
 Search Committee for Dean (FRES, 2011-2012), MTU
 Reviewer for DeVlieg Foundation Fellowships (2011), MTU
 Climate Survey Steering Committee (2010-2011), MTU
 FRES Dean’s Evaluation Committee (2009-2010), MTU
 Academic Policy Committee (2009), MTU
 Chair, Search Committee for Tree Physiology faculty position (2009), MTU
 Presenter for Workshop: FRES Undergraduate and Elective Credits (March 18, 2008), MTU
 MTU Summer Undergraduate Research Fellowship (SURF) Reviewer, (2008), MTU
 Strategic Hiring Initiative: Sustainability Cognate Reviewer (2008), MTU
 Interschool Promotion and Tenure Committee (2006-2008)
 Student Advisory Committee, Integrated Field Practicum (Fall 2007), MTU
 Barry M. Goldwater Scholarship University Committee (2007), MTU
 Co-Curricular University Committee (2007), MTU
 Search Committee for On-site Manager of the Ford Forestry Center (2005-2006), MTU
 Advisory Committee Member, Michigan Tech Center for Water and Society (MTCWS, 2005-2007)
 Search Committee for two Wildlife Ecology faculty positions (2005-2006), MTU
 Sub-committee member for SAF Accreditation 2005 (Standard V – Students), MTU
 Graduate Faculty Council Alternate Representative for SFRES (University Committee, 2003-2006), MTU
 Search Committee for Quantitative Ecology/Forest Management faculty position (2001-2002), MTU
 Ad hoc School Web-page Committee (SFRES, 2001-2002), MTU
 Ad hoc School Library Committee (SFRES, 2001-2002), MTU
 Graduate Studies Committee (SFRES, 2001-2004), Chair in 2003-2004, (SFRES, 2006-2009), MTU
 Curriculum Committee (SFRES, 2000-2003), Chair in 2002-2003, MTU
 Search Committee for Biometrics faculty position (2000-2001), MTU

PRESENTATIONS AND CONFERENCE PROCEEDINGS (* indicates a graduate student; presenter in bold)

2021

***Muller, J.**, L.M. Nagel and B. Palik. 2021. Long-term projected outcomes of adaptive silvicultural approaches aimed at climate change in northern Minnesota. Oral Presentation, Society of American Foresters National Convention, Virtual Meeting, November 3-6, 2021.

- Peterson, C.L., C. Looney** and L.M. Nagel. 2021. Adaptive silviculture in an era of climate-driven disturbances. Oral Presentation, Society of American Foresters National Convention, Virtual Meeting, November 3-6, 2021.
- Nagel, L.** 2021. (*Invited Presenter and Panelist*) Advocates for Change in the Forest Sector: Creating a Toolkit for Success Symposium, Virtual, October 18-19, 22, 2021.
- Nagel, L.** 2021. Managing for the Future through Adaptive Silviculture for Climate Change. (*Invited*) Department of Forestry and Natural Resources Seminar, University of Kentucky, Virtual, October 13, 2021.
- Nagel, L.** and C. Peterson. Climate Adaptive Forest Management: NIACS and ASCC. (*Invited*) Climate Adaptation Partnership Panel, Colorado State University, October 6, 2021.
- Nagel, L.** 2021. Adaptive Silviculture for Climate Change in the United States. (*Invited*) Institute of Chartered Foresters National Conference: Climate Smart Forestry: A Focus on the Fundamentals, United Kingdom, Virtual Meeting, September 30, 2021.
- Nagel, L. and W. Previant.** 2021. Climate-Smart Forest Management Implications of Changes in Forest Cover Type Due to Wildfires, Pest Outbreaks, and Climate Changes. (*Invited*) FIA National Users Group Virtual Meeting, USDA Forest Service, June 21-24, 2021.
- Nagel, L.** 2021. Managing for the Future through Adaptive Silviculture for Climate Change. (*Invited Keynote*) North American Forest Ecology Workshop (NAFEW): Turning Ecological Answers into Forest Management Actions. Virtual Meeting, June 21, 2021.
- Nagel, L., G. Liogt and K. Sagheb-Talebi.** 2021. Uneven-aged silviculture during a time of change. All-Division 1 Virtual Officeholders Meeting, International Union of Forest Resource Organizations (IUFRO), February 23, 2021.

2020

- Nagel, L. and C. Peterson.** 2020. The Adaptive Silviculture for Climate Change (ASCC) Network. (*Invited*) First Friday All Climate Change Talks (FFACCTs), USDA Forest Service Webinar Series, April 3, 2020.
- Palik, B. and L. Nagel.** 2020. Operationalizing Adaptive Silviculture for Climate Change in Minnesota. Webinar (*Invited*), Sustainable Forests Education Cooperative, May 19, 2020.
- Nagel, L.** 2020. Diversity and Inclusion During a Time of Rapid Change. Webinar (*Invited*), Wisconsin Society of American Foresters 2020 State Meeting, October 14, 2020.

2019

- Looney, C., W.J. Previant, L. Nagel, J. Shaw and M. Battaglia.** 2019. Variation in individual-tree growth across species mixtures provides evidence of complementarity effects in Interior West forests. 2019 FIA Stakeholder Science Meeting, November 19-21, 2019, Knoxville, TN.
- Nagel, L.M., C. Looney, C. Peterson, L. Brandt, M. Janowiak, C. Swanston and J. Guldin.** 2019. Increasing Adaptive Capacity of Urban Forests. Oral Presentation, XXV International Union of Forest Research Organizations (IUFRO) World Congress. September 29-October 5, 2019, Curitiba, Brazil.
- Nagel, L., C. Looney, M. Battaglia, M. Tuten, C. Peterson, C. Woodall, and W. Previant.** 2019. Applying Climate-Adaptive Forest Management Principles to a Mixed Conifer Landscape in Colorado, USA. Oral presentation, 10th International Association for Landscape Ecology World Congress, July 1-5, 2019, Milan, Italy.
- Peterson, C., L. Nagel and C. Looney.** 2019. Adaptive Silviculture for Climate Change Network: Collaborative Scientist-Manager Partnerships. (*Invited*) oral presentation, 12th North American Forest Ecology Workshop, June 23-27, 2019, Flagstaff, AZ.
- Peterson, C., L. Nagel and C. Looney.** 2019. Adaptive Silviculture for Climate Change (ASCC) Network. (*Invited*) oral presentation at the 2019 Yampa Basin Rendezvous, Colorado Mountain College, June 5, 2019, Steamboat Springs, CO.
- Palik, B. and L. Nagel.** 2019. Forest Service R&D-NFS-University Partnerships: Meeting a Shared Vision. (*Invited Plenary*) National Silviculture Workshop, May 21-23, 2019, Bemidji, MN.

- Brandt, L.**, M. Sertle, H. Hamilton, C. Deaton, K. Mangan, C. Swanston, M. Hammes, L. Nagel, C. Peterson, C. Looney, M. Windmuller-Campione and R. Montgomery. Adapting Bottomland Hardwood Forests to a Changing Climate. Oral presentation, National Silviculture Workshop, May 21-23, 2019, Bemidji, MN.
- Lussier, J.**, L. Nagel, C. Peterson, A. Taylor, Y. Boulanger and N. Thiffault. 2019. Climate Change and Silviculture: What's on the Radar and How Can We Handle It? Oral presentation, Canadian Woodland Forum, April 9, 2019, Moncton, New Brunswick, Canada.
- Crotteau, J.**, E. Sutherland, J. Jain, D. Wright, M. Jenkins, C. Keyes, L. Nagel and C. Peterson. 2019. A Forest Management Framework for Climate Adaptation. Oral presentation, Juneau Society of American Foresters Chapter Meeting, March 14, 2019, Juneau, AK.
- Peterson, C.**, L. Nagel and C. Looney. 2019. The Adaptive Silviculture for Climate Change (ASCC) Project: What's Happening in the USA? (*Invited*) Adapting Silviculture for a Changing Climate workshop. University of New Brunswick, Fredericton, New Brunswick, Canada. March 4, 2019.
- Peterson, C.**, L. Nagel and C. Looney. 2019. The Adaptive Silviculture for Climate Change (ASCC) Network: A Scientist-Manager National Network. Oral presentation, Longs Peak Chapter of the Society of American Foresters. Colorado State University, January 29, 2019. Fort Collins, CO.

2018

- Nagel, L.M.**, C. Peterson, C. Looney, J. Guldin, C. Swanston and M. Janowiak. 2018. The Use of Uneven-aged Management in Achieving Silviculture for Climate Change Goals. Oral Presentation, 11th International Union of Forest Research Organizations (IUFRO) Conference on Uneven-aged Silviculture. November 12-15, 2018, Valdivia, Chile.
- Peterson, C.**, L. Nagel, M. Battaglia, L. Asherin, M. Tuten, C. Swanston, M. Janowiak, J. Guldin, L. Joyce. 2018. Adaptive Silviculture for Climate Change: The San Juan National Forest Site. Poster presentation at the Ft. Lewis Climate Change Symposium. Fort Lewis College, October 30, 2018, Durango, CO.
- *Muller, J.J.**, L.M. Nagel and B.J. Palik. 2018. Assessing the Performance of Eight Future Climate-Adapted Species in Northern Minnesota. Oral presentation, Society of American Foresters National Convention, October 3-7, 2018, Portland, OR.
- Peterson, C.**, L.M. Nagel, M. Matonis and K. Mattor. 2018. Promoting Adaptive Forest Management through Collaborative Science-Management Partnerships. Oral presentation, Society of American Foresters National Convention, October 3-7, 2018, Portland, OR.
- Nagel, L.M.** and C. Peterson. 2018. Adaptive Silviculture for Climate Change: Land Manager-Research Partnerships to Learn from Management Objectives. (*Invited*) National Regional Inventory and Monitoring Coordinators Meeting, May 8, 2018, Fort Collins, CO.
- Peterson, C.**, L. Nagel, M. Battaglia, L. Asherin, M. Tuten, C. Swanston, M. Janowiak, J. Guldin, L. Joyce. 2018. Adaptive Silviculture for Climate Change: The San Juan National Forest Study Site. Poster presentation, Great Plains Grassland Summit, April 10, 2018, Denver, CO.
- Nagel, L.M.** 2018. A National Experiment in Manager-Scientist Partnerships to Apply a Climate Adaptation Framework. (*Invited*) Natural Resource Ecology Laboratory Spring Seminar Series, Colorado State University, March 28, 2018, Fort Collins, CO.
- Peterson, C.** and L. Nagel. 2018. Adaptive Silviculture for Climate Change: A Scientist-Manager National Network. Webinar presentation for the Climate Learning Network, March 1, 2018.
- Peterson, C.** and L. Nagel. February 21, 2018. The Adaptive Silviculture for Climate Change Project: A Scientist-Manager National Network. Oral presentation, Wisconsin Society of American Foresters, February 21, 2018, Spring Green, WI.
- *Muller, J.**, L.M. Nagel and B. Palik. 2018. Seedling Response to Adaptive Silviculture Treatments Aimed at Climate Change Northern Minnesota. Oral Presentation, Department of Forest and Rangeland Stewardship Seminar Series, Colorado State University, February 8, 2018, Fort Collins, CO.
- Nagel, L.M.** 2018. Introduction to the Adaptive Silviculture for Climate Change Network. Oral Presentation, Department of Forest and Rangeland Stewardship Seminar Series, Colorado State University, February 8, 2018, Fort Collins, CO.

***Muller, J., L.M. Nagel and B. Palik. 2018.** Seedling Response to Adaptive Silviculture Treatments Aimed at Climate Change Northern Minnesota. Poster Presentation, Sustainable Forests Education Cooperative Forestry and Wildlife Research Review, January 11, 2018, Cloquet Forestry Center, MN.

2017

Nagel, L.M. 2017. An Update from FRS & The Adaptive Silviculture for Climate Change Project. (*Invited*) Mile High Chapter of the Society of American Foresters, December 14, 2017, Golden, CO.

Nagel, L.M. 2017. Where is Forestry and Forestry Education Headed? (*Invited*) Forestry Leadership Speaker Series, Oregon State University, December 7, 2017, Corvallis, OR.

***Muller, J., L.M. Nagel and B. Palik. 2017.** Assessing Seedling Response to Adaptive Silviculture Treatments in Red Pine Forests of Northern Minnesota. Oral Presentation, Society of American Foresters National Convention, November 15-18, 2017, Albuquerque, NM.

Peterson, C., L.M. Nagel, J. Guldin, C. Swanston, M. Janowiak, M. Battaglia, S. Bigelow, A. D'Amato, S. Jack, T. Jain, E. Kennedy Sutherland, B. Palik and C. Woodall. 2017. Adaptive Silviculture for Climate Change: A Scientist-Manager National Network. Poster Presentation, Society of American Foresters National Convention, November 15-18, 2017, Albuquerque, NM.

Nagel, L.M. 2017. The Adaptive Silviculture for Climate Change (ASCC) Project: A Scientist-Manager Partnership. (*Invited Plenary*) Oak Symposium: Sustaining Oak Forests in the 21st Century through Science-based Management, October 24-26, 2017, Knoxville, TN.

Nagel, L.M. et al. 2017. The Adaptive Silviculture for Climate Change National Project. Oral Presentation, National Silviculture Workshop, July 18-20, 2017, Flagstaff, AZ.

Palik, B., **L.M. Nagel**, T. D'Amato, J. *Muller and C. Kirschbaum. 2017. Adapting Lake States Pine Forests to a Future Climate. Oral Presentation, National Silviculture Workshop, July 18-20, 2017, Flagstaff, AZ.

Battaglia, M., L. Nagel, C. Swanston, L. Joyce, L. Asherin, S. Hartvigsen, G. Fitzgerald, M. Tuten and T. Leishman. 2017. Adaptive Silviculture for Climate Change (ASCC): Preparing dry mixed conifer forests for climate change. Poster Presentation, National Silviculture Workshop, July 18-20, 2017, Flagstaff, AZ.

Bigelow, S.W., S.B. Jack and L.M. Nagel. 2017. Climate Change Coping Strategies for Longleaf Pine Savannas. Poster Presentation, National Silviculture Workshop, July 18-20, 2017, Flagstaff, AZ.

D'Amato, A.W., C.W. Woodall, L.M. Nagel, B.J. Palik, D.A. Lutz and M.K. Janowiak. 2017. Adaptive Silviculture for Climate Change in northern hardwood forests in northern New Hampshire, USA. Poster Presentation, National Silviculture Workshop, July 18-20, 2017, Flagstaff, AZ.

Kennedy Sutherland, E., B. Bollenbacher, T. Jain, M. Jenkins, D. Wright, A. Smiley, L. Nagel and M. Roske. 2017. Adaptive Silviculture for Climate Change in the Northern Rockies: Western Larch. Poster Presentation, National Silviculture Workshop, July 18-20, 2017, Flagstaff, AZ.

***Muller, J., L.M. Nagel and B. Palik.** 2017. Assessing Seedling Response to Adaptive Silviculture Treatments in Red Pine Forests of Northern Minnesota. Poster Presentation, National Silviculture Workshop, July 18-20, 2017, Flagstaff, AZ.

Palik, B., L.M. Nagel, T. D'Amato and J. *Muller. 2017. Transitioning red pine forests to a warmer future: assisting the replacement of an iconic forest type. North American Forest Ecology Workshop, June 19-22, 2017, Alberta, Canada.

Nagel, L.M., C.W. Swanston, M. Janowiak, J. Guldin, B. Palik and M. Battaglia. 2017. A Practical Approach to Translating Climate Change Adaptation Principles into Forest Management Actions. (*Invited*) Dakotas Society of American Foresters, April 19, 2017, Deadwood, SD.

Nagel, L.M., C.W. Swanston, M. Janowiak, J. Guldin, B. Palik and M. Battaglia. 2017. Designing Adaptive Forest Management Experiments Through Scientist-Manager Partnerships. (*Invited*) Texas A&M Ecosystem Science and Management Department Seminar, April 4, 2017, College Station, TX.

Nagel, L.M., C.W. Swanston, M. Janowiak, J. Guldin, B. Palik, M. Battaglia and M. Roske. 2017. Adaptive Forest Management in the Context of Drought: The Adaptive Silviculture for Climate Change Project. (*Invited*) National Drought Meeting, March 21-23, 2017, San Antonio, TX.

Tinkham, W.T., L. Nagel and M. Roske. 2017. User needs assessment for the modernization of the Forest Vegetation Simulator. USDA Forest Service 2017 FVS e-Conference, February 28 – March 2, 2017.

2016

Nagel, L., M. Battaglia, L. Asherin and M. Roske. 2016. Designing Forest Adaptation Treatments for Climate Change Through Manager-Scientist Partnerships in Southwest, CO. (*Invited*) Evening Presentation and Fieldtrip, Bridging the Divide, September 9-10, 2016, Wolf Creek Ski Area, Colorado.

Nagel, L. 2016. Highlights from the Department of Forest and Rangeland Stewardship, WCNR. (*Invited*) Colorado State Forest Service Annual Meeting, May 2-5, 2016, Glenwood Springs, Colorado.

2015

Battaglia, M., L. Nagel, C. Swanston, L. Joyce, L. Asherin, S. Hartvigsen and G. Fitzgerald. 2015. Integrating climate change adaptation strategies in dry mixed conifer forests. Oral Presentation, Society of American Foresters National Convention, November 3-7, 2015, Baton Rouge, Louisiana.

Palik, B., L. Nagel, A. D'Amato, A. Bottero, C. Kern, M. Roberts and C. Kirschbaum. 2015. Adaptive Silviculture for Climate Change in Minnesota Red Pine Forests. Oral Presentation, Society of American Foresters National Convention, November 3-7, 2015, Baton Rouge, Louisiana.

***Premier, M.,** R. Froese and L. Nagel. 2015. Stand regeneration challenges with advances in harvesting technology. Oral Presentation, Society of American Foresters National Convention, November 3-7, 2015, Baton Rouge, Louisiana.

Waring, K., A. Finkral, L. Nagel and M. Falkowski. 2015. Post-fire regeneration response and long-term projections following the Duck Lake Fire, MI. Oral Presentation, Society of American Foresters National Convention, November 3-7, 2015, Baton Rouge, Louisiana.

Nagel, L.M., C. Swanston, M. Janowiak, J. Guldin, B. Palik, M. Battaglia and M. Roske. 2015. Cutting-Edge Application of Adaptive Forest Management for a Changing Climate. (*Invited*) Minnesota SAF Summer Meeting, Grand Rapids, MN, August 6-7, 2015. (presentation and fieldtrip)

Battaglia, M., L. Nagel, C. Swanston, M. Janowiak and L. Joyce. 2015. Adaptive silviculture for climate change (ASCC): Integrating climate change adaptation into silvicultural planning and on-the-ground action in dry mixed conifer forests. Oral Presentation, North American Forest Ecology Workshop, Veracruz, Mexico, June 14-18, 2015.

Palik, B., L. Nagel, T. D'Amato and A. Bottero. 2015. Adaptive silviculture for climate change in red pine (*Pinus resinosa*) forests, Minnesota USA. Oral Presentation, North American Forest Ecology Workshop, Veracruz, Mexico, June 14-18, 2015.

Nagel, L.M., B. Palik, C. Swanston, M. Janowiak, M. Roske and J. Guldin. 2015. Changing the Climate: Cutting-Edge Application of Adaptive Forest Management on the Chippewa National Forest. Oral Presentation (*Invited*), Chippewa National Forest Research Review, Bemidji, MN, March 17, 2015.

Nagel, L.M., C. Swanston, M. Janowiak, J. Guldin, B. Palik, M. Battaglia and M. Roske. 2015. Changing the Climate: Cutting-Edge Application of Adaptive Forest Management. (*Invited Departmental Seminar*) Forestry and Fisheries & Wildlife, University of Missouri, Columbia, March 13, 2015.

Russell, M., A. Gupta, E. Sagor and L. Nagel. 2015. How healthy are Minnesota's forests? Insights using indicators from the FIA program. Sustainable Forests Education Cooperative Forestry and Wildlife Research Review. February 24, 2015. Cloquet, MN.

Nagel, L.M. 2015. The Adaptive Silviculture for Climate Change (ASCC) Project. Ignite talk, Challenges and Priorities for Managing Frequent Fire Conifer Ecosystems Workshop, Jones Ecological Research Center, Newton, GA, January 7-9, 2015.

2014

- Nagel, L.M.**, C. Swanston and M. Janowiak. 2014. Designing forest adaptation experiments through manager-scientist partnerships. Oral Presentation (*Invited*), American Geophysical Union Fall Meeting, December 15-19, 2014, San Francisco, CA.
- Falkowski, M.J.**, A.T. Hudak, P. Fekety, N. Kayastha and L.M. Nagel. 2014. Enhancing tools and geospatial data to support operational forest management and regional forest planning in the face of climate change. Poster Presentation, American Geophysical Union Fall Meeting, December 15-19, 2014, San Francisco, CA.
- Nagel, L.M.**, C. Swanston, M. Janowiak, M. Roske, J. Guldin, B. Palik and M. Battaglia. 2014. Applying adaptive silviculture in contrasting forest types. Oral Presentation (*Invited*), Society of American Foresters National Convention, October 8-11, 2014, Salt Lake City, Utah.
- Nagel, L.M.** 2014. Resilience and the Minnesota Northwoods: Adaptive silviculture for climate change. Webinar (*Invited*), Sustainable Forests Education Cooperative, Cloquet Forestry Center, September 16, 2014.
- *Reinhardt, J.R.**, L.M. Nagel, C.W. Swanston and H. Keough. 2014. Oak savanna conservation and restoration planning using habitat models for two focal species: wild lupine (*Lupinus perennis*) and the Karner Blue butterfly (*Lycaeides melissa samuelis*). Oral Presentation, Ecological Society of America Annual Meeting, August 10-15, 2014, Sacramento, CA.
- Nagel, L.M.** 2014. The Hubachek Wilderness Research Center: Past, Present, and Future. Ely-Winton Historical Society Summer History Night, July 23, 2014, Ely, MN.
- Nagel, L.M.** 2014. A vision for the future: woodland owners, climate change, and invasive species. Minnesota Forestry Association Spring Field Days, May 16-17, 2014, Cloquet Forestry Center, MN.
- Nagel, L.M.** 2014. Adaptive management for climate change in Minnesota forests. Climate-Informed Forest Management: Forum and Field Day (Sustainable Forests Education Cooperative), May 7-8, 2014, Grand Rapids, MN.
- Nagel, L.M.**, C. Swanston and M. Janowiak. 2014. Urban forestry in the context of climate change. Urban Ecology Collaborative Webinar (*Invited*), April 16, 2014.
- *Reinhardt, J.R.**, L.M. Nagel and C.W. Swanston. 2014. Searching for focus: Indicator species analysis in Michigan oak savannas. Oral Presentation. Society for Ecological Restoration Midwest-Great Lakes Annual Chapter Meeting, March 28-30, 2014, St. Paul, MN.
- Nagel, L.M.** 2014. History of northern hardwood management in the Great Lakes region. Northern Hardwoods Symposium (Sustainable Forests Education Cooperative), February 19, 2014, Aitkin, MN.
- Nagel, L.M.** 2014. Resilient Forests: Adaptive Silviculture for Climate Change. (*Invited Plenary Presentation*) Minnesota Society of American Foresters Annual Meeting, January 28-29, 2014, Walker, MN.

2013

- Janowiak, M.**, C. Swanston, L.M. Nagel, L. Brandt, P. Butler, S. Handler and M. Powers. 2013. Forest adaptation: real-world examples of management for a changing climate. Oral Presentation, Society of American Foresters National Convention, October 23-27, 2013, Charleston, SC.
- *Premer, M.I.**, R.E. Froese and L.M. Nagel. 2013. Logging residue harvest effects in commercial Great Lakes *Populus* forests. Oral Presentation, Society of American Foresters National Convention, October 23-27, 2013, Charleston, SC.
- Nagel, L.M.**, C. Swanston, M. Janowiak and M. Powers. 2013. Climate change adaptation in the context of ecological restoration through urban forestry. (*Invited*), Society for Ecological Restoration, 5th World Conference. October 6-11, 2013, Madison, WI.
- Nagel, L.M.** 2013. Standard Silvicultural Prescriptions for Northern Hardwood Stands. (*Invited*) Wisconsin Society of American Foresters State Meeting. September 17-18, 2013, Minocqua, WI.
- *Reinhardt, J.R.**, L.M. Nagel and C.W. Swanston. 2013. Prioritizing land for oak savanna conservation using species distribution models (SDMs) and two umbrella species: Wild lupine (*Lupinus perennis*) and the

Karner Blue butterfly (*Lycaeides melissa samuelis*). Oral Presentation, Ecological Society of America. August 5-9, 2013, Minneapolis, MN.

***Premier, M.I.**, R.E. Froese and L.M. Nagel. 2013. Logging residue harvest effects on plant community dynamics in commercial *Populus* stands of the Great Lakes region. Oral Presentation, Ecological Society of America. August 5-9, 2013, Minneapolis, MN.

Nagel, L.M., J. Guldin, C. Swanston, M. Janowiak and M. Powers. 2013. The Adaptive Silviculture for Climate Change Project. (*Invited Webinar*) First Friday All Climate Change Talks Series, US Forest Service, August 2, 2013.

Swanston, C., M. Janowiak and L.M. Nagel. 2013. Forest management and silviculture for climate change adaptation. One-day Workshop, Thirty-seventh Annual National Indian Timber Symposium, June 10-13, 2013, Keshena, WI.

***Reinhardt, J.R.**, T. Hobbs and L.M. Nagel. 2013. Investigating the influence of land use history on savanna soils in lower Michigan: implications for management, restoration, and conservation. Oral Presentation, Geological Society of America 47th Annual Meeting. May 2-3, 2013, Kalamazoo, MI.

Nagel, L.M., C. Swanston, M. Janowiak and M. Powers. 2013. Adaptive silviculture in a changing climate. (*Invited*) Michigan Society of American Foresters joint meeting with Canadian Institute of Forestry, Central Ontario Section, April 30-May 1, 2013, Sault Sainte Marie, MI.

Nagel, L.M. 2013. Integrative Communication, (*Invited speaker/facilitator*) Center for Teaching and Learning Luncheon, Michigan Technological University, March 28, 2013.

Nagel, L.M. 2013. Developing adaptive silvicultural strategies in the context of climate change. (*Invited Webinar*) Webinar Portal (NC State), March 27, 2013.

Nagel, L.M. 2013. Long-term selection silviculture and adaptive management in the context of climate change. (*Invited*) Department of Forestry and Natural Resources, Purdue University, West Lafayette, IN, March 19, 2013.

2012

Nagel, L.M. 2012. Developing adaptive silvicultural strategies in the context of climate change. (*Invited Webinar*) Forest Guild, December 6, 2012. <http://www.forestguild.org/webinars.html#nagel>

Falkowski, M.J., T. Gebuhr, R.E. Froese and L.M. Nagel. 2012. Use of LiDAR to characterize stage of stand development in temperate, uneven-aged hardwoods of North America. Oral Presentation, 8th International Union of Forest Research Organizations (IUFRO) Conference on Uneven-aged Silviculture, Uneven-aged silviculture: Optimising timber production, ecosystem services and resilience to climate change. November 12-16, 2012, Lincoln, New Zealand.

Nagel, L.M. and W.J. *Previant. 2012. Vernal pools enhance species diversity in uneven-aged northern hardwoods of North America. Oral Presentation, 8th International Union of Forest Research Organizations (IUFRO) Conference on Uneven-aged Silviculture, Uneven-aged silviculture: Optimising timber production, ecosystem services and resilience to climate change. November 12-16, 2012, Lincoln, New Zealand.

***Pond, N.C.**, R.E. Froese and L.M. Nagel. 2012. Sustainability of the selection system in cool-temperate hardwood forests in the North American Great Lakes Region. Poster Presentation, 8th International Union of Forest Research Organizations (IUFRO) Conference on Uneven-aged Silviculture, Uneven-aged silviculture: Optimising timber production, ecosystem services and resilience to climate change. November 12-16, 2012, Lincoln, New Zealand.

Nagel, L.M., C. Swanston, M. Janowiak and M. Powers. 2012. Incorporating Climate Change into Adaptive Silviculture Planning. Oral Presentation, Society of American Foresters National Convention, October 24-28, 2012, Spokane, WA.

Falkowski, M.J., A.T. Hudak and L.M. Nagel. 2012. A Geospatial Approach for Initializing Climate Sensitive Forest Growth Models. Oral Presentation, Society of American Foresters National Convention, October 24-28, 2012, Spokane, WA.

- *Pond, A.C.**, R.E. Froese and L.M. Nagel. 2012. Arbogast and beyond: current management in northern hardwood stands. Oral Presentation, Society of American Foresters National Convention, October 24-28, 2012, Spokane, WA.
- Nagel, L.M.**, C. Swanston, M. Janowiak and M. Powers. 2012. Developing Adaptive Silvicultural Strategies in the Context of Climate Change. (*Invited*) College of Engineering, Forestry and Natural Sciences, Northern Arizona University, September 26, 2012.
- Falkowski, M.J.**, A.T. Hudak and L.M. Nagel. 2012. Parameterizing Climate Sensitive Forest Growth Models via LiDAR and Satellite Remote Sensing Data. Oral Presentation, SilviLaser 2012, September 16-19, 2012, Vancouver, Canada.
- Froese, R.E.**, L.M. Nagel and M.I. Premer. 2012. The effects of topwood removal on plant communities in aspen stands in the United States Upper Midwest. Oral Presentation, International Union of Forest Research Organizations (IUFRO) 2nd International Conference on Biodiversity in Forest Ecosystems and Landscapes. August 28-31, 2012, Cork, Ireland.
- Nagel, L.M.**, C. Swanston, M. Janowiak, and M. Powers. 2012. Silviculture Planning in the Face of Climate Change. (*Invited*) Second Annual Bureau of Indian Affairs Midwest Region Partners in Action Conference, June 25-28, 2012. Mt. Pleasant, MI.
- Nagel, L.M.** and M. Vasievich. 2012. Uneven-aged Northern Hardwood Systems in the Lake States. *Invited Presentation*, The Association of Consulting Foresters (ACF) National Conference. June 23-26, 2012, Grand Rapids, MI.
- *Previant, W.J.** and L.M. Nagel. 2012. Vernal Pool Spatial Patterns and Forest Diversity in Pictured Rocks National Lakeshore, Michigan. Poster Presentation, Western Great Lakes Resource Management Conference. April 17-28, 2012, Ashland, WI.
- Nagel, L.M.** 2012. The Art and Science of Teaching, *Invited Presentation*, Professional Development Forum, School of Forest Resources and Environmental Science, MTU. March 22, 2012.
- Nagel, L.M.** 2012. Forest Ecology in the Changing Climate. (*Invited Plenary*) National Indian Forestry and Wildland Fire Management Conference, The Changing Climate: People, Land and Resources. March 6-8, 2012. San Diego, CA.
- Nagel, L.M.** 2012. Adaptive Silviculture in the Changing Climate. (*Invited Panel*) National Indian Forestry and Wildland Fire Management Conference, The Changing Climate: People, Land and Resources. March 6-8, 2012. San Diego, CA.
- Nagel, L.M.** and M.D. Powers. 2012. Adaptive Silviculture in an Uncertain Climate Future. (*Invited Video Presentation*) Regional (R8) Science Committee, Vegetation Management Meeting, hosted by TACCIMO (Template for Assessing Climate Change Impacts and Management Options). January 25, 2012.

2011

- *Previant, W.**, L.M. Nagel and C.R. Webster. 2011. Demographic Change After 50 Years of Northern Hardwood Silviculture. Poster Presentation, Society of American Foresters (SAF) National Convention. November 2-6, 2011, Honolulu, HI.
- Nagel, L.M.** 2011. Continuing Forestry Education for Silviculturists in the United States Forest Service. Oral Presentation, International Union of Forest Research Organizations (IUFRO) Conference on Competence Development for Forestry. September 26–October 1, Freiburg, Germany.
- Nagel, L.M.** 2011. Forest Ecology and Management in Great Lakes Temperate Forests. Oral Presentation, ATLANTIS Program Annual Conference. August 2-4, 2011, Helsinki, Finland.
- Nagel, L.M.** 2011. Ecology and Management of Northern Temperate Forests. (*Invited*) to Departamento de Ecología y Sistemática Terrestres, El Colegio de la Frontera Sur., June 7, 2011, San Cristóbal de Las Casas, Chiapas, México.
- Nagel, L.M.** 2011. Managing Upland Hardwoods for Greater Diversity. *Invited Presentation* for the Workshop Managing Ash Stands to Prepare for the Emerald Ash Borer, hosted by the Michigan Department of Natural Resources. April 7, 2011, Iron Mountain, Michigan.

Nagel, L.M. 2011. Silviculture in the 21st Century. (*Invited Plenary*) Conference for the Wisconsin Chapters of Society of American Foresters and The Wildlife Society. March 1-3, 2011, Wisconsin Dells, Wisconsin.

2010

***Campione, M.**, W. *Previant and L. Nagel. 2010. The Response of the Herbaceous Layer after 50 Years of Management in a Northern Hardwood Forest. Poster Presentation, Society of American Foresters National Convention. October 27-31, 2010, Albuquerque, NM.

Nagel, L.M., W. *Previant and M. *Campione. 2010. Effects of 50 years of uneven-aged silviculture in northern hardwoods: A case study. Oral Presentation, 7th International Union of Forest Research Organizations (IUFRO) Conference on Uneven-aged Silviculture, 21st Century forestry: Integrating ecologically-based, uneven-aged silviculture with increased demands for forests. September 23-30, 2010, Ljubljana, Slovenia.

Twery, M., M. Janowiak, C.W. Swanston, L. Brandt, B.J. Palik, J.B. Bradford, L.M. Nagel, C.R. Webster, A.T. Hille, S.M. Johnson and L.R. Parker. 2010. Preparing forest managers for an uncertain climate. Poster Presentation, Ecological Society of America Annual Meeting, Pittsburgh, PA, August 1-6, 2010.

2009

Nagel, L.M., C.W. Swanston, M.K. Janowiak. 2009. Integrating Climate Change Considerations into Forest Management Tools and Training. Oral Presentation, 2009 National Silviculture Workshop, Boise, ID, June 15-19, 2009.

***Bal, T.L.**, A.J. Storer and L.M. Nagel. 2009. Ash phloem reduction models vary among species and growing conditions. Poster Presentation, 20th USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 13-16, 2009.

***Shartell, L.M.**, L.M. Nagel and A.J. Storer. 2009. Multi-criteria risk models for invasive exotic plants. Poster Presentation, 20th USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 13-16, 2009.

2008

***Janowiak, M.K.**, C.W. Swanston, B.J. Palik, M.J. Twery, J.B. Bradford, L.M. Nagel, C.R. Webster, L.R. Parker, A.T. Hille and S.M. Doshi. 2008. Forest Management for an Uncertain Climate Future: Tools and Training. Poster Presentation, Society of American Foresters National Convention, Reno, NV, November 5-9, 2008.

***Shartell, L.M.**, L.M. Nagel and A.J. Storer. 2008. Assessment of treatment methods for the invasive exotic plant garlic mustard (*Alliaria petiolata*). Oral Presentation, Ecological Society of America Annual Meeting, Milwaukee, WI, August 3-8, 2008.

Nagel, L.M. 2008. Revisiting the northern hardwood silviculture toolbox. (*Invited*) Michigan Society of American Foresters Spring Meeting, Marquette, MI, April 23-24, 2008.

Nagel, L.M. 2008. Seeing the forest for the trees: a look at northern hardwoods. *Invited Presentation*, Biology Departmental Seminar, April 18, 2008.

***Shartell, L.**, L.M. Nagel and A.J. Storer. 2008. Predictive modeling for invasive exotic plants at Pictured Rocks National Lakeshore. Oral Presentation, Great Lakes Research Conference, Marquette, MI, April 1-2, 2008.

Nagel, L.M., J.A. Vucetich and **M.P. Nelson**. 2008. Fusing science and ethics: tools for natural resource educators. Oral Presentation, University Education in Natural Resources, Corvallis, OR, March 13-15, 2008. (Nelson presented due to weather-related air travel in Houghton)

***Koch, R.M.**, L.M. Haugen, L.M. Nagel, M.E. Ostry and A.J. Storer. 2008. Effects of prescribed fire and fire surrogate treatments on insect pests at Muskrat Lakes Red Pine Site, Michigan. Poster Presentation, USDA Forest Service, Forest Health Monitoring Working Group Meeting, San Antonio, TX, Feb 11-14, 2008.

2007

- Nagel, L.M.** and C.R. Webster. 2007. Factors affecting diameter distribution shape in uneven-aged northern hardwoods. Oral Presentation, Society of American Foresters National Convention, Portland, OR, October 23-27, 2007.
- Webster, C.R.** and L.M. Nagel. 2007. Can historic disturbance regimes maintain tree species diversity in contemporary forests? Oral Presentation, Society of American Foresters National Convention, Portland, OR, October 23-27, 2007.
- Nagel, L.M.** 2007. Legends of the Fall: A History of Keweenaw Forests. *Invited Presentation*, Fourth Thursday in History, Keweenaw National Historic Park, September 27, 2007.
- Nagel, L.M.**, M.K. *Janowiak, and C.R. Webster. 2007. Spatial scale affects diameter distribution shape in uneven-aged northern hardwoods. Pp. 41-43 In: *Complex Stand Structures and Associated Dynamics: Measurement Indices and Modelling Approaches*; Newton, P.F., V.M. LeMay, A. Groot, P. Marshall, W. Meades, K. O'Hara, M. Sharma, and M. Ter-Mikaelian eds., Ontario Forest Research Institute, Forest Research Information Paper No. 167. International Union of Forest Research Organizations (IUFRO) Conference, Sault Ste. Marie, Ontario, Canada, July 29 – August 2, 2007.
- ***Eberhart, T.L.**, A.J. Storer and L.M. Nagel. 2007. Living with Emerald Ash Borer: Ash reduction models as silvicultural tools. Poster Presentation, 18th USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 9-12, 2007.
- ***Shartell, L.M.**, L.M. Nagel and A.J. Storer. 2007. Risk Assessment and Treatment of Garlic Mustard in Michigan's Upper Peninsula. Poster Presentation, 18th USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 9-12, 2007.
- ***Shartell, L.M.**, L.M. Nagel, A.J. Storer, M.D. Hyslop and C.R. Webster. 2007. Risk assessment of invasive plants within the National Parks of the Great Lakes Network. Poster Presentation, George Wright Society Conference on Parks, Protected Areas, and Cultural Sites, St. Paul, MN, April 16-20, 2007.
- ***Shartell, L.M.**, L.M. Nagel and A.J. Storer. 2007. Risk assessment and treatment of garlic mustard in Michigan's Upper Peninsula. Poster Presentation, 18th USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 9-12, 2007.

2006

- ***Janowiak, M.K.** and L.M. Nagel and C.R. Webster. 2006. Sampling scale and diameter distributions in northern hardwood forests. Poster Presentation, Society of American Foresters National Convention, Pittsburgh, PA, October 25-29, 2006.
- ***Eberhart, T.L.**, A.J. Storer and L.M. Nagel. 2006. Management of emerald ash borer: reducing resource availability to lower pest population potential. Poster Presentation, Society of American Foresters National Convention, Pittsburgh, PA, October 25-29, 2006.
- Nagel, L.M.** 2006. Ecological restoration in forested ecosystems: silviculture, forest composition and structure. (*Invited*) Workshop on Forest Management on National Wildlife Refuges, Madison, IN, August 8-10, 2006.
- Nagel, L.M.** 2006. Forest ecology and silvics. (*Invited*) Certificate Course in Ecosystem Silviculture, UMN North Central Research and Outreach Center, Grand Rapids, MN, July 25-27, 2006.
- Nagel, L.M.**, R.G. Corace and A.J. Storer. 2006. Managing for an exotic wetland invader: glossy buckthorn. Poster Presentation, Great Lakes Research Conference, Ashland, WI, March 22-23, 2006.
- ***Janowiak, M.K.** and L.M. Nagel and C.W. Woodall. 2006. Assessment of forests of Isle Royale National Park. Oral Presentation, Great Lakes Research Conference, Ashland, WI, March 22-23, 2006.
- ***Shartell, L.M.**, L.M. Nagel, A.J. Storer, M.D. Hyslop and C.R. Webster. 2006. Predictive modeling of invasive plants within the National Parks of the Great Lakes Network. Oral Presentation, Great Lakes Research Conference, Ashland, WI, March 22-23, 2006.
- Nagel, L.M.**, M.K. *Janowiak and C. Woodall. 2006. Vegetation of Isle Royale: Forest Inventory and Analysis. Oral Presentation, Isle Royale Vegetation Monitoring Meeting, Houghton, MI, March 9-10, 2006.

- Nagel, L.M.**, R.G. Corace and A.J. Storer. 2006. Management tools for an exotic wetland invader: glossy buckthorn. Poster Presentation, US Fish and Wildlife Service Region 3 Biological Workshop, LaCrosse, WI, February 7-9, 2006.
- Storer, A.J.**, R.M. Koch, L.M. Haugen, L.M. Nagel and M.E. Ostry. 2006. The effects of prescribed fire and mechanical treatments on insect pests and pathogens of red pine at Muskrat Lakes, Luce County, Michigan. Poster Presentation, Annual Forest Health Monitoring Meeting, Charleston, SC, January 31-February 2, 2006.
- *Shartell, L.M.**, L.M. Nagel and A.J. Storer. 2006. A predictive model for invasive plant species for the Great Lakes Network of the National Park Service. Poster Presentation, Graduate Student Council Poster Session, MTU, February 1, 2006. *Poster won first place.*
- *Janowiak, M.**, L.M. Nagel and C.W. Woodall. 2006. Characteristics of the trembling aspen-paper birch forest type on Isle Royale. Poster Presentation, Graduate Student Council Poster Session, MTU, February 1, 2006.
- *Eberhart, T.L.**, A.J. Storer and L.M. Nagel. 2006. Modeling ash phloem removal to reduce the population potential of emerald ash borer, *Agrilus planipennis*. Poster Presentation, Graduate Student Council Poster Session, MTU, February 1, 2006.
- *Koch, R.M.**, L.M. Haugen, L.M. Nagel, M.E. Ostry and A.J. Storer. 2006. The effects of prescribed fire and mechanical treatments on insect pests and pathogens at Muskrat Lakes, Luce County, Michigan. Poster Presentation, Graduate Student Council Poster Session, MTU, February 1, 2006.

2005

- *Eberhart, T.L.**, A.J. Storer and L.M. Nagel. 2005. Modeling phloem removal from forests containing ash to reduce population potentials of emerald ash borer, *Agrilus planipennis*. Poster Presentation, Entomological Society of America Annual Meeting, Fort Lauderdale, FL, December 15-18, 2005.
- *Koch, R.M.**, L.M. Haugen, L.M. Nagel, M.E. Ostry and A.J. Storer. 2005. Interactions among prescribed fire, mechanical treatments, insect pests and pathogens in red pine: pretreatment data collection. Poster Presentation, Entomological Society of America Annual Meeting, Fort Lauderdale, FL, December 15-18, 2005.
- *Eberhart, T.L.**, A.J. Storer and L.M. Nagel. 2005. Modeling phloem removal from ash stands to reduce the density of emerald ash borer, *Agrilus planipennis*. Poster Presentation, Society of American Foresters National Convention, Fort Worth, TX, October 19-23, 2005.
- Woodall, C.W.** and L.M. Nagel. 2005. Relationships between the size, density, and biomass estimates of standing live and dead down trees in forests of the Lake States. Oral Presentation and abstract published, The 7th Annual FIA Symposium, Portland, ME, October 3-6, 2005.
- Storer, A.J.**, T.L. Eberhart and L.M. Nagel. 2005. Living with emerald ash borer: Ash phloem model. Poster Presentation, Third Annual Emerald Ash Borer (*Agrilus planipennis*) Research and Technology Review Meeting, Pittsburgh, PA, September 26-27, 2005.
- *Eberhart T.L.**, A.J. Storer and L.M. Nagel. 2005. Modeling phloem removal from ash stands to reduce the density of emerald ash borer, *Agrilus planipennis*. North Central Forest Pest Workshop, LaCrosse, WI, September 2005.
- *Powers, M.D.** and L.M. Nagel. 2005. Forest management, deer herbivory, and exotic earthworm activity contribute to Pennsylvania sedge mat formation in northern hardwood forests. Oral Presentation, Ecological Society of America Annual Meeting, Montreal, Canada, August 7-12, 2005.
- Nagel, L.M.** and J. Schmierer. 2005. An integrated field practicum for forestry and applied ecology majors: lessons learned. Poster Presentation, FIRST II National Meeting (Faculty Institutes for Reforming Science Teaching), Kellogg Biological Station, MI, May 13-15, 2005.
- Nagel, L.M.**, C.R. Webster and A.J. Storer. 2005. Impact and suppression efforts for five prominent invasive plant species in northern Great Lakes forests. Oral Presentation, Fourth Annual Western Great Lakes Research Conference, Northern Michigan University, Marquette, MI, March 30-31, 2005.
- *Powers, M.D.** and L.M. Nagel. 2005. Forest management, deer herbivory, and exotic earthworm activity contribute to Pennsylvania sedge cover in Wisconsin's northern hardwood forests. Poster Presentation,

Fourth Annual Western Great Lakes Research Conference, Northern Michigan University, Marquette, MI, March 30-31, 2005.

- Storer, A.J.**, L.M. Nagel, C.R. Webster and M.D. Hyslop. 2005. A predictive model for exotic plant species for the Great Lakes Network of the U.S. National Park Service. Poster Presentation, Fourth Annual Western Great Lakes Research Conference, Northern Michigan University, Marquette, MI, March 30-31, 2005.
- ***Lund, J.M.** and L.M. Nagel. 2005. Garlic mustard (*Alliaria petiolata*): detection and management in the Upper Peninsula of Michigan. Poster presentation, First Annual ESC/BRC Graduate Research Forum, Michigan Technological University, Houghton, MI, February 25, 2005.
- ***Powers, M.D.** and L.M. Nagel. 2005. Intensive management, deer herbivory, and exotic earthworms contribute to Pennsylvania sedge invasiveness in Wisconsin's northern hardwood forests. Poster Presentation, First Annual ESC/BRC Graduate Research Forum, Michigan Technological University, Houghton, MI, February 25, 2005.
- Storer, A.J.**, L.M. Haugen, L.M. Nagel and M.E. Ostry. 2005. Interactions among prescribed fire, mechanical treatments, insect pests and pathogens in red pine. Poster Presentation, USDA Forest Service, Forest Health Monitoring (FHM) Working Group Meeting, Miami, FL, January 24-27, 2005.

2004

- Woodall, C.W.** and L.M. Nagel. 2004. Contrasts in the species composition of standing live and down dead trees as an indicator of forest stand dynamics. Oral Presentation, Ecological Society of America Annual Meeting, Portland, OR, August 2-6, 2004.
- Nagel, L.M.** and J.W. *Schwartz. 2004. Stand dynamics and structural characteristics of uneven-aged northern hardwoods in the Great Lakes States. Oral Presentation, Ecological Society of America Annual Meeting, Portland, OR, August 2-6, 2004.
- Nagel, L.M.** 2004. Teaching and assessing an Integrated Field Practicum for Forestry and Applied Ecology majors. Pages 121-130 *In* Thomas E. Kolb, compiler. Proceedings of the Fifth Biennial Conference on University Education in Natural Resources. Natural Resources and Environmental Issues, volume XII, Quinney Library, College of Natural Resources, Utah State University, Logan, UT.

2003

- Nagel, L.M.** Scope and capacity for silviculture research at MTU. Oral Presentation, Great Lakes Silviculture Summit, Michigan Technological University, Houghton, MI, April 22-23, 2003.
- ***Bodine, J.T.**, G.D. Mroz, D.D. Reed and L.M. Nagel. Long-term silvicultural cutting trial in northern hardwoods. Poster Presentation, Great Lakes Silviculture Summit, MTU, Houghton, MI, April 22-23, 2003.

2001

- Nagel, L.M.** and K.L. O'Hara. Even- and multiaged stand structures: functional comparisons in ponderosa pine. Oral Presentation, International Union of Forest Research Organizations (IUFRO), Uneven-aged Silviculture: Tradition and Practices Meeting. September 24-26, 2001, Zurich, Switzerland.
- Nagel, L.M.** and K.L. O'Hara. The influence of stand structure on light interception and ecophysiological leaf characteristics of *Pinus ponderosa*. Oral Presentation, Ecological Society of America Annual Meeting, Madison, WI, August 5-10, 2001.

1999

- Nagel, L.M.** and K.L. O'Hara. 1999. Physiological differences in even- and multiaged structures of *Pinus ponderosa*. Poster Presentation, Ecological Society of America Annual Meeting, Spokane, WA, August 8-12, 1999.

Nagel, L.M. 1999. Growth and physiology of even- and multiaged structures of ponderosa pine. (*Invited*) Inland Northwest Growth and Yield Cooperative Annual Meeting. Victoria, B.C., January 21-22, 1999.

BOOK REVIEWS & OTHER PUBLICATIONS

Nagel, L.M. 2011. Temperate and Boreal Rainforests of the World: Ecology and Conservation. Review for CHOICE 48:5688.

Nagel, L.M. 2010. Carbon sinks and climate change: forests in the fight against global warming. Review for CHOICE 48:0260

Nagel, L.M. 2009. Cottonwood and the River of Time: On Trees, Evolution, and Society. Review for CHOICE 47:2564.

Nagel, L.M. 2009. A Critique of Silviculture: Managing for Complexity. Review for CHOICE 46:5609.

Nagel, L.M. 2008. Ecology of Woodlands and Forests: Description, Dynamics and Diversity. Review for CHOICE 45:539.

Nagel, L.M. 2007. Undoing the damage: silviculture for ecologists and environmental scientists. Review for CHOICE 44:3859.

Nagel, L.M. 2003. Anatomy of a conflict: identity, knowledge, and emotion in old-growth forests. Review for CHOICE 40:4011.

Nagel, L.M. 2002. Forest dynamics and disturbance regimes: studies from temperate evergreen-deciduous forests. Review for CHOICE 40:2161.

Nagel, L.M. and R.G. Corace. 2002. Why the rift between ecology and forestry – aren't they one and the same? Upper Peninsula Environmental Coalition Newsletter 28(2):7-8.

GRADUATE STUDENT ADVISING

Jacob Muller (Ph.D.)
2019 Dissertation title: Vegetation Response to Adaptive Silviculture Treatment Aimed at Climate Change in Northern Minnesota, USA

Micaela Truslove (M.S.)
2018 Thesis title: Utilization of emerald ash borer infested trees

Jason Reinhardt (Ph.D.)
2015 Dissertation title: Developing a spatially predictive model for the restoration of Karner blue butterfly habitat; NSF GK12 Fellow

Mike Premer (Ph.D.)
2015 Thesis title: Evaluating the long-term effects of logging residue harvest in Great Lakes aspen stands

Wilfred Previant (Ph.D.)
2015 Dissertation title: Evaluating long-term and multi-scale spatial patterns across Michigan's Upper Peninsula forests

Keri Deneau (M.S.)
2013 Thesis title: Black ash as an invasive tree at Sleeping Bear Dunes ATLANTIS Program

Rocio E. Jimenez-Vazquez
(M.S.)
2012 Thesis title: Effect of reintroduction of native trees species on the community structure of the Montane cloud forests in southern Mexico USAID TIES Program

Marcella Campione (M.S.)
2011 Thesis title: Indicator Species: What will they Indicate in the Future?

Rachel Carpenter (M.S.)
2008 Thesis title: Assessment of Motivation and Performance in an Integrated Field Practicum for Ecologists and Foresters

Lindsey Shartell (M.S.) 2007	<u>Thesis title</u> : Development of a predictive model for exotic plant species for the Great Lakes Network of the US National Park Service
Maria Janowiak (M.S.) 2007	<u>Thesis title</u> : The effects of scale and sampling on the interpretation of northern hardwood diameter distributions
Jennie Lund (M.S.) 2005	<u>Thesis title</u> : Garlic mustard (<i>Alliaria petiolata</i>): detection and management in the Upper Peninsula of Michigan
Jason Collins (M.F.) 2005	Master of Forestry Degree, Coursework Option
Jon Neuendorff (M.S.) 2005	<u>Thesis title</u> : Stand structure and composition in a northern hardwood forest after 40 years of single-tree selection
Matt Powers (M.S.) 2005	<u>Thesis title</u> : Causal mechanisms and impacts of Pennsylvania sedge dominance in Wisconsin's northern hardwood forests
Joe Musolf (M.S.) 2004	<u>Thesis title</u> : Multi-dimensional density management diagrams and stand structure influence on ground flora for jack pine in the sandy outwash plains of Michigan's Upper Peninsula
Joe Schwartz (M.S.) 2004	<u>Thesis title</u> : Stand dynamics and silvicultural recommendations for uneven-aged northern hardwoods in Upper Michigan

GRADUATE STUDENT COMMITTEES

Outside of my own graduate students, I have served or am currently serving on >50 M.S./M.F. and >20 Ph.D. graduate student committees.

UNDERGRADUATE MENTORING

James Nowak Summer 2004	<u>Project Title</u> : Understory community diversity and composition following 44 years of management in second-growth northern hardwood stands (NSF Research Experience for Undergraduates)
Frances O'Donnell Summer 2005	<u>Project Title</u> : Distribution and diversity of native weeds and exotic plants in a recreational forest and Nordic ski area (NSF Research Experience for Undergraduates)
Peter Widin Spring 2011	<u>Project Title</u> : Herbaceous vegetation across Isle Royale National Park



May 25, 2022

Provost Frank Galey
Utah State University

Dear Provost Galey,

I concur with the recommendations of Department Head Karen Mock and the members of the Promotion Advisory Committee that Dr. Linda Nagel's record of research exceeds the qualifications necessary for granting tenure in the Department of Wildland Resources at Utah State University. Dr. Nagel has had an outstanding record of research accomplishment at her former academic institutions and has garnered a national reputation of scientific merit in the fields of forestry and forest ecology. I enthusiastically support the recommendation of Department Head Mock and members of Promotion Advisory Committee that Dr. Nagel be appointed as Full Professor with tenure in the Department of Wildland Resources.

Please contact me if you need additional information about this appointment.

Sincerely,

A handwritten signature in cursive script that reads "Chris Luecke".

Chris Luecke
Dean

Cc: Karen Mock
Paul Barr



S.J. & Jessie E. Quinney
College of Natural Resources
UtahStateUniversity

The Department of
Wildland Resources

Dean Chris Luecke
Quinney College of Natural Resources
Utah State University
Logan, Utah 84322

Dear Dean Luecke,

I assembled a committee of WILD full professors to review Dr. Linda Nagel's curriculum vitae as a Promotion Advisory Committee, with the task of making a recommendation to me about her appointment and tenure in the Wildland Resources department. This committee consisted of:

Dr. R. Douglas Ramsey (chairperson)
Dr. Kari Veblen
Dr. Michael Conover
Dr. James Lutz
Dr. Juan Villalba

Based on Dr. Nagel's research and teaching record, along with her administrative duties, the committee unanimously supported Dr. Nagel's appointment as a Full Professor with Tenure in the Department of Wildland Resources. This recommendation is consistent with her appointment as a Full Professor with tenure at Colorado State University and previously at the University of Minnesota. I agree wholeheartedly with the committee's assessment and recommendation. Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Karen Mock'.

Karen Mock, Department Head
Wildland Resources Department
Utah State University



May 25, 2022

Provost Frank Galey
Utah State University

Dear Provost Galey,

I concur with the recommendations of Department Head Karen Mock and the members of the Promotion Advisory Committee that Dr. Linda Nagel's record of research exceeds the qualifications necessary for granting tenure in the Department of Wildland Resources at Utah State University. Dr. Nagel has had an outstanding record of research accomplishment at her former academic institutions and has garnered a national reputation of scientific merit in the fields of forestry and forest ecology. I enthusiastically support the recommendation of Department Head Mock and members of Promotion Advisory Committee that Dr. Nagel be appointed as Full Professor with tenure in the Department of Wildland Resources.

Please contact me if you need additional information about this appointment.

Sincerely,

A handwritten signature in cursive script that reads "Chris Luecke".

Chris Luecke
Dean

Cc: Karen Mock
Paul Barr

PRESIDENT'S REPORT

1. Recent Events

- a. USU Commencement Ceremony – May 5, 2022
- b. USU Commencement Convocations – May 5-6, 2022
- c. Mountain West Board of Directors Legal and Finance Committee Virtual Meeting – May 17, 2022
- d. Utah Board of Higher Education Meeting – Salt Lake City, Utah – May 20, 2022
- e. Mountain West Board of Directors Virtual Meeting – May 20, 2022
- f. Navajo Nation Signing of Federal Reserved Water Rights Settlement Agreement – Monument Valley, Utah – May 27, 2022
- g. Welcome Remarks at Mormon History Association Conference Concert – June 2, 2022
- h. Mountain West Board Meeting – Colorado Springs, Colorado – June 5-7, 2022
- i. Remarks at Large Animal Genetic Editing Conference – Park City, Utah – June 8, 2022
- j. USU Foundation Board Meeting – Moab, Utah – June 9-11, 2022
- k. USU Juneteenth Activities – June 17-19, 2022
- l. Northwest Commission on Colleges and Universities Summer Commission Meetings – Reno, Nevada – June 21-24, 2022
- m. USU Board of Trustees Regular Videoconference Meeting – June 24, 2022

2. Upcoming Events

- a. Welcome Remarks at Fry Street Quartet, Chamber Music Society of Lincoln Center – July 8, 2022
- b. Utah Board of Higher Education Board of Trustee Training – Cedar City, Utah – July 12, 2022
- c. Utah Board of Higher Education Meetings – Cedar City, Utah – July 14, 2022
- d. Welcome Remarks at Research Landscapes – Salt Lake City, Utah – August 4, 2022
- e. Remarks at U.S. Meat Animal Research Center “Extraordinary Women in Ag” Webinar – August 9, 2022
- f. USU Board of Trustees Regular Meeting and Workshop – August 12, 2022

ITEM FOR ACTION

RE: Report of Investments for February 2022

The Report of Investments for February 2022 is submitted to the Board of Trustees for consideration. It has received the appropriate administrative review and approval.

EXECUTIVE SUMMARY

This set of investment reports presents investment activity for February 2022 and comparative year-to-date totals for FY 2021-2022 and FY 2020-2021.

CASH MANAGEMENT INVESTMENT POOL

The average daily fair value invested during February 2022 was \$561,628,354, up \$49,392,832 over January 2022. Total investment loss was \$2,731,319, up \$471,005 over January 2022, reflecting the increase in the amount available for investing and an increase in total investment return. The annualized total investment return was -5.84%, up 1.66% over January 2022.

Year-to-date numbers show that the average daily fair value invested for FY 2021-2022 was \$493,920,283, up \$78,849,987 (19.0%) over FY 2020-2021. Total interest income for FY 2021-2022 amounted to \$4,146,989, down \$1,928,219 (31.74%) from FY 2020-2021, reflecting an increase in the amount available for investing and a decrease in interest rates.

The total amount invested at 28 February 2022 was \$551,191,749, up \$77,561,172 (16.38%) over 28 February 2021.

ENDOWMENT POOL

The average daily fair value invested during February 2022 was \$268,007,756, down \$1,870,533 from January 2022. Interest and dividend income of \$92,203 plus net realized gains of \$146,149 totaled \$238,352 in realized income for the month.

Year-to-date numbers show that the average daily fair value invested for FY 2021-2022 was \$261,472,737, up \$43,655,189 (20.04%) over FY 2020-2021. Total realized income for FY 2021-2022 was \$7,071,826, up \$144,865 (2.09%) over FY 2020-2021. This increase resulted from \$78,516 less in interest and dividends and \$223,381 more in net realized gains during FY 2021-2022.

The total amount invested at 28 February 2022 was \$267,157,033, up \$29,748,708 (12.53%) over 28 February 2021.

OTHER INVESTMENTS

The average daily fair value invested during February 2022 was \$266,193,386, down \$1,621,593 from January 2022. Interest and dividend income of \$254,000 plus net realized gains of \$4,764 totaled \$258,764 in realized income for the month.

Year-to-date numbers show that the average daily fair value invested for FY 2021-2022 was \$264,351,484, up \$27,032,711 (11.39%) over FY 2020-2021. Total realized income for FY 2021-2022 was \$2,021,546, down \$169,791 (7.75%) from FY 2020-2021. This decrease resulted from \$109,870 more in interest and dividend income and \$279,661 more in net realized losses during FY 2021-2022.

The total amount invested at 28 February 2022 was \$265,410,877, up \$21,192,101 (8.68%) over 28 February 2021.

ENDOWMENT TRUSTS

The average daily fair value invested during February 2022 was \$6,857,877, down \$140,182 from January 2022. Interest and dividend income of \$24,796 plus net realized gains of \$61,557 totaled \$86,353 in realized gains for the month.

Year-to-date numbers show that the average daily fair value invested for FY 2021-2022 was \$6,711,022, up \$1,109,929 (19.82%) over FY 2020-2021. Total realized income for FY 2021-2022 was \$490,179, up \$521,310 (1674.57%) over FY 2020-2021. This increase resulted from \$11,261 more in interest and dividend income and \$510,049 more in net realized gains during FY 2021-2022.

The total amount invested at 28 February 2022 was \$6,739,408, up \$597,437 (9.73%) over 28 February 2021.

PLANT FUND TRUSTS

The average daily fair value invested during February 2022 was \$50,213,181, down \$516,665 from January 2022. Interest income totaled \$17,722 in realized income for the month.

Year-to-date numbers show that the average daily fair value invested for FY 2021-2022 was \$56,834,601, down \$43,189,458 (43.18%) from FY 2020-2021. Total realized income for FY 2021-2022 was \$136,262, down \$220,743 (61.83%) from FY 2020-2021. This decrease reflects the decreased amount available for investing and a decrease in the rate of return.

The total amount invested at 28 February 2022 was \$47,598,541, down \$40,290,057 (45.84%) from 28 February 2021.

SUMMARY OF INVESTMENT TRANSACTIONS

The University's average daily fair value invested for the month of February was \$1,017,806,232. Purchases totaled \$81,979,088 and sales totaled \$53,058,247. From this activity the University realized net gains of \$212,470 and earnings of \$820,440.

RECOMMENDATION

The President and Vice President for Finance and Administrative Services recommend that the Board of Trustees approve the Report of Investments for February 2022.

**RESOLUTION
UTAH STATE UNIVERSITY
BOARD OF TRUSTEES**

WHEREAS, The attached Report of Investments containing authorized transactions, documentation, and supporting papers has been filed for review by the Board of Trustees pertaining to the investment activities; and

WHEREAS, The investment transactions listed on the attached Report of Investments have been approved by the USU Controller's Office; and

WHEREAS, The investment activities listed on the attached Report of Investments are in accordance with the Utah State Money Management Act, the rules of the Utah State Money Management Council, the Utah State Uniform Prudent Management of Institutional Funds Act, and the laws and rules of Utah State University and the State of Utah; and

WHEREAS, The Chief Financial Officer for Utah State University, David T. Cowley, Vice President for Finance and Administrative Services, has certified to the best of his knowledge and belief all investment transactions listed on the attached Report of Investments were made in accordance with the guidelines, rules, and laws; and

WHEREAS, Vice President Cowley requests approval of the attached Report of Investments for the period 1 February 2022 to 28 February 2022 and comparative year-to-date totals for the periods 1 July 2021 to 28 February 2022 and 1 July 2020 to 28 February 2021; and

WHEREAS, The President of Utah State University has reviewed the attached report and recommends its approval by the Utah State University Board of Trustees; and

WHEREAS, The USU Board of Trustees has reviewed and given due consideration, review, and authorization of the investment transactions listed on the attached Report of Investments for the period 1 February 2022 to 28 February 2022 and comparative year-to-date totals for the periods 1 July 2021 to 28 February 2022 and 1 July 2020 to 28 February 2021;

NOW, THEREFORE, BE IT RESOLVED, That the USU Board of Trustees hereby approves the attached Report of Investments as presented and ratifies the transactions listed on said Report of Investments for

RESOLUTION APPROVED BY THE USU BOARD OF TRUSTEES:

Date



UTAH STATE UNIVERSITY
REPORT OF INVESTMENTS
FEBRUARY 2022

The following schedules (A through E2) provide a report of the University's Investments. To the best of my knowledge, Utah State University is in compliance with the Utah State Money Management Act and the rules of the Utah State Money Management Council and the Utah State Uniform Prudent Management of Institutional Funds Act.

A handwritten signature in blue ink, appearing to read 'Danford R. Christensen', written over a horizontal line.

Danford R. Christensen
Controller

A handwritten date '6/10/22' in blue ink, written over a horizontal line.

Date

A handwritten signature in blue ink, appearing to read 'David T. Cowley', written over a horizontal line.

David T. Cowley
Vice President
for Finance and Administrative Services

A handwritten date '6/13/22' in blue ink, written over a horizontal line.

Date

UTAH STATE UNIVERSITY
CASH MANAGEMENT INVESTMENT POOL
SUMMARY REPORT OF INVESTMENTS AND INVESTMENT INCOME

Schedule A-1

	Beginning Fair Value	Purchases	Sales Proceeds	Change in Fair Value	Ending Fair Value	Average Daily Fair Value	Total Interest Income	Less Service Charges	Net Interest Income
Jul 2021	\$418,202,496	\$21,952,000	\$0	\$735,445	\$440,889,941	\$431,603,509	\$536,875	\$9,661	\$527,214
Aug 2021	440,889,941	39,285,854	19,003,778	(502,059)	460,669,958	451,474,903	580,149	(15)	580,164
Sep 2021	460,669,958	70,980,000	33,000,000	(2,202,372)	496,447,586	492,055,521	485,374	(50)	485,424
Oct 2021	496,447,586	6,986,000	0	(1,228,115)	502,205,471	500,335,650	474,608	4,325	470,283
Nov 2021	502,205,471	10,187,000	16,526,894	51,265	495,916,842	500,141,115	552,478	0	552,478
Dec 2021	495,916,842	7,000,000	0	(1,036,699)	501,880,143	501,887,691	469,740	(75)	469,815
Jan 2022	501,880,143	71,328,014	42,000,000	(3,680,629)	527,527,528	512,235,522	478,305	4,064	474,241
Feb 2022	527,527,528	72,565,000	45,600,000	(3,300,779)	551,191,749	561,628,354	569,460	(16)	569,476
Mar 2022									
Apr 2022									
May 2022									
Jun 2022									

Comparative Totals:

Year-to-date									
FY 2021-22	\$418,202,496	\$300,283,868	\$156,130,672	(\$11,163,943)	\$551,191,749	\$493,920,283	\$4,146,989	\$17,894	\$4,129,095
FY 2020-21	335,205,357	197,848,767	58,856,765	(566,782)	473,630,577	415,070,296	6,075,208	21,884	6,053,324
Amt Change					77,561,172	78,849,987	(1,928,219)	(3,990)	(1,924,229)
% Change					16.38%	19.00%	-31.74%	-18.23%	-31.79%

Note: The Cash Management Investment Pool includes cash of all funds over estimated daily operating requirements.

UTAH STATE UNIVERSITY
 CASH MANAGEMENT INVESTMENT POOL
 SUMMARY OF INVESTMENT TRANSACTIONS AND PERFORMANCE
 For the Month of February 2022

Schedule A-2

	Purchases	Sales		Earnings	Change in Fair Value	Total Investment Income	Average Daily Fair Value	Annualized Total Investment Return
		Cost	Receipts					
Money Market Account				\$21,244		\$21,244	\$68,200,000	0.37%
Utah Public Treasurers' Investment Fund		\$17,000,000	\$17,000,000	15,298		15,298	41,921,429	0.44%
Commercial Paper and Corporate Notes	\$50,565,000	27,000,000	27,000,000	227,591	\$25,927	253,518	194,581,148	1.56%
Obligations of U. S. Government	22,000,000			294,948	(3,283,678)	(2,988,730)	251,150,777	-14.28%
Municipal Bonds		1,600,000	1,600,000	10,379	(43,029)	(32,650)	5,775,000	-6.78%
Total	<u>\$72,565,000</u>	<u>\$45,600,000</u>	<u>\$45,600,000</u>	<u>\$569,460</u>	<u>(\$3,300,779)</u>	<u>(\$2,731,319)</u>	<u>\$561,628,354</u>	-5.84%

UTAH STATE UNIVERSITY
SUMMARY OF CASH MANAGEMENT INVESTMENT POOL TRANSACTIONS
For the Month of February 2022

Schedule A-3

	Purchases		Sales			Earnings
	Shares	Cost	Shares	Cost	Receipts	
<u>Cash Management Investment Pool</u>						
Money Market Account						\$21,244
Utah Public Treasurers' Investment Fund				\$17,000,000	\$17,000,000	\$0
Corporate Bonds and Floaters		\$50,565,000		27,000,000	27,000,000	0
Obligations of U. S. Government		22,000,000				294,948
Municipal Bonds				1,600,000	1,600,000	0
Total Cash Management Investment Pool		<u>\$72,565,000</u>		<u>\$45,600,000</u>	<u>\$45,600,000</u>	<u>\$0</u>
						<u>\$569,460</u>

UTAH STATE UNIVERSITY
 ENDOWMENT POOL
 SUMMARY REPORT OF INVESTMENTS AND INVESTMENT INCOME

Schedule B-1

	Beginning Fair Value	Purchases	Sales Proceeds	Change in Fair Value	Ending Fair Value	Average Daily Fair Value	Total Interest and Dividends	Realized Gain or (Loss)	Total Realized Income	Less Expenses	Net Realized Income/(Loss)
*Jul 2021	\$252,565,749	\$3,455,085	\$3,335,205	\$1,198,488	\$253,884,117	\$253,224,933	\$123,077	\$21,701	\$144,778	\$3,197	\$141,581
Aug 2021	253,884,117	3,177,995	2,817,011	2,932,444	257,177,545	255,530,831	163,503	622,753	786,256	\$4,140	782,116
Sep 2021	257,177,545	6,470,216	5,462,488	(1,684,285)	256,500,988	256,839,267	382,651	819,909	1,202,560	88,745	1,113,815
Oct 2021	256,500,988	9,694,614	8,853,523	6,853,794	264,195,873	260,348,431	158,069	1,512,950	1,671,019	16,138	1,654,881
Nov 2021	264,195,873	3,624,640	3,005,084	(4,410,027)	260,405,402	262,300,638	132,815	694,364	827,179	7,661	819,518
Dec 2021	260,405,402	6,432,062	4,426,498	8,487,132	270,898,098	265,651,750	561,855	1,515,859	2,077,714	115,014	1,962,700
Jan 2022	270,898,098	6,261,990	3,768,486	(4,533,123)	268,858,479	269,878,289	151,511	(27,543)	123,968	18,642	105,326
Feb 2022	268,858,479	5,608,326	4,264,623	(3,045,149)	267,157,033	268,007,756	92,203	146,149	238,352	3,360	234,992
Mar 2022											
Apr 2022											
May 2022											
Jun 2022											

Comparative Totals:

Year-to-date

FY 2021-22	\$252,565,749	\$44,724,928	\$35,932,918	\$5,799,274	\$267,157,033	\$261,472,737	\$1,765,684	\$5,306,142	\$7,071,826	\$256,897	\$6,814,929
FY 2020-21	199,048,724	79,822,142	69,043,341	27,580,800	237,408,325	217,817,548	1,844,200	5,082,761	6,926,961	383,332	6,543,629
Amt Change					29,748,708	43,655,189	(78,516)	223,381	144,865	(126,435)	271,300
% Change					12.53%	20.04%	-4.26%	4.39%	2.09%	-32.98%	4.15%

Note: The Endowment Pool includes endowment funds designated for long-term investment. Included in this pool are endowment funds invested in the University's Cash Management Investment Pool (CMIP) consisting of \$11,783,936 principal beginning balance, a \$11,051,091 ending balance, and a \$12,187,801 average daily balance for the current month. Current month interest and dividends from the CMIP were \$12,296 bringing the total to \$71,299 year-to-date. These amounts have also been reported in Schedules A-1 and A-2.

*The July beginning fair value has been adjusted to reflect the amount distributed to expendable accounts at fiscal year end.

UTAH STATE UNIVERSITY
SUMMARY OF ENDOWMENT POOL TRANSACTIONS
For the Month of February 2022

Schedule B-2
Page 1 of 1

Endowment Pool Transactions	Purchases		Sales			Earnings	
	Shares	Cost	Shares	Cost	Receipts		Gain/(Loss)
Cash Management Investment Pool							
Utah State University		\$1,254,859		\$2,000,000	\$2,000,000	\$0	\$12,296
CMP Interest		12,296					
Fixed Income funds							
Longfellow		603,006		513,485	502,477	(11,008)	
Paydenfunds - Emerging Markets Bond Fund	864.242	10,233					10,233
Wellington - CTF Opportunistic Emerging Markets	970.209	9,033	334.310	3,468	3,360	(108)	9,033
Alternatives							
Commonfund							
CEP VII				0	35,227	35,227	1,089
CEP VIII				8,940	87,608	78,668	1,788
Fort Washington Capital Partners Group							
Fort Washington Private Equity Investors X, LP		450,000					
Global Infrastructure Partners							
Global Infrastructure Partners IV-A/B, L.P.		1,143,438					
Solamere Capital							
Solamere Founders Fund II, LP				6,447	49,817	43,370	8,791
Money Market Funds							
US Bank - Endowment Pool First Am Treas Ob Fd Cl Z		1,184,330		593,438	593,438	0	
US Bank - Longfellow First Am Treas Ob Fund Cl Z		487,480		639,732	639,732	0	
Accruals / Payable							
Endowment Pool							
US Bank - Accruals		4		8	8	0	4
Longfellow							
US Bank - Pending Trades		404,678		302,211	302,211	0	
US Bank Receivable - Interest Accrual		48,969		50,745	50,745	0	48,969
Total Endowment Pool Transactions		\$5,608,326		\$4,118,474	\$4,264,623	\$146,149	\$92,203

UTAH STATE UNIVERSITY
DEFENSIVE RETURN POOL
SUMMARY REPORT OF INVESTMENTS AND INVESTMENT INCOME

Schedule C1A

	Beginning Fair Value	Purchases	Sales Proceeds	Change in Fair Value	Ending Fair Value	Average Daily Fair Value	Total Interest and Dividends	Realized Gain or (Loss)	Total Realized Income
Jul 2021	\$226,770,652	\$2,735,491	\$2,549,378	\$1,325,198	\$228,281,963	\$227,526,308	\$186,113	(\$32,710)	\$153,403
Aug 2021	228,281,963	1,127,728	1,397,141	(303,387)	227,709,163	227,995,563	285,006	(5,000)	280,006
Sep 2021	227,709,163	743,136	354,722	(1,234,045)	226,863,532	227,286,348	340,268	66,265	406,533
Oct 2021	226,863,532	36,981,541	33,361,373	607,975	231,091,675	228,977,604	247,142	(26,317)	220,825
Nov 2021	231,091,675	6,324,557	2,279,168	(231,535)	234,905,529	232,998,602	257,148	0	257,148
Dec 2021	234,905,529	2,600,536	3,827,919	(553,868)	233,124,278	234,014,904	350,077	(326,056)	24,021
Jan 2022	233,124,278	8,868,010	4,935,845	(3,352,606)	233,703,837	233,414,058	211,068	65,375	276,443
Feb 2022	233,703,837	2,958,046	821,257	(2,885,413)	232,955,213	233,329,525	252,925	0	252,925
Mar 2022									
Apr 2022									
May 2022									
Jun 2022									

Comparative Totals:

Year-to-date									
FY 2021-22	\$226,770,652	\$62,339,045	\$49,526,803	(\$6,627,681)	\$232,955,213	\$230,692,864	\$2,129,747	(\$258,443)	\$1,871,304
FY 2020-21	202,376,354	46,296,035	35,358,109	767,374	214,081,654	209,463,091	2,059,997	33,908	2,093,905
Amt Change					18,873,559	21,229,773	69,750	(292,351)	(222,601)
% Change					8.82%	10.14%	3.39%	-862.19%	-10.63%

Note: The Defensive Return Pool is comprised of quasi-endowment funds designated for long-term investment. Included in this pool are quasi-endowment funds invested in the University's Cash Management Investment Pool (CMIP) consisting of \$121,071,133 principal beginning balance, a \$122,858,045 ending balance and a \$122,906,521 average daily balance for the current month. Current month interest and dividends from the CMIP were \$125,445 bringing the total to \$976,742 year-to-date. These amounts have also been reported in Schedules A-1 and A-2.

*The July beginning fair value has been adjusted to reflect the amount distributed to expendable accounts at fiscal year end.

UTAH STATE UNIVERSITY
OTHER INVESTMENTS
SUMMARY REPORT OF INVESTMENTS AND INVESTMENT INCOME

Schedule C2A

	Beginning Fair Value	Purchases	Sales Proceeds	Change in Fair Value	Ending Fair Value	Average Daily Fair Value	Total Interest and Dividends	Realized Gain or (Loss)	Total Realized Income
Jul 2021	\$32,803,523	\$236,623	\$216,379	\$474,808	\$33,298,575	\$33,051,049	\$1,461	\$6,488	\$7,949
Aug 2021	33,298,575	371,162	429,186	736,171	33,976,722	33,637,649	818	70,457	71,275
Sep 2021	33,976,722	422,811	419,820	(1,305,504)	32,674,209	33,325,466	3,374	2,941	6,315
Oct 2021	32,674,209	32,733	64,119	1,545,507	34,188,330	33,431,270	1,572	5,527	7,099
Nov 2021	34,188,330	27,097	22,575	(493,160)	33,699,692	33,944,011	1,372	5,823	7,195
Dec 2021	33,699,692	3,232,646	2,560,767	1,158,214	35,529,785	34,614,739	59,343	(19,568)	39,775
Jan 2022	35,529,785	736,766	1,391,888	(1,602,606)	33,272,057	34,400,921	1,280	3,515	4,795
Feb 2022	33,272,057	11,089	70,393	(757,089)	32,455,664	32,863,861	1,075	4,764	5,839
Mar 2022									
Apr 2022									
May 2022									
Jun 2022									

Comparative Totals:

Year-to-date									
FY 2021-22	\$32,803,523	\$5,070,927	\$5,175,127	(\$243,659)	\$32,455,664	\$33,658,620	\$70,295	\$79,947	\$150,242
FY 2020-21	25,497,207	3,741,691	3,650,063	4,548,287	30,137,122	27,855,682	30,175	67,257	97,432
Amt Change					2,318,542	5,802,938	40,120	12,690	52,810
% Change					7.69%	20.83%	132.96%	18.87%	54.20%

UTAH STATE UNIVERSITY
SUMMARY OF OTHER INVESTMENT TRANSACTIONS
For the Month of February 2022

Schedule C2C
Page 1 of 1

	Purchases		Sales			Earnings	
	Shares	Cost	Shares	Cost	Receipts		Gain/(Loss)
Other Investments							
Common and Preferred Stock							
Morgan Stanley							
Fidelity Strategic Dividend & Income			120.000	\$2,060.00	\$2,063.00	\$3.00	
Utah Public Treasurers'							
Investment Fund		\$57.00				\$57.00	
ETF / Bonds / Mutual Funds							
Charles Schwab							
Bond Funds							
Janus Henderson Multi Sector Income Fund	16.302	156				156	
PIMCO Income Instl	22.869	262				262	
Western Asset Core Plus Bond	14.078	158				158	
Commonfund							
CEU Title III							
Multi-Strategy Bond			78.015	903	1,226	323	
Multi-Strategy Equity			8.719	534	4,972	4,438	
TD Ameritrade							
Exchange Traded Funds							
Exchange Traded Funds Earnings						76	
Fixed Income							
Citigroup Global Markets Holdings 08/01/2023	50.000	5,000					
Citigroup Global Markets Holdings 08/01/2023	50.000	5,000					
Fixed Income Earnings						338	
Stocks							
Stocks Earnings						28	
Alternatives							
InvenTrust Properties							
Highlands REIT, Inc	1,885.000	0	18,843.839	0	0	0	
Money Market / Cash							
TD Ameritrade Cash		14		13	13	0	
TD Ameritrade Deposit Account		442		10,000	10,000	0	
Receivable / In Transit / Unsettled Purchases							
Morgan Stanley - Unsettled Trades				52,119	52,119	0	
Total Other Investments		<u>\$11,089</u>		<u>\$65,629</u>	<u>\$70,393</u>	<u>\$4,764</u>	<u>\$1,075</u>

UTAH STATE UNIVERSITY
 ENDOWMENT TRUSTS
 SUMMARY REPORT OF INVESTMENTS AND INVESTMENT INCOME

Schedule D-1

	Beginning Fair Value	Purchases	Sales Proceeds	Change in Fair Value	Ending Fair Value	Average Daily Fair Value	Total Interest and Dividends	Realized Gain or (Loss)	Total Realized Income/(Loss)	Less Expenses	Net Realized Income/(Loss)
Jul 2021	\$6,689,873	\$1,035,170	\$1,249,992	(\$3,409)	\$6,471,642	\$6,580,758	\$13,776	\$80,483	\$94,259	\$650	\$93,609
Aug 2021	6,471,642	574,124	555,527	144,656	6,634,895	6,553,269	25,579	21,895	47,474	135	47,339
Sep 2021	6,634,895	676,133	655,043	(176,080)	6,479,905	6,557,400	21,088	161,518	182,606	(2)	182,608
Oct 2021	6,479,905	721,535	708,665	232,080	6,724,855	6,602,380	13,426	15,299	28,725	657	28,068
Nov 2021	6,724,855	697,669	678,894	(77,509)	6,666,121	6,695,488	18,775	9,431	28,206	0	28,206
Dec 2021	6,666,121	630,859	602,960	325,751	7,019,771	6,842,946	27,899	(32,254)	(4,355)	0	(4,355)
Jan 2022	7,019,771	410,349	401,692	(52,082)	6,976,346	6,998,059	9,314	17,597	26,911	657	26,254
Feb 2022	6,976,346	811,310	786,656	(261,592)	6,739,408	6,857,877	24,796	61,557	86,353	142	86,211
Mar 2022											
Apr 2022											
May 2022											
Jun 2022											
<hr/> <hr/>											
Comparative Totals:											
Year-to-date											
FY 2021-22	\$6,689,873	\$5,557,149	\$5,639,429	\$131,815	\$6,739,408	\$6,711,022	\$154,653	\$335,526	\$490,179	\$2,239	\$487,940
FY 2020-21	5,198,575	4,465,739	4,333,081	810,738	6,141,971	5,601,093	143,392	(174,523)	(31,131)	2,108	(33,239)
Amt Change					597,437	1,109,929	11,261	510,049	521,310	131	521,179
% Change					9.73%	19.82%	7.85%	292.25%	1674.57%	6.21%	1567.97%

Note: Endowment Trusts include externally managed endowment trusts.

UTAH STATE UNIVERSITY
SUMMARY OF ENDOWMENT TRUST INVESTMENT TRANSACTIONS
For the Month of February 2022

Schedule D-2
Page 1 of 1

	Purchases		Sales			Earnings	
	Shares	Cost	Shares	Cost	Receipts		Gain/(Loss)
Endowment Trusts							
Common and Preferred Stock							
Abbie Inc Com			1,035.000	\$74,624	\$146,527	\$71,903	
Atlantica Sustainable Infr. Plc			0.000	2,608	0	(2,608)	
Comcast Corp (NEW) Class A	2,700.000	\$134,453					
Crown Castle Intl Corp	400.000	72,188					
Intl Business Machines Corp	500.000	69,170					
Royal Dutch Shell Plc			4,000.000	236,034	236,034	0	
Shell PLC ADR	4,000.000	236,034					
iShares Preferred & Income			3,500.000	134,481	126,743	(7,738)	
Funds held at Morgan Stanley - Dividends						\$24,495	
Mutual Funds - Bond							
Funds held at Wells Fargo - Dividends						300	
Money Market & Cash Funds							
Morgan Stanley MSILF Govt Sec Part		299,164		275,952	275,952	0	
Morgan Stanley Cash				1,400	1,400	0	
Federated Govt Obligations Prm #117		152					
Federated Govt Obligations Prm #117		149					
Total Endowment Trusts		\$811,310		\$725,099	\$786,656	\$61,557	\$24,796

UTAH STATE UNIVERSITY
PLANT FUND TRUSTS
SUMMARY REPORT OF INVESTMENTS AND INVESTMENT INCOME

Schedule E-1

	Beginning Fair Value	Purchases	Sales Proceeds	Change in Fair Value	Ending Fair Value	Average Daily Fair Value	Total Interest Income	Realized Gain or (Loss)	Total Realized Income	Less Expenses	Net Realized Income/(Loss)
Jul 2021	\$66,189,244	\$22,634	\$1,496,410	\$0	\$64,715,468	\$65,333,503	\$19,973	\$0	\$19,973	\$0	\$19,973
Aug 2021	64,715,468	20,277	6,713,289	0	58,022,456	59,993,940	16,731	0	16,731	0	16,731
Sep 2021	58,022,456	1,652,303	1,511,856	0	58,162,903	58,885,840	15,412	0	15,412	0	15,412
Oct 2021	58,162,903	17,064	4,334,218	0	53,845,749	55,085,971	15,499	0	15,499	0	15,499
Nov 2021	53,845,749	16,951,687	7,039,149	0	63,758,287	60,629,777	17,238	0	17,238	0	17,238
Dec 2021	63,758,287	18,742	12,346,081	0	51,430,948	53,804,753	16,879	0	16,879	0	16,879
Jan 2022	51,430,948	16,879	2,359,285	0	49,088,542	50,729,846	16,808	0	16,808	0	16,808
Feb 2022	49,088,542	25,318	1,515,319	0	47,598,541	50,213,181	17,722	0	17,722	0	17,722
Mar 2022											
Apr 2022											
May 2022											
Jun 2022											
<hr/> <hr/>											
Comparative Totals:											
Year-to-date											
FY 2021-22	\$66,189,244	\$18,724,904	\$37,315,607	\$0	\$47,598,541	\$56,834,601	\$136,262	\$0	\$136,262	\$0	\$136,262
FY 2020-21	106,054,187	9,253,234	27,418,823	0	87,888,598	100,024,059	357,005	0	357,005	0	357,005
Amt Change					(40,290,057)	(43,189,458)	(220,743)	0	(220,743)	0	(220,743)
% Change					-45.84%	-43.18%	-61.83%	0.00%	-61.83%	0.00%	-61.83%

Note: Plant Fund Trusts include all debt service reserve and construction fund accounts in compliance with bond issue covenants.

UTAH STATE UNIVERSITY
SUMMARY OF PLANT TRUST INVESTMENT TRANSACTIONS
For the Month of February 2022

Schedule E-2

	Purchases		Sales			Earnings	
	Shares	Cost	Shares	Cost	Receipts		Gain/(Loss)
<u>Plant Trusts</u>							
Utah Public Treasurers' Investment Fund		\$25,317		\$1,515,318	\$1,515,318	\$0	\$17,722
Total Plant Trusts		<u>\$25,317</u>		<u>\$1,515,318</u>	<u>\$1,515,318</u>	<u>\$0</u>	<u>\$17,722</u>

24 June 2022

ITEM FOR INFORMATION

RE: Revised 500 Level Policies

The attached policies are submitted to the Board of Trustees as information. The policies received the appropriate administrative review and approval.

EXECUTIVE SUMMARY

The University combined Policy 506 Uniform Wiring for Voice/Data and Policy 552 Wireless Network Deployment & Access to create Policy 552 Uniform Wired and Wireless Data Networks as shown in the following documents that includes redlined and final versions of the policy.

Policy 518 Cell Phones was revised as shown in the following documents that includes redlined and final versions of the policy

Consistent with USU Policy 203, the revised and new policies were presented to and approved by the Executive Committee and President.



~~Policy 506: Uniform Wiring for Voice/Data~~

Section: Operating Policies

Sub-Section: General

Policy Number: 506

Subject: ~~Uniform Wiring for Voice/Data~~

Origin Date: ~~October 27, 1997~~

Effective Date: ~~October 27, 1997~~

[Download PDF File](#)



506.1 POLICY

~~All new construction, remodeling, and extensions to the Campus telecommunications/data communications infrastructure will comply with the Uniform Wiring specifications adopted when the Intecom Telephone System was installed, subject to revision based upon technological advances. Maintenance of the data communications component will be the sole responsibility of the Office of Telecommunications and Telephone Services.~~

506.2 DEFINITIONS

~~The Uniform Wiring infrastructure consists of all cabling, wiring, electronics, UPS systems and switching equipment originating at the BDF (Building Distribution Frame) services and terminating at the wall plate in individual rooms/offices. In the case of voice communications, the telephone device is included.~~

506.3 PROCEDURES

~~Campus Planning and Engineering will ensure that all new voice/data wiring installations comply with the Uniform Wiring specifications. Computer Services/Telecommunications will install all necessary electronics (bridges, routers, switches, hubs, UPS systems, etc.) for these communications at the expense of the project and/or department. Maintenance and replacement of all installed communications infrastructure will be the sole responsibility of Computer Services/Telecommunications respectively with funding provided via telephone service charges and data communications surcharges. User departments are not authorized to make modifications/repairs to this system.~~



~~Policy 552: Wireless Network Deployment & Access~~

~~Section: Operating Policies~~

~~Sub-Section: Information Technology~~

~~Policy Number: 552~~

~~Subject: Wireless Network Deployment & Access~~

~~Origin Date: February 1, 2008~~

~~Effective Date: February 1, 2008~~

~~[Download PDF File](#)~~



~~552.1 PURPOSE~~

~~Wireless network technologies play an increasingly important role at Utah State University. The purpose of this policy is to establish the intent, direction, and expectation with respect to the deployment (including installation, operation, and maintenance) of wireless technology at Utah State University. USU Information Technology (IT) is taking on the initiative to provide 100% wireless coverage for the institution.~~

~~552.2 POLICY~~

~~Information Technology shall design, deploy, manage, and coordinate a secure wireless networking service for the University. This wireless system will allow faculty, staff, students, and sponsored guests at USU ready-access to the internet and USU infrastructure, where authorized, 24 hours a day, 7 days per week, except when system maintenance is required.~~

~~Wireless access points deployed by others which create radio frequency interference with this wireless service or duplicate existing wireless services will be disconnected from the network to avoid security breaches and other IT operation problems. Separate deployments for research evaluation or training needs should be coordinated with IT to avoid interference and duplication.~~

~~IT shall have the sole charge and responsibility for the University's wireless networking system including establishing procedures for use at USU and adopting standards consistent with current industry best practices.~~

University Policy 552: Uniform Wired and Wireless Data Networks

Category: Operating Policies

Subcategory: Information Technology

Covered Individuals: All Employees and Contractors

Responsible Executive: Vice President for Finance and Administrative Services

Policy Custodian: Chief Information Officer, Information Technology Service

Last Revised: 2022/05/25

[Previous USU Policy Numbers: 506 Uniform Wiring for Voice/Data \(1997\) and 552 Wireless Network Deployment & Access \(2008\)](#)

[552.1 PURPOSE AND SCOPE](#)

[The purpose of this policy is to establish and maintain standardized, uniform, and centralized wired and wireless data networks, infrastructure, and connectivity under the direction and operation of Information Technology Services \(ITS\).](#)

[552.2 POLICY](#)

[2.1 ITS has sole responsibility for the design, deployment, management, and maintenance of uniform wired and wireless data networks and infrastructure for Utah State University \(USU\).](#)

[2.2 ITS is directed to establish, update, and maintain uniform wiring and wireless standards and specifications for USU, in accordance with industry best practices.](#)

[2.3 ITS shall coordinate all Internet Service Providers for and on behalf of Utah State University.](#)

[2.4 ITS, or ITS directed contractors, will install new data communications infrastructure and electronics \(fiber, cable, routers, switches, access points, distributed antenna systems \(DAS\) such as cellular or first-responder signal repeaters, central security camera systems, UPS systems, etc.\) according to USU standards at the expense of the requesting project and/or unit. Ongoing maintenance and replacement of data communications infrastructure on USU property will be the responsibility of ITS.](#)

[2.5 Units outside of ITS are not authorized to make or direct new installations, modifications, extensions, repairs, or replacements to USU wired or wireless networks or network infrastructure, or on USU property \(see Uniform Infrastructure definition for scope\). Separate network deployments for specialized needs must be pre-approved by and coordinated with ITS to avoid interference and duplication.](#)

[2.6 Unauthorized data infrastructure and/or networks, including wireless access points that create radio frequency interference, duplicate services, violate code or USU standards, or create unauthorized entry points to USU networks, systems, or services will be disconnected from the network by ITS.](#)

[552.3 RESPONSIBILITIES](#)

[3.1 ITS shall establish and maintain uniform standards for wired and wireless networks, and direct the design, deployment, management, and maintenance of data networks at USU, including ensuring that all new data installations comply with uniform standards.](#)

[552.4 REFERENCES](#)

[See Resources](#)

[552.5 RELATED USU POLICIES](#)

- [Information Technology Policies \(550-579\)](#)

[552.6 DEFINITIONS](#)

- **Internet Service Provider (ISP)** - An internet service provider (ISP) is any entity that provides internet service to USU local networks, entities, and/or locations. Utah Education and Telehealth Network (UETN.org) is a primary, but not exclusive provider of such services.
- **Uniform Infrastructure** - The uniform wired and wireless network infrastructure referenced in this policy consists of all cabling, wiring, fiber, electronics, DAS, central system security cameras, UPS systems and other network data transmission equipment between buildings served by USU, and within USU [owned] buildings, including all USU campuses (for example USU-Eastern), terminating at the wall plate in individual rooms/offices, extending to wireless data transmission equipment such as access points and controllers, and, in the case of voice communications, the connected telephone handset.
- **Distributed Antenna System (DAS)** - A network of separated antenna nodes, often repeating/relaying external signals within buildings that may be connected to a common source via a transport medium that provides wireless service (such as cellular, radio, or life-safety signals) within a geographic area or structure.

Information below is not included as part of the contents of the official policy. It is provided only as a convenience for readers/users and may be changed at any time by persons authorized by the president.

RESOURCES

Standards

USU Design Requirements:

- <https://www.usu.edu/facilities/planning-design-and-construction/design-requirements>
- <https://www.usu.edu/facilities/files/planning-design-and-construction/DIVISION-27-IT-Requirements.pdf>

BICSI Standards:

- <https://www.bicsi.org/standards/bicsi-standards/about-the-program>

Contacts

- USU IT Services: <https://it.usu.edu>
 - Chief Information Officer, Eric Hawley, 435 797-1134
 - ITS Physical Infrastructure Team, David Tidwell, 435 797-1134
 - ITS Networks Team, Kevin Grover, 435 797-1134
 - Service Desk, 435 797-HELP

POLICY HISTORY

Original issue date: 2022/05/25

Last review date: 2022/05/25

Next scheduled review date: TBD

Previous revision dates: 2022/05/25

University Policy 552: Uniform Wired and Wireless Data Networks

Category: Operating Policies

Subcategory: Information Technology

Covered Individuals: All Employees and Contractors

Responsible Executive: Vice President for Finance and Administrative Services

Policy Custodian: Chief Information Officer, Information Technology Service

Last Revised: 2022/05/25

Previous USU Policy Numbers: 506 Uniform Wiring for Voice/Data (1997) and 552 Wireless Network Deployment & Access (2008)

552.1 PURPOSE AND SCOPE

The purpose of this policy is to establish and maintain standardized, uniform, and centralized wired and wireless data networks, infrastructure, and connectivity under the direction and operation of Information Technology Services (ITS).

552.2 POLICY

2.1 ITS has sole responsibility for the design, deployment, management, and maintenance of uniform wired and wireless data networks and infrastructure for Utah State University (USU).

2.2 ITS is directed to establish, update, and maintain uniform wiring and wireless standards and specifications for USU, in accordance with industry best practices.

2.3 ITS shall coordinate all Internet Service Providers for and on behalf of Utah State University.

2.4 ITS, or ITS directed contractors, will install new data communications infrastructure and electronics (fiber, cable, routers, switches, access points, distributed antenna systems (DAS) such as cellular or first-responder signal repeaters, central security camera systems, UPS systems, etc.) according to USU standards at the expense of the requesting project and/or unit. Ongoing maintenance and replacement of data communications infrastructure on USU property will be the responsibility of ITS.

2.5 Units outside of ITS are not authorized to make or direct new installations, modifications, extensions, repairs, or replacements to USU wired or wireless networks or network infrastructure, or on USU property (see Uniform Infrastructure definition for scope). Separate network deployments for specialized needs must be pre-approved by and coordinated with ITS to avoid interference and duplication.

2.6 Unauthorized data infrastructure and/or networks, including wireless access points that create radio frequency interference, duplicate services, violate code or USU standards, or create unauthorized entry points to USU networks, systems, or services will be disconnected from the network by ITS.

552.3 RESPONSIBILITIES

3.1 ITS shall establish and maintain uniform standards for wired and wireless networks, and direct the design, deployment, management, and maintenance of data networks at USU, including ensuring that all new data installations comply with uniform standards.

552.4 REFERENCES

See Resources

552.5 RELATED USU POLICIES

- [Information Technology Policies \(550-579\)](#)

552.6 DEFINITIONS

- **Internet Service Provider (ISP)** - An internet service provider (ISP) is any entity that provides internet service to USU local networks, entities, and/or locations. Utah Education and Telehealth Network (UETN.org) is a primary, but not exclusive provider of such services.
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- <https://www.usu.edu/facilities/files/planning-design-and-construction/DIVISION-27-IT-Requirements.pdf>

BICSI Standards:

- <https://www.bicsi.org/standards/bicsi-standards/about-the-program>

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- Service Desk, 435 797-HELP

POLICY HISTORY

Original issue date: 2022/05/25

Last review date: 2022/05/25

Next scheduled review date: TBD

Previous revision dates: 2022/05/25

ITEM FOR ACTION

Re: Amendments to USU Policy 518: Cell Phones

Key

- Red – Deletions
- Blue – Additions
- Black – Original to Policy
- Green – Movements of original text placement

SUMMARY OF CHANGES

- **Reformatted Policy-**
 - Due to the new guidance on policy format
 - Updated the responsibilities of each individual
- **Updated Process-**
 - Communication Allowance Request Forms are now submitted electronically
- **Updated Expectations-**
 - After further review of IRS guidelines, we removed the line for the annual review of the cell phone bill

University Policy 518: Cell Phones

Category: Operating

Subcategory: General

Covered Individuals: All Departments and Employees

Responsible Executive: Vice President Finance and Administration Services

Policy Custodian: Controller's Office, Controller

Last Revised: ~~2012/07/04~~ [2022/05/25](#)

Previous USU Policy Number: Same

518.1 PURPOSE AND SCOPE

The University recognizes that certain job functions require the use of a cell phone to conduct official business. This policy provides specific guidelines regarding the use of cell phones for business purposes and the methods available to accomplish this purpose.

518.2 POLICY

When the job duties of an employee require the frequent use of a cell phone to conduct University business, a department head/director may provide the employee with cell phone access using either of the following methods:

2.1 Taxable Communication Allowance

- 1) Under this method, an eligible employee will receive a monthly communication allowance to cover the cost of projected business-related charges that will be incurred under the employee's personal cell phone plan.
- 2) The communication allowance will be paid through the payroll process and is considered taxable income. The allowance does not constitute an increase to base pay and will not be included when calculating retirement contributions.
- 3) Typically, the phone device will be acquired by the employee. However, departments may offer an equipment allowance, at their own discretion, if the allowance is justified for business purposes.
- 4) The employee must retain an active cell phone contract for as long as the allowance is in place. Because the cell phone contract is paid personally by the employee, and the allowance provided is taxable income, the employee may use the phone for both business and personal purposes as needed.
- 5) The allowance amounts will be determined at the department level and should be appropriate for required business-related needs. The employee may, at his or her own expense, add extra services or equipment features as desired.
- 6) The communication allowance is established by submitting a completed "[Communication Allowance Request Form](#)" ~~to the Payroll Office through Service Now.~~ ~~Departments should also keep a copy of the form on file for each approved allowance~~

2.2 Non-Taxable Communication Allowance

- 1) Under this method, an eligible employee will receive a monthly communication allowance to reimburse the cost of a cell phone plan (including smart phones) which is required to facilitate work outside the office or office hours and is not for compensatory reasons.
- 2) The communication allowance will be paid through the payroll process and will be specifically identified on a separate line. The allowance is considered non-taxable income and does not constitute an increase to base pay and will not be included when calculating retirement contributions.
- 3) Typically, the phone device will be acquired by the employee. However, departments may offer an equipment allowance, at their own discretion, if the allowance is justified for business purposes.
- 4) The employee must retain an active cell phone contract for as long as the allowance is in place and both the business and personal use of the phone will be non-taxable.
- 5) The allowance amounts will be determined at the department level and should be appropriate for required business-related needs. ~~The department will conduct an annual review of the cell phone bill with the employee to substantiate that the reimbursement allowance is not in excess of reasonable expenses. Each year a copy of one month's cell phone bill must be maintained by the department for substantiation purposes in the case of an audit.~~ The employee may, at his or her own expense, add extra services or equipment features for personal purposes as desired.
- 6) The communication allowance is established by submitting a completed "[Communication Allowance Request Form](#)" ~~to the Payroll Office through Service Now.~~ ~~Departments should also keep a copy of the form on file for each approved allowance.~~

2.3 University-Provided Cell Phone

If an employee receives a University-provided cell phone where the monthly service charge is paid from University funds, both the business and personal use of the phone will be non-taxable and no substantiation will be required as long as the cell phone is required to facilitate work outside the office or office hours and is not for compensatory reasons.

2.4 Infrequent Use of Cell Phones for Business Purposes

If infrequent business calls are made by an employee who does not receive a communication allowance or University-provided phone, departmental approval can be given to reimburse the employee for business calls that exceed personal wireless plan minutes. Appropriate documentation, such as a copy of the wireless plan billing statement and the stated business purpose of the call, should be retained to support the reimbursement.

~~2.5 University-Supported for Data-Cabled Phones~~

~~The USU Information Technology department will provide technical support for approved data-capable phones that connect to University networks. Contact USU IT at (435) 797-HELP (435-797-4357) for assistance in selecting an approved device and pricing schedule for support services~~

518.3 RESPONSIBILITIES

3.1 Controller's Office

Controller's Office will ensure Payroll processes Communication Allowance Request Forms in a timely manner and update appropriate tax related information.

3.2 Departments

Departments desiring a communications allowance for employees shall complete and approve the required form and submit it to USU Payroll. Departments will follow respective documentation and review processes outlined.

[3.3 Employees](#)

[Employees will perform the duties/obligations noted for their specific communication allowance.](#)

[3.4 USU Information Technology](#)

[2.5 University Supported for Data-Cabled Phones](#)

[The USU Information Technology department will provide technical support for approved data-capable phones that connect to University networks. Contact USU IT at \(435\) 797- HELP \(435-797-4357\) for assistance in selecting an approved device and pricing schedule for support services](#)

518.4 REFERENCES

- [Tax Treatment of Employer-Provided Cell Phones](https://www.irs.gov/pub/irs-drop/n-11-72.pdf) <https://www.irs.gov/pub/irs-drop/n-11-72.pdf>
- <http://www.irs.gov/pub/foia/ig/sbse/sbse-04-0911-083.pdf>

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RESOURCES

Related Forms and Tools

- [Communication Allowance Request Form](#)

POLICY HISTORY

Original issue date: 2007/07/01

Last review date: [2022/05/25](#) ~~2012/07/01~~

Next scheduled review date:

Previous revision dates: [2022/05/25](#), 2012/07/01, 2007/07/01

University Policy 518: Cell Phones

Category: Operating

Subcategory: General

Covered Individuals: All Departments and Employees

Responsible Executive: Vice President Finance and Administration Services

Policy Custodian: Controller's Office, Controller

Last Revised: 2022/05/25

Previous USU Policy Number: Same

518.1 PURPOSE AND SCOPE

The University recognizes that certain job functions require the use of a cell phone to conduct official business. This policy provides specific guidelines regarding the use of cell phones for business purposes and the methods available to accomplish this purpose.

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- 2) The communication allowance will be paid through the payroll process and will be specifically identified on a separate line. The allowance is considered non-taxable income and does not constitute an increase to base pay and will not be included when calculating retirement contributions.
- 3) Typically, the phone device will be acquired by the employee. However, departments may offer an equipment allowance, at their own discretion, if the allowance is justified for business purposes.
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Departments desiring a communications allowance for employees shall complete and approve the required form and submit it to USU Payroll. Departments will follow respective documentation and review processes outlined.

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Employees will perform the duties/obligations noted for their specific communication allowance.

3.4 USU Information Technology

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518.4 REFERENCES

- Tax Treatment of Employer-Provided Cell Phones <https://www.irs.gov/pub/irs-drop/n-11-72.pdf>
 - <http://www.irs.gov/pub/foia/ig/sbse/sbse-04-0911-083.pdf>
-

Information below is not included as part of the contents of the official policy. It is provided only as a convenience for readers/users and may be changed at any time by persons authorized by the president.

RESOURCES

Related Forms and Tools

- [Communication Allowance Request Form](#)

POLICY HISTORY

Original issue date: 2007/07/01

Last review date: 2022/05/25

Next scheduled review date:

Previous revision dates: 2022/05/25, 2012/07/01, 2007/07/01