

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017**

TAB	DESCRIPTION	ACTION
1	UNIVERSITY OF UTAH SCHOOL OF MEDICINE – ANNUAL REPORT	Information Item
2	EPSCOR – ANNUAL REPORT	Information Item
3	BOISE STATE UNIVERSITY – MASTER OF SCIENCE IN GENETIC COUNSELING	Motion to Approve
4	BOARD POLICY III.P. STUDENTS – FIRST READING	Motion to Approve
5	BOARD POLICY III.N. GENERAL EDUCATION – SECOND READING	Motion to Approve
6	COMPLETE COLLEGE IDAHO – GUIDED PATHWAYS UPDATE	Information Item

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INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017

SUBJECT

University of Utah, School of Medicine Annual Report

REFERENCE

June 2008	The Board approved a revised three-year contract between the University of Utah School of Medicine and the State Board of Education.
December 2013	The Board approved a revised three-year contract between the University of Utah School of Medicine and the State Board of Education.
September 2016	The Board approved a revised three-year contract between the University of Utah School of Medicine and the State Board of Education.
December 2016	The Board Received the annual University of Utah School of Medicine Report.

APPLICABLE STATUTE, RULE, OR POLICY

Idaho Code §33-3720

BACKGROUND/DISCUSSION

Since July 1976, the State Board of Education (Board) has had an agreement with the University of Utah School of Medicine (UUSOM) to reserve a specific number of seats for Idaho residents at the in-state tuition and fee rate established by UUSOM for residents of Utah. The Board makes annual fee payments in support of such Idaho resident students enrolled under this agreement. In the 2016 Legislative session, two additional seats per year were approved for this cooperative agreement. The program now provides opportunities for ten Idaho students annually to attend UUSOM through a cooperative agreement. A total of forty Idaho students can be enrolled at any one time in this four-year program.

As part of the Board's contract with UUSOM, the Board receives an annual report which provides program information to include an overview of the four-year curriculum and clerkships.

ATTACHMENTS

Attachment 1 – University of Utah School of Medicine
Annual Report for 2017

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STAFF COMMENTS AND RECOMMENDATIONS

The report also includes a financial overview of support provided for ten students in Academic Year 2016-2017, and an admissions summary consisting of names and home towns of those first year Idaho-sponsored students. The UUSOM contract is up for renewal at the end of the 2018-2019 academic year. Staff anticipates that the renewed contract would come before the Board at their April 2019 meeting.

INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017

BOARD ACTION

This item is for informational purposes only. Any action will be at the Board's discretion.

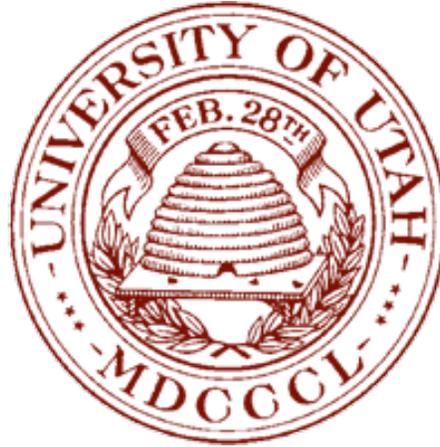


University of Utah School of Medicine

Idaho State Board of Education Annual Report

1/1/2017





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Mission Statement

The University of Utah School of Medicine serves the people of Utah and beyond by continually improving individual and community health and quality of life. This is achieved through excellence in patient care, education, and research. Each is vital to our mission and each makes the others stronger.

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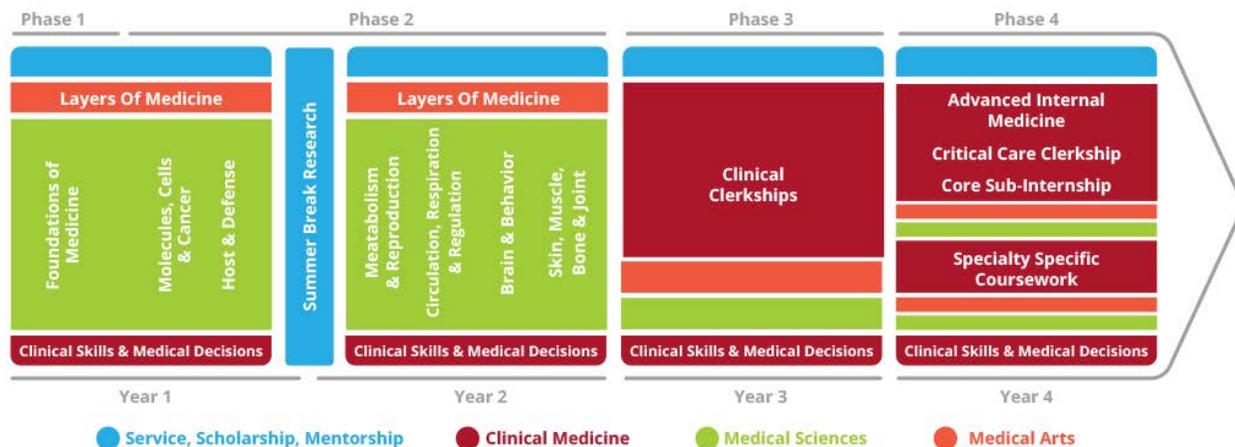
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Overview of the Four Year Curriculum



Year 1

Phase 1: Foundations of Medicine

This 17-week phase includes the medical science, medical arts and clinical skills that students will require before beginning in clinics and Phase 2 units. Each week of Phase 1 will have a predominant theme. Anatomy (embryonic, microscopic and gross, including cadaver dissection), physiology, genetics, pharmacology, data analysis, metabolism and nutrition will be taught in relation to the weekly themes. Students will engage in professional development through self-exploration and self-assessment activities across Phase 1 as they examine the different psychosocial and technical dimensions of patient care.

Clinical Experience: CMC 1

The 2-year Clinical Method Curriculum (CMC) partners groups of students and core clinical faculty for the longitudinal development of clinical skills in a mentored learning community environment. Each student is assigned to a learning community with approximately 10 students and 1-2 core faculty members. Students will work within their learning communities throughout their medical school career to ensure they possess the core foundational clinical method knowledge, skills, attitudes and behaviors necessary to provide optimal patient care in a dynamic healthcare environment. Instructional methods include didactic presentation, small group discussion, simulation, authentic clinical experiences, and mentoring.

Phase 2: (2.1) Molecules, Cells, and Cancer

This 8-week unit, beginning in early January, integrates molecular and cell biology with genetics, hematology, cancer biology and basic oncology. It includes a strong component of translational research as we explore how we know what we know about the molecular basis of cancer and other genetic diseases. Students begin their longitudinal clinical experience at the start of this unit. The clinical skills taught include breast, pelvic and male genital exams.

Students also begin the Subspecialty Clinical Experience, where they spend one afternoon per month in a specialty clinic related to topics being learned in the classroom.

Phase 2: (2.2) Host and Defense

This 9-week unit begins in March and introduces infectious disease, the biology of the immune system, the body's response to pathogens, and antimicrobial therapy. Instruction centers on common clinical presentations, beginning with fever and then moving through major body systems while addressing increasingly complicated diseases, from sore throat to AIDS.

Clinical Experience: CMC 2

CMC II focuses on expanding history-taking skills, advanced physical examination in specific areas, professional communication skills, introduction of lab and imaging selection and interpretation, and beginning skills in diagnostic reasoning. This will be taught through a combination of lecture sessions, small group activities, independent study and Experiential Learning Opportunities (ELO). ELO activities are a component of CMC 2 and provide students with real patient interactions in which they will apply knowledge learned in all components of the medical school curriculum. These experiences will also introduce them to the clinical environment and help them understand how to integrate into the clinical team. Core Faculty and/or practicing clinician attendings will oversee the ELO activities.

Year 2

Phase 2: (2.3) Metabolism and Reproduction

This 9-week unit runs from late July or early August. It begins with the pathophysiology of the gastrointestinal tract and the digestion/absorption of nutrients. The basic metabolism covered in phase 1 is reviewed and built upon as we focus on the liver. Obesity, metabolic syndrome and insulin resistance lead into endocrinology. From the sex hormones, we transition to reproduction. Clinical reasoning skills, with a particular focus on causes and treatment of abdominal pain, will be emphasized throughout the unit.

Phase 2: (2.4) Circulation, Respiration and Regulation

This 11-week unit runs from October to mid-December. This unit is designed to help students develop the clinical medicine skills and medical science knowledge to be able to propose rational differential diagnoses and diagnostic and treatment strategies for clinical problems affecting the circulatory, respiratory, and renal organ systems.

Phase 2: (2.5) Brain and Behavior

This 9-week unit begins early January through February of the second calendar year. The unit integrates basic neuroanatomy and neurophysiology with the clinical disciplines of neurology, psychiatry, pathology and pharmacology. The unit provides the students with the conceptual framework necessary to recognize common neurological and mental health issues.

Phase 2: (2.6) Skin, Muscle, Bone, and Joint

Upon completion of this 6-week unit, students will be able to name, recognize and describe common dermatologic and musculoskeletal diseases, including the basic science foundations of each condition. In addition, they will describe diseases, clinical presentation and pathophysiology and define terms used on physical, microscopic and radiologic examinations. Students will be able to gather essential information from clinic patients presenting with dermatologic and musculoskeletal complaints and produce accurate, clear and organized documentation of patient encounters in the form of SOAP notes and complete H&P's. This unit provides students with the knowledge and skills necessary to reason through case-based vignettes as seen in USMLE in order to prepare them for USMLE Step I licensing exam and Phases III and IV.

Clinical Experience: CMC 3-4

CMC III-IV focuses on advanced history-taking skills, advanced physical examination skills to help elicit abnormal findings, professional communication skills, further development of lab and imaging selection and interpretation, and more advanced skills in diagnostic reasoning. These will be taught through a combination of lecture sessions, small group activities, independent study and Experiential Learning Opportunities (ELO). ELO activities provide students with real patient interactions in which they will apply knowledge learned in other components of the medical school curriculum. These experiences will also introduce students to the clinical environment and help them understand how to integrate into the clinical team. Core faculty and/or practicing clinician attendings will oversee the ELO activities.

Medical Arts and Humanities: Layers of Medicine 1 - 4

The Layers of Medicine course is a longitudinal, 2-year course in the pre-clerkship curriculum. The overarching goals of the Layers of Medicine course are to provide students with the knowledge, skills and attitudes necessary to: Provide compassionate care to a diverse patient population, understand the complexities of a changing health care system and how access to health care impacts patient outcomes, practice medicine informed by ethical principles, analyze the impact of social, economic, gender, and cultural factors on health care outcomes, develop a positive professional attitude, appreciate and manage the influence of personal values and attitudes on relationships with patients, and find and utilize resources and information required for optimal patient care.

Year 3

In the third year, emphasis is on the integration of basic science knowledge with clinical, ethical, diagnostic, and problem solving skills. Clinical clerkships, during which students learn patient management as members of the health care team, include family practice, internal medicine, obstetrics and gynecology, pediatrics, psychiatry, and surgery. Students also take a Topics of Medicine course, which reviews a series of simulated patients with common medical problems seen in ambulatory medicine. The student is also required to complete a four-week clinical neurology clerkship between the end of the sophomore year and the end of the senior year. Each

student must also satisfactorily complete an objective standardized clinical examination (OSCE) administered at the end of the 3rd year prior to being promoted to the 4th year.

Transition to Clerkship

The Transition to Clerkship course is an introduction to the Phase III Core Clinical Clerkship curriculum. It is designed to provide students with the resources and skills necessary to thrive in **the clinical curriculum and to succeed as medical professionals and lifelong learners.**

Family Medicine Clinical Clerkship

Six weeks with a community-based of faculty family medicine preceptor. The majority of the time is spent with the preceptor in the hospital, office, nursing homes, and on house calls. Time is also spent learning about and experiencing other elements of the health care system in the community served by the preceptor.

Internal Medicine Clinical Clerkship

Eight week rotation that consists of inpatient responsibilities, ambulatory clinic, case work and rounds on wards of the University of Utah Medical Center, LDS Hospital, or the VA Medical Center.

Neurology Clinical Clerkship

Four weeks divided into two weeks inpatient and two weeks outpatient experiences. The inpatient rotation at the University of Utah Medical Center, Primary Children's Hospital, or VA Medical Center consists of direct patient care, daily ward rounds, brain cutting sessions, procedures such as lumbar puncture, participation in clinical conferences, and attendance at specialty clinics. The outpatient experience occurs in the multiple sclerosis, muscle, and neurology outpatient clinics.

Obstetrics and Gynecology Clinical Clerkship

Six weeks of inpatient and outpatient experience at the University of Utah Medical Center and LDS Hospital. Time is also spent in lectures, seminars, and review of gynecological pathology.

Pediatrics Clinical Clerkship

Six weeks divided into two three-week blocks. three weeks are spent on the inpatient wards at Primary Children's Hospital (PCH). The other three-week block includes one week on a pediatric subspecialty service and the other two weeks at the General Pediatric Clinic at the university of Utah Medical Center, and the newborn nursery at the University of Utah Medical Center.

Psychiatry Clinical Clerkship

Six weeks emphasizing inpatient care at the University of Utah Medical Center, VA Medical Center, Primary Children's Hospital, and the University of Utah Neuropsychiatric Institute. Students attend civil commitment proceedings, electroconvulsive therapy, outpatient clinics, and consultation/liaison rounds. One day each week is devoted to a core lecture series and case conferences. Each student spends one week on the consultation/liaison service and one half day per week in the office of an outpatient therapist.

Surgery Clinical Clerkship

Eight weeks of ward work, operating room experience, lectures, case presentations, and rounds at the University Medical Center, LDS Hospital and VA Medical Center. Students spend six weeks on general surgery and two weeks in specialty areas.

Year 4

The University of Utah School Of Medicine utilizes a learning community model to deliver medical education and career mentoring necessary to prepare fourth year medical students for their internship (12 months). Students develop advanced skills through sub-internship, critical care, advanced internal medicine and elective courses. They prepare for entry into residency by selecting curriculum specific to their career specialty interests.

Specialty specific mentors are designated for each specialty and are available to help with course scheduling and career mentoring.

All students graduating from the University of Utah School of Medicine must complete a sub-internship rotation, a critical care clerkship, and 4-weeks of advanced internal medicine. Students have ample elective time to explore additional clinical interests, research and seminar based courses. Additionally all students must participate in the Transition to Internship Course (TIC).

The TIC is a 2-week course after the students have matched. The course is intended to be a capstone course for their medical school career. The curriculum emphasizes clinical reasoning skills, psychomotor task training, team communication, and the delivery of curriculum thread content needed for the student to be successful in their matched internship. Hands-on task trainers, high fidelity simulation models, inter-professional education, role playing, small group discussions and formal didactic lectures are used to deliver content.

Idaho Student Affairs Update

Program Leadership



Dr. Benjamin Chan is a Board Certified physician in General Psychiatry and Child & Adolescent Psychiatry. He graduated from the University of Utah School of Medicine in 2004. He completed his residency at George Washington University in Washington DC and Fellowship at University of Maryland in Baltimore, MD. He moved back to Utah in 2010 and joined the faculty in the Department of Psychiatry. He works as an inpatient hospitalist at the University Neuropsychiatric Institute (UNI) treating children and adolescents with a wide variety of acute psychiatric conditions. He was appointed Assistant Dean of Admissions in March of 2012 and Assistant Dean of Idaho Student Affairs in July 2014. In July 2017 he was promoted to Associate Dean of Admissions and Idaho Affairs.



Dr. Bridgette Baker is a Board Certified Family Medicine physician. She earned her M.D. degree from the University of Utah School of Medicine and completed her Family Medicine Residency at the Family Medicine Residency of Idaho in Caldwell. She is currently on staff at Saint Alphonsus, Saint Alphonsus Health Alliance and Saint Alphonsus Medical Group. Additionally, she is the Director of Idaho Student Programs for the University of Utah, since 2015. In this capacity, she helps coordinate the placement of Idaho students from the University of Utah medical school into clinical practices within the state of Idaho. She is a member of the Idaho Medical Association, American Medical Association and Idaho Academy of Family Physicians. Dr. Baker serves of the Selection Committee for the University of Utah School of Medicine as an Idaho representative.

Admissions

The Office of Admissions works closely with the Premedical Advisors at the colleges in Idaho. Additionally, we attend graduate fairs in Boise, Rexburg and Pocatello annually in an effort to provide students with current information and recommendations.

Our goal is to select the most capable students to attend our school and to have a balanced, but heterogeneous group that will excel in both the art and science of medicine. We recognize that a diverse student body promotes an atmosphere of creativity, experimentation and discussion that is conducive to learning. Exposure to a variety of perspectives and experiences prepares students to care for patients in all walks of life and in every segment of society.

Considered individually, age, color, gender, sexual orientation, race, national origin, religion, status as a person with a disability, status as a veteran or disabled veteran are not determinants of diversity and are not identified as unique characteristics during the admissions process.

MCAT scores and grades are carefully scrutinized and are an important part of the application process. All grades received for college credit are included in the AMCAS GPA calculation. If a course is repeated, both grades received for that course are calculated into the GPA. Pass/Fail grades received for college credit are not included in the AMCAS GPA calculation.

As important as grades and test scores are, by themselves they do not predict who will be successful in medical school. The demands of medical education and life as a physician are not for everyone. We consider how the applicant balances outside activities and responsibilities with schoolwork to be an indicator of ability to deal with the rigors of life as a physician. The committee is interested in the applicant's motivation for attending medical school and his/her understanding of the medical profession. Commitment to community service, ethical behavior, compassion, leadership ability and communication skills are important characteristics of physicians. Applications and interviews assist us in evaluating these qualities. We expect applicants to be courteous, respectful and professional at all times.

Academic Standards and Recommended Activities

We consider how applicants balance outside activities and responsibilities with school work to be an indicator of his/her ability to deal with the rigors of life as a physician. The committee is interested in an applicant's motivation for attending medical school. The Office of Admissions works closely with the Premedical Advisors in Idaho to ensure they have the most up to date and accurate information.

Grade Point Average (GPA)

Applicants should strive to have a science, non-science and overall GPA above 3.00. Each applicant is considered individually and their GPA is compared to the average GPA of students who have gone on to attend medical school from the applicant's undergraduate institution. The overall GPA for the current first year class is 3.75.

Medical College Admissions Test MCAT

All applicants are required to take the MCAT within three years of their application. Only the most recent MCAT score is considered. Applicants should strive to have an MCAT score at or above 492 with a score of at least 123 in each section of the MCAT. The average MCAT score for the current first year class is 512.

The minimum acceptable score for each section of the January 2015 MCAT is 7. The average overall score is 30.

If the test is taken after April 1, 2015, only the scores from the latest test is accepted

Community Volunteer Service

Community/Volunteer service is defined as involvement in a service activity without constraint or guarantee of reward or compensation. The medical profession is strongly oriented to service in the community. Applicants should demonstrate a commitment to the community by involving themselves in service and volunteer activities. Work performed in service learning courses and community service performed as part of employment does not satisfy this requirement.

- We recommend that applicants complete at least 36 total hours within the last 4 years. To be a competitive applicant, we recommend that applicants endeavor to complete at least 100 hours within last 4 years.

Leadership

Leadership is defined as a position of responsibility for others, with a purpose to guide or direct others. Dedication, determination, ability to make decisions and a willingness to contribute to the welfare of others are indicators of one's ability to succeed in medicine. Individuals with these characteristics readily accept positions of leadership and are an asset to their community and profession. Leadership capacity can be demonstrated in a variety of ways. Positions in employment, church, the community, and school organizations including coaching, tutoring, and mentoring will satisfy this requirement.

- We recommend that applicants have at least 1 leadership experience lasting 3 months within the last 4 years. Competitive applicants will have 3 different leadership experiences each lasting 3 months within the last 4 years.

Research

Research is defined as involvement in a scholarly or scientific hypothesis investigation that is supervised by an individual with verifiable research credentials. Research may be in any discipline and performed at any site. However, it must involve the testing of a hypothesis.

- We recommend that applicants participate in hypothesis-based research. This may be part of a class where an applicant answered or tested a hypothesis and received a grade. Examples: A writing project, laboratory work, etc.
- Applicants with a stronger research experience will have completed hypothesis-based research outside of the classroom that is supervised by an individual with verifiable research credentials. May include independent research or senior thesis.

Physician Shadowing

Physician shadowing is defined as the observation of a physician as that individual cares for and treats patients and carries out the other responsibilities of a medical practice.

Shadowing must be done with an allopathic (MD) or osteopathic (DO) physician in their practice in the United States. Time spent shadowing medical students, interns, residents, fellows, physician assistants, podiatrists, veterinarians, nurses, EMTs, PhDs etc., will not be considered. It is our recommendation that applicants shadow several physicians who work in various specialties including primary care. Shadowing family members who are physicians is discouraged.

- We recommend that applicants shadow a physician for at least 8 hours. Competitive applicants will have shadowed a variety of physicians for at least 24 hours.

Patient Exposure

Patient exposure is defined as direct interaction with patients and hands-on involvement in the care of conscious people in a health care-related environment, attending to their health maintenance, progression, or end of life needs. It is important that the applicant be comfortable working with and around people who are ill, sick, injured, or diseased.

Direct patient exposure can be gained in a variety of ways e.g. volunteering or working in hospitals, emergency rooms, clinics or nursing care facilities, hospice, or physical rehabilitation centers. Patient contact does not include indirect patient care such as housekeeping (cleaning, operating, or patient rooms) staffing the hospital information desk, or working in a pharmacy.

- We recommend that applicants complete at least 32 hours of direct patient care. Competitive applicants will have completed at least 48 hours.

Note: Physician shadowing and caring for friends and family members cannot be used to meet this requirement.

Admissions Reports

Admissions Summary

Academic Year	Idaho Med Student Applicant Pool	Selected for Interviews	Accepted for Admission	Sponsored Students	Non-Sponsored Students
2016-2017	118	40	20	10	0
2015-2016	125	50	14	10	0
2014-2015	100	45	12	8	0
2013 - 2014	118	52	11	8	0
2012 - 2013	105	50	16	8	0
2011 - 2012	89	40	14	8	1
2010 - 2011	95	49	12	8	0
2009-2010	84	45	14	8	2
2008-009	108	64	12	8	1
2007-2008	116	61	13	8	0
2006-2007	93	43	9	8	1
2005-2006	112	57	13	8	0
2004-2005	86	47	11	8	1
2003-2004	84	33	14	8	4
2002-2003	99	53	17	8	0
2001-2002	88	50	13	8	4
2000-2001	96	50	13	8	1
1999-2000	88	42	9	6	0
1998-1999	87	52	13	6	0

Hometowns



Idaho Sponsored Freshmen, Class of 2021

Last Name	First Name	City at Time of Application	State at Time of Application	Birth City	Birth State/Country
Bishop	Michael	Rigby	ID	Rexburg	ID
Brandenberger	Luke	Sandpoint	ID	Sandpoint	ID
Chamberlain	Michael	Provo	UT	Boise	ID
Erickson	Jake	Rexburg	ID	Rexburg	ID
Gilbertson	Ellen	Colorado Springs	CO	Boise	ID
Gole	Ryan	Coeur D'Alene	ID	Torrance	CA
Henrie	Nicholas	Lewiston	ID	Lewiston	ID
Mallea	Patrick	Boise	ID	Seattle	WA
Ropski	Pamela	Pocatello	ID	Arlington Heights	IL
Winter	Trey	Meridian	ID	Fullerton	CA

Observational Experience

A four to eight week non-credit observational experience for students is offered between their first and second year of medical school. Students can shadow a rural doctor for up to 8 weeks and receive a stipend and travel expenses.

Students who have completed this optional experience in the past have noted the following benefits and recommendations:

“During my time at the clinic, I was able to see a variety of different things including; a circumcision, wound care, physical exams, and medication management. I was able to practice some of my clinical skill and practice presenting to the physicians. I learned a lot and enjoyed my time at the clinic. It was wonderful to return to my hometown and see what practicing medicine in Idaho looks like. I hope to return soon and continue furthering my connections with doctors and patients in that community.” -- S. Hembree, 2017

Each year we meet with medical students and educate them on this option. The School of Medicine assists students in finding a rewarding placement in a specialty they are interested in and providing access to a stipend to offset costs.

Idaho Rural Outreach Program (IROP)

Idaho has a notable demand for health care providers in its rural communities. The Idaho Rural Outreach Program (IROP) IROP encourages medical students to meet with Idaho youth with the intent to inspire an interest in the medical field. The goal is to have a significant impact on the shortage of health care providers in Idaho.

First and second year medical students have a unique perspective on the medical school application process. This includes applying to medical school through AMCAS, completing secondary forms, interviewing and sometimes the need to re-apply. Medical students can discuss life as a student from a perspective that is very different from that of a premedical advisor, medical school staff or faculty member.

Medical students have indicated their experiences with the students and teachers have been very positive. The teachers have expressed their gratitude and noted how beneficial the program has been to the students. They appreciate the opportunity the students have to gain exposure to a career in medicine and expressed how difficult it is to find such opportunities.

Since its creation in 2007, medical students, through IROP have traveled to high schools in various rural areas of Idaho including: Malad, Marsh Valley, Soda Springs, Bear Lake, Burley, Preston, the Boise area, Twin Falls, McCall and the surrounding area, Idaho Falls and Rexburg.

Medical students are required to do a presentation that discusses different career options in healthcare such as medical assistant, pharmacist, dentist, doctor, nurse practitioner, physician assistant, etc. They are also required to provide the students with a hands-on learning experience. One student purchased disposable stethoscopes and taught the children how to use them. Other students have used plastic models and animal hearts, kidneys, livers and spleens as teaching aides.

The following are two students' accounts of their experiences:

“I had a wonderful time visiting one of my past high school teachers and instructing students. I spent the day with students who were eager to learn about eye anatomy. At the end of each class, students wanted to know what medical school was like, how I got there, and what things I did between high school and medical school. Considering Idaho is certainly a state with a profound shortage of healthcare workers, it was rewarding to share my passion in this field with others who may not otherwise have much exposure.” - Wright 2016

“I really enjoyed going back to my high school and talking with the students as part of the IROP program. As part of my presentation, I discussed the many different medical fields and then walked the students through a fake patient case to give them some idea of the type of learning we do in medical school and what it is like to be a doctor, including handing out disposable stethoscopes and letting them practice a basic pulmonary exam

on each other. The students were very engaged in the process and asked a lot of questions, and the teacher asked me if I could come back in the future because she saw that the students were able to visualize these opportunities and relate to them in a more concrete way. I think that this program is a valuable way to help Idaho students learn more about the medical field and all the options available to them.”-- Hunter-2017

Clinical Medical Education in Idaho

During an Idaho medical student’s third year, the Family Medicine Clinical Clerkship is completed in Idaho. The Family Medicine Clinical Clerkship is six weeks with a community-based family medicine preceptor.

Family Practice Clinical Clerkship

Brief Description of Clerkship

During the clerkship, all students develop competencies in patient care, systems-based practice, lifelong-learning, and professionalism. Students assess and manage acute, chronic, and preventive medical issues in the outpatient family medicine setting. Students also engage in reflective and interactive activities throughout the month, designed to develop awareness and hone skills for physician-patient relationships. These relationships are an essential and powerful tool for good care of patients.

The majority of time is spent in direct patient care, most of which occurs in the outpatient family medicine clinic. The patient care is under the direction of a board-certified family physician member of the clerkship faculty team. Settings are diverse and include inner city, rural, urban, and suburban. This range of choices, as well as the opportunity to conduct patient care in the community, where the majority of Americans seek care, makes the Family Medicine Clerkship unique. In addition to clinical work there is time dedicated to reading, completing projects and assignments, and attending educational sessions.

Clerkship Goals

As a result of completing the Family Medicine Clerkship:

1. Students will be able to integrate their clinical reasoning skills with their scientific background through broad-spectrum hands-on patient care in the primary care setting.
2. Students will be able to see patients collaboratively with their preceptor, managing the full spectrum of acute, chronic, and preventive care needs that are addressed in the primary care setting.
3. Students will be able to develop therapeutic relationships with patients, families and communities.
4. Students will be able to understand how the principles of Family Medicine can help create a more efficient and effective health care system.
5. Students will be able to be more prepared to serve their community, by taking an active learning role in patient care, navigation of complex health systems, lifelong learning, and professional commitment.

Timeline

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017**

The clerkship is six weeks in duration. Students will be expected to be active in clinical duties for the majority of the days, however there is built in dedicated study time for the Step 1 board exam and the various assignments. Students will be working in the preceptor model, which means the student will work similar hours to the physician each day.

Preceptors/Site Requirements

The preceptor must be board certified in family medicine, and hold a University of Utah Volunteer Clinical Faculty appointment with the Department of Family and Preventative Medicine.

Formative Clinical Performance Assessment

All Phase III Clerkships employ a common formative feedback form that includes both a Student Self-Assessment and Faculty Evaluation of Student section (*Formative Clerkship Feedback Form*). This self-assessment and feedback is intended to be formative in nature and will not be used in the calculation of Preceptor Evaluation data for final grade determination.

Preceptor Evaluations

All Phase III Clerkships employ a common preceptor evaluation form that instructs evaluators to select performance based behaviors along multiple dimensions that best represent the student's highest sustained performance during the preceptor's period of observation.

Family Medicine Volunteer Clinical Faculty in Idaho

Physician	Location	Phone
Julie Gunther, MD	St Luke's Family Medicine Park Center 701 East Parkcenter Blvd Boise, ID 83706	208-381-6500
Michael Maier, MD	St. Luke's Medical Center 3301 North Sawgrass Way Boise, ID 83704	208-376-9592
Waj E. Nasser, MD	St Luke's Capital City Family Medicine 1520 W State St Boise, ID 83702	208-947-7700
Richard F. Paris, MD	Hailey Medical Clinic 706 South Main Street Hailey, ID 83333	208-788-3434
Barry F. Bennett, MD	South East Family Medicine 2775 Channing Way Idaho Falls, ID 83404	208-524-0133

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017**

David A. Hall, MD	St Luke's Payette Lakes Medical Clinic 211 Forest Street Box 1047 McCall, ID 83638	208-634-6443
Dan Ostermiller, MD	St Luke's Payette Lakes Medical Clinic 211 Forest Street, Box 1047 McCall, ID 83638	208-634-6443
William Crump, MD	St Lukes Family Health 3090 Gentry Way Ste 200 Meridian, ID 83642	208-887-6813
Andrew Holtz, DO	Praxis Medical Group 3080 East Gentry Way Ste 200 Meridian, ID 83642	208-884-3770
Trevor Satterfield, MD	St. Luke's Physician Center 775 Pole Line Ave, Suite 105 Twin Falls, ID 83301	208-814-8000
Joan Bloom, MD	Woodlands Family Medical Group 30544 Highway 200, Suite 101 Ponderay, ID 83852	208-263-6300
Facility	Bingham Memorial Hospital 98 Poplar Street Blackfoot, ID 83221	208-785-4100
Sherwin Dsouza, MD	Diabetes and Internal Medicine Assoc. 2302 East Terry Street Pocatello, ID 83201	208-235-5910
Christopher Goulet, MD	Digestive Health Clinic, LLC 6259 W Emerald Boise, ID 83704	208-489-1900
Scott Taylor, MD	Eastern Idaho Medical Consultants 3200 Channing Way, ST 205 Idaho Falls, ID 83404	208-535-4300
Nicholas Hunt, MD	Idaho Nephrology Associates 5610 W Sage Boise, ID 83706	208-501-8955

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017**

Rex Force, MD	Idaho State University-Family Medicine 921 South 8th Avenue Stop 8410 Pocatello, ID 83209	208-234-4700
Facility	Mountain View Hospital 2325 Coronado Street Idaho Falls, ID 83404	208-529-2371
James Lederer, MD	St. Alphonsus Regional Medical Center 1055 North Curtis Road Boise, ID 83706	208-367-2121

Financial Report 2016-2017

The Idaho State Board of Education subsidizes ten seats at the University of Utah so these students are able to pay in-state tuition. For academic year 2016-17, Idaho students paid \$36,386.00 with student fees of 1,116.00 for a total of \$37,502.00. Idaho students also paid a surcharge of \$1612, which was returned to Idaho (to the Idaho Rural Physician Incentive Program). The State of Idaho paid \$42,300/per student.

A portion of the subsidy that the University of Utah receives from the ISBOE went towards:

Direct student support:

Administrator Travel	\$214.24
Student Rotation Expenses*	
First-Year Job Shadowing Stipend	\$3,004.30
Third/Fourth-Year Rotation Expenses	\$ 6,420.07
Idaho Rural Outreach Program	\$ 561.51
Idaho Medical Association U of U Student Rep Expenses	\$1,059.73
Boise Physician Support Salary	\$7,500
Administrative Support Salary	\$58,144.82
Total	\$76,904.67

The remainder of the funds was used for educational advancement of Idaho Medical Students.

* **Covered expenses for rotations:**

- **First-Year Job Shadowing Stipend:** \$1100/4 week block
- **Mileage:** One round trip between SLC and rotation site (\$0.53/mile) and mileage if the distance between housing and rotation sites is more than 15 miles (\$0.53/mile)
- **Housing:** If renting an apartment or motel room, the reimbursement is \$125 per week. If staying with family or friends, they can give them a gift card, gift basket or take them to dinner. They can spend up to \$75.
- **Preceptor:** \$500/week and a gift card, dinner, or gift basket of up to \$75.00.

School of Medicine Graduate Reports

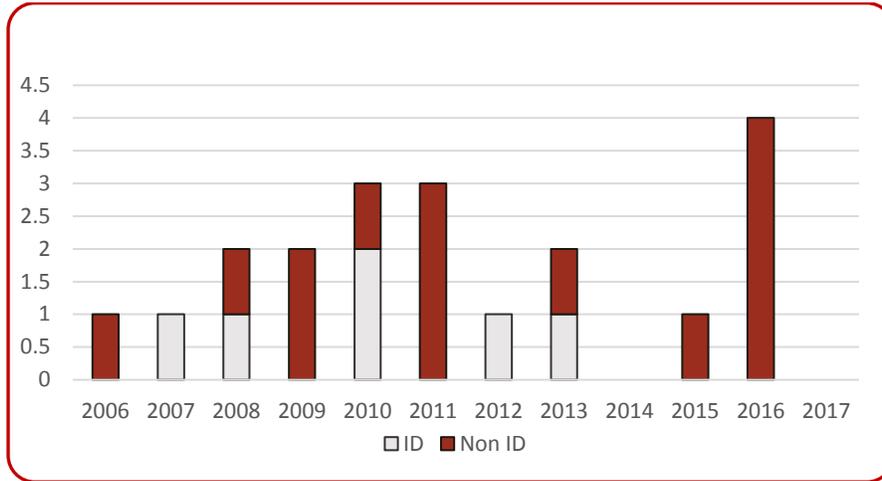
The following is the medical student graduate report of both Idaho sponsored and non-sponsored graduates.

Academic Year	Sponsored	Non-sponsored
2016-2017	10	0
2015-2016	10	0
2014-2015	8	0
2013-2014	8	1
2012 - 2013	8	2
2011 - 2012	8	4
2010 - 2011	9	3
2009-2010	6	4
2008-2009	7	1
2007-2008	8	0
2006-2007	8	1
2005-2006	8	4
2004-2005	8	0
2003-2004	8	4
2002-2003	9	1
2001-2002	5	0
2000-2001	6	0
1999-2000	6	7
1998-1999	6	2
1997-1998	6	1
1996-1997	6	3
1995-1996	6	3

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017**

Since 2006, twenty UUSOM graduates have matched into Idaho GME Programs. The following indicates the number of matched graduates each year, broken into Idaho sponsored and non-sponsored graduates.

UUSOM Graduates who matched to Idaho Residency Programs



As of August 2017, the following estimated numbers of U of U graduates are practicing medicine in Idaho:

UU Medical School Graduates practicing in Idaho	<i>209*</i>
UU Resident Graduates practicing in Idaho	<i>58*</i>
Total	<u><u>267*</u></u>
 Idaho Sponsored Students, 1977-2017:	 <i>277</i>

* These numbers were generated by the University of Utah Alumni Office. They reflect U of U graduates who are currently living in Idaho. It includes only those who graduated after 1971, based on the assumption that those who graduated prior would likely be retired. If a U of U resident was also a U of U graduate, they were only counted once.

Following is the resident graduate report of those who chose to practice medicine in Idaho:

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017**

Academic Year	Number of Graduates	Specialty	
2016-2017	5 : 238	3- Pediatrics 2 Family Medicine	
2015-2016	7 : 301	2 – OB/GYN 1 – Dental 1 – Physical Medicine and Rehabilitation	1 – Pulmonary and Critical Care 1 – Pediatric Emergency Medicine 1 – Geriatrics
2014 - 2015	6 : 289	1 - Family Medicine - OB 1 - Sports Medicine 2 - Internal Medicine	1 - Interventional Cardiology Fellowship 1 – Nephrology Fellowship
2013 - 2014	9 : 291	1 - Internal Med 1 - Dermatology 1 - Pathology 1 - Plastic Surgery 1 - Vascular Surgery	2 - Pain Med 1 - Nephrology 1 - Pediatric Gastroenterology
2012 - 2013	8 : 305	1 – Pediatrics 2 – Cardiology 1 – Pathology 1 – Internal Medicine	1 – Anesthesiology 1 - Hematology/Oncology 1 - PM&R
2011 - 2012	8 : 297	1 – Neurology 1 – Family Medicine 1 - Pediatrics	3 – Internal Medicine 1 – Emergency Medicine 1 - Dermatology
2010 – 2011	9 : 292	4 – Family Medicine 1 – Radiation Oncology 1 – Internal Medicine	1 – General Surgery 1 – Emergency Medicine 1 - Peds-Anesthesiology
2009 – 2010	7 : 266	1 – Medicine – Psychiatry 3 – Family Medicine 3 – Internal Medicine	1 – Pediatrics 1 – Emergency Medicine

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017**

Academic Year	Number of Graduates	Specialty
2008 – 2009	7 : 287	1 – Anesthesiology 3 – Internal Medicine 1 – Family Medicine 1 – Pediatrics 1 – General Surgery
2007 – 2008	7 : 265	4 – Family Medicine 1 – Internal Medicine 2 - Anesthesiology
2006 - 2007	4 : 228	1 – Internal Medicine 2 – Pediatrics 1 – Pediatric Hemy/Onc
2005 - 2006	8 : 214	2 – Sports Medicine 1 – Dental 1 – Pulmonary 1 – Pediatric Psychiatry 2 – Pediatrics 1 – Pathology

INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017

SUBJECT

Experimental Program to Stimulate Competitive Research (EPSCoR) Annual Report

REFERENCE

August 2013	EPSCoR provided their annual report to the Board
April 2014	EPSCoR provided their annual report to the Board
April 2015	EPSCoR provided their annual report to the Board
August 2016	EPSCoR provided their annual report to the Board

APPLICABLE STATUTE, RULE, OR POLICY

Idaho State Board of Education Governing Policies & Procedures, Section III.W. Higher Education Research

BACKGROUND/DISCUSSION

The Experimental Program to Stimulate Competitive Research (EPSCoR) is a federal-state partnership designed to enhance the science and engineering research, education, and technology capabilities of states that traditionally have received smaller amounts of federal research and development funds. Through EPSCoR, participating states are building a high-quality academic research base that is serving as a backbone of a scientific and technological enterprise.

Idaho EPSCoR is led by a state committee composed of 16 members appointed by the Board, with diverse professional backgrounds from both the public and private sectors and from all regions in the state. The Idaho EPSCoR committee oversees the implementation of the EPSCoR program and ensures program goals and objectives are met. The Idaho EPSCoR office and the Idaho EPSCoR Project Director are located at the University of Idaho. Partner institutions are Boise State University and Idaho State University.

The purpose of EPSCoR awards is to provide support for lasting improvements in a state's academic research infrastructure and its research and education capacity in areas that support state and university Science and Technology Strategic Plans. Idaho EPSCoR activities include involvement in K-12 teacher preparation and research initiatives and projects ranging from undergraduate research through major state and regional research projects.

Idaho has three active National Science Foundation (NSF) EPSCoR Research Infrastructure Improvement (RII) awards:

- Track-1 RII; 2013-2018 - \$20 million, "Managing Idaho's Landscapes for Ecosystem Services (MILES)"

INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
OCTOBER 19, 2017

- Track-2 RII Focused EPSCoR Collaborations; 2017-2021 - \$6 million, “Using Biophysical Protein Models to Map Genetic Variation to Phenotypes”
- Track-3 RII Building Diverse Communities; 2014-2019 - \$750,000 (up to five years), “Indigenous Program for STEM Research”, and “Regional Native Network of Graduate Education: A National Research and Educational Model”

Consistent with Board Policy III.W.2. d., EPSCoR has prepared an annual report regarding current EPSCoR activities that details all projects by federal agency source, including reports of project progress from associated external Project Advisory Board (PAB).

ATTACHMENTS

Attachment 1 – Annual Report Presentation

Page 3

STAFF COMMENTS AND RECOMMENDATIONS

Idaho EPSCoR was awarded a new Track-1 grant NSF-EPSCoR award in 2013 entitled, “Managing Idaho’s Landscapes for Ecosystem Services”, for \$20M. This grant was a 5-year grant and is scheduled to be completed this fiscal year. NSF-EPSCoR grants require a state matching component, these funds are paid out of a portion of the funds allocated for use by the Board’s Higher Education Research Council (HERC). The state match for the current award is \$800,000 for fiscal year 2018.

BOARD ACTION

This item is for informational purposes only. Any action will be at the Board’s discretion.



Idaho NSF EPSCoR Research Infrastructure Improvement (RII): *Annual Report - 2017*

Laird Noh, Idaho EPSCoR Committee Chairman
Janet Nelson, Interim Project Director
Rick Schumaker, Assistant Project Director

Idaho State Board of Education
Lewiston, Idaho
October 19, 2017





2017 Annual Report

www.idahoepscor.org

- ▶ Idaho EPSCoR
- ▶ Idaho in National Context
- ▶ Active EPSCoR RII Awards
- ▶ MILES Accomplishments
- ▶ RII Track-1 Proposal “GEM3”
- ▶ Concluding Remarks

The screenshot shows the Idaho EPSCoR website homepage. At the top is a navigation bar with links for Home, About, Research, Education and Outreach, and Resources. Below the navigation is a large banner for the 'IDAHO NSF/EPSCoR ANNUAL MEETING POCATELLO' with the text 'Registration Now Open!' and dates 'October 12-13, 2017'. To the right of the banner is an 'Announcements' section with three items: 'BSU awarded \$1.7M to study climate change effects on birds', 'NSF/EPSCoR Annual Meeting, Oct 12-13', and 'ISU's Sarah Godsey Receives Prestigious NSF Award'. Below the banner is a 'Welcome to Idaho EPSCoR' section with a paragraph about the organization's objective. Underneath are three featured articles: 'Idaho PTV: Portneuf Vision', 'Current Idaho EPSCoR Research' (with sub-sections for MILES and WC-WAVE), and 'Boise State's HES Initiative'. Each article includes a small image, a brief description, and a 'Watch video' or 'Read more' button.



Idaho EPSCoR Project Director



Dr. Peter Goodwin, named
President of University of
Maryland Center for
Environmental Science



Dr. Janet Nelson, Interim
Project Director

**ESTABLISHED PROGRAM TO
STIMULATE COMPETITIVE
RESEARCH (EPSCoR)**





Idaho EPSCoR Committee



Laird Noh, Chairman
President of Noh Sheep Company; Idaho State Senator (retired)



David Barneyby
Vice-President of Nevada Power and Sierra Pacific Power Companies (retired)



Kelly Beierschmitt
Deputy Laboratory Director, Idaho National Laboratory



Maxine Bell
Idaho State Representative



Matthew J. Borud
Chief Business Development Officer, Idaho Department of Commerce



Gynii Gilliam
President of Jobs Plus Inc.



Doyle Jacklin
Partner, Riverbend Commerce Park



Mark Nye
Idaho State Senator



Skip Oppenheimer
Chairman/CEO of Oppenheimer Companies, Inc.



Leo Ray
President of Fish Breeders of Idaho, Inc.



Mark Rudin
Vice-President for Research, Boise State University



Jean'ne Shreeve
Professor of Chemistry, University of Idaho



Dennis Stevens
Chief of Research and Development, Infectious Disease Section, Veterans Affairs Medical Center



David Tuthill Jr.
Founder of Idaho Water Engineering, LLC.



Cornelis Van der Schyf
Vice-President of Research, Idaho State University



(placeholder)
University of Idaho



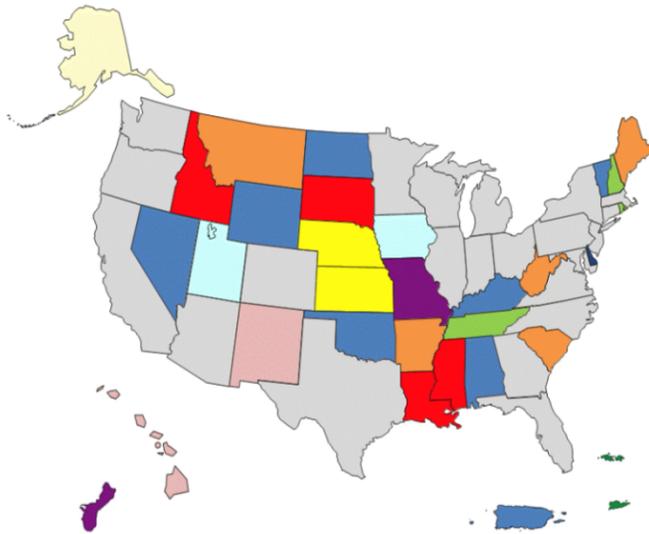
IDAHO
EPSCoR



Idaho's Research Competitiveness

0.29% of NSF's
Total Research funding
awarded to Idaho
(FY14-16), **up from**
0.26% six years ago

Total NSF funding to Idaho
(FY16) = **\$23.0M** up
56% from 2008



Nationally, Idaho ranks **12th** in
the **U.S.** and **3rd** among all
current **EPSCoR** jurisdictions for
its 16% growth in Higher
Education Research and
Development Expenditures from
2010-15, reaching \$146.7M in
2015.

Ksiazkiewicz, R. 2016. "Useful Stats: 50
State Table Reveals University R&D Change
Over Five Years." SSTI.org



Active NSF EPSCoR RII Projects

- ▶ Track-1: Academic Research Infrastructure
 - *Managing Idaho's Landscapes for Ecosystem Services (MILES); (2013-2018) \$20M plus required 20% match*
- ▶ Track-2: Focused EPSCoR Collaborations
 - ▶ *Using Biophysical Protein Models to Map Genetic Variation to Phenotypes; (2017-2021) \$6M. ID-VT-RI. 1 of 8 awards nationally*
- ▶ Track-3: Building Diverse Communities
 - *Indigenous Program for STEM Research and a Regional Native Network of Graduate Education: A National Research and Educational Model; (2014-2019) \$750K*

Indigenous STEM Research and Graduate Education program



MILES About - Research - Education - Products - Resources - Q

Idaho NSF/EPSCoR Annual Meeting!
October 12-13, 2017
Pocatello, Idaho
[Register Now!](#)

ISU's Donna Lybecker Keynote Speaker at London Conference
Dr. Donna Lybecker, Chair of the Political Science Department at Idaho State University, was invited to be the Keynote Speaker at the International Conference on Social Science & Interdisciplinary Studies in London, Aug 7-8, 2017. She presented her MILES work in a talk entitled: "Sustainable communities: Communicating with the public on science-based social issues and policies".

ISU MILES and MURI researcher works with beetles to improve ecosystems
Jeremy Starkey, an undergraduate researcher in the Idaho State University Department of Biology Sciences, has been researching how the Carrion Beetle has a connection to the development of more nutrient-rich soil.
[Read more](#)

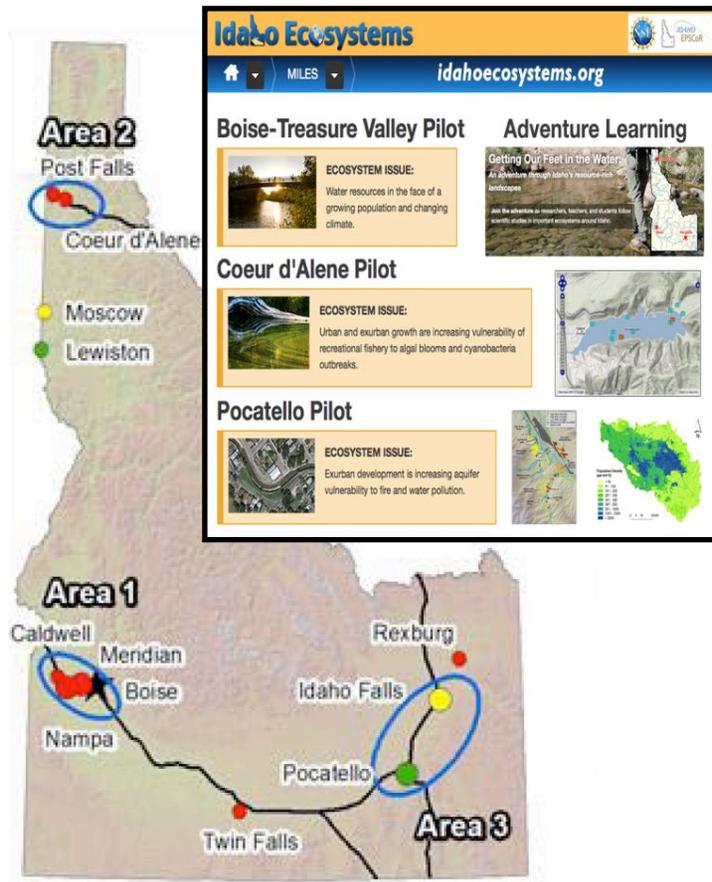
MILES
Managing Idaho's Landscapes for Ecosystem Services

MILES is a National Science Foundation (NSF) Research Infrastructure Improvement award managed by Idaho EPSCoR. The \$20M award for years 2013-2018 is shared by Boise State University, Idaho State University and University of Idaho. The primary goals of the MILES project are to advance social-ecological-systems (SES) science within Idaho, while building capacity, sustainable infrastructure, trans-disciplinary research collaborations, educating a dynamic workforce, and developing partnerships with stakeholders. Learn more about MILES or see an introduction to Ecosystem Services.



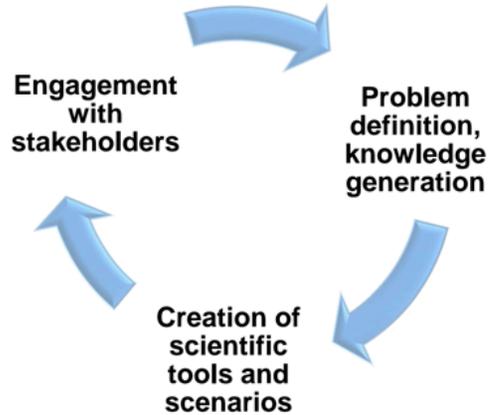
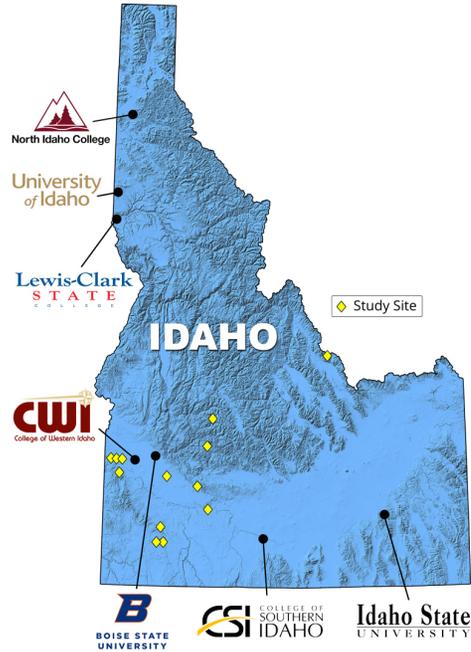
NSF EPSCoR RII - MILES

Research Infrastructure Improvement



- ▶ Place-based studies provide integrative research opportunities
- ▶ Statewide collaboration
- ▶ Stakeholders as partners
- ▶ 11 New faculty positions
- ▶ Integrated research and education

NSF EPSCoR MILES Research





Examples of NSF EPSCoR MILES Outputs

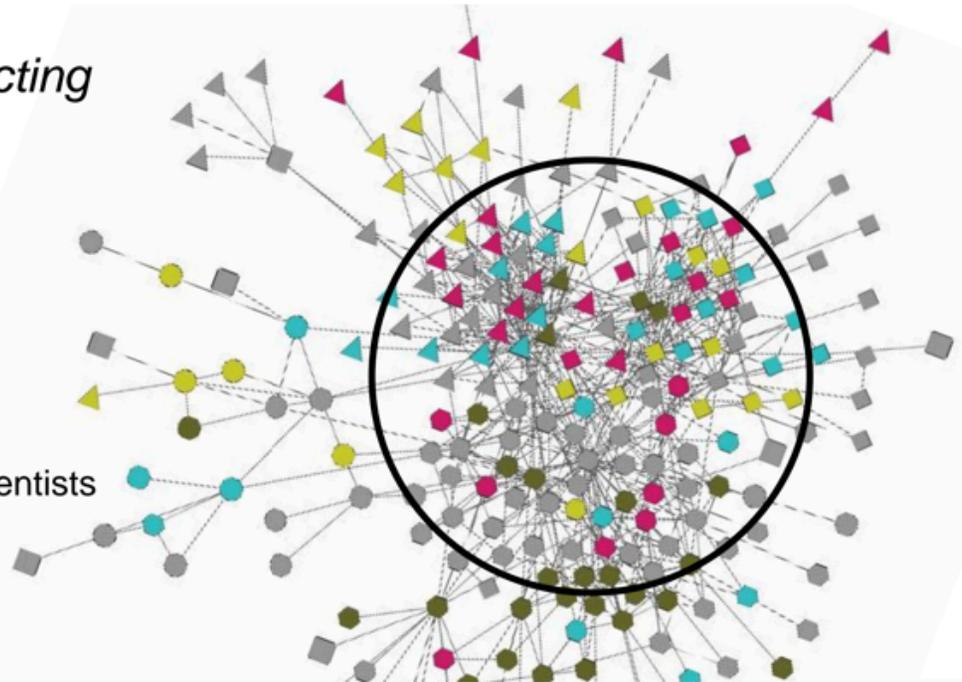
- ▶ **87** journal publications with partial or primary EPSCoR support to-date
- ▶ **300+** participants statewide in Yr-4 (50% female, 23% underrepresented)
- ▶ Research opportunities for **110+** undergraduates in Yr-4 (56% female, 46.5% underrepresented)
- ▶ Submitted **209** proposals since 2013 requesting **\$147M**
- ▶ Received 71 grants totaling **\$30.09M** to-date
- ▶ Direct interaction with **593** stakeholders and community members in Yr-4
- ▶ **33** graduate and **63** undergraduate degrees granted to MILES students to-date



EPSCoR Track-1 Research Impacts

*We are now conducting
Social-Ecological
System Science*

-  Social Scientists
-  Biological Scientists
-  Geoscientists
-  Natural Resource Scientists
-  Not Classified





Workforce Development and Diversity

- ▶ MILES - Adventure Learning
 - ▶ Over 150 K-12 Teachers trained (2014-2017)
 - ▶ Also reached 596 students directly
- ▶ Engaging Idaho's full intellectual capacity
 - ▶ Undergraduate Research - 37% underrepresented minority (URM) students
 - ▶ Active Idaho Diversity Network
- ▶ Year 4 - Highlighted NSF Award
 - ▶ NSF-CAREER: Active Learning Across Interfaces: Controls on Flow Intermittency and Water Age in Temporary Streams. Sarah Godsey. 2017. \$583,729

2017 Workshops

POCATELLO

June 5-9 [flyer](#)

contact: [Rosemary Smith](#)
208-282-4918

CDA

June 19-23 [flyer](#)

contact: [Marie Pengilly](#)

BOISE

July 10-14 [flyer](#)

contact: [Cindy Busche](#)
208-608-7244



[Blog](#) [Lesson Plans](#) [Resources](#) [Assignments](#) [Galleries & Video](#) [Participants](#)

Welcome, Idaho Adventurers!





EPSCoR Track-1 Sustainability

MILES is helping to establish and contribute to the success of Idaho research centers



HES
BSU



MILES External Engagement



The screenshot shows the PBS website interface for IDAHO Science Journal. The main content area features a video player for "Marsh Creek Mud Mystery" (S2 Ep5 | 6m 27s) with a large "Add to Favorites" button. A sidebar on the right contains three video thumbnails: "Portneuf Vision", "Hayden Lake Experiment", and "Testing Lake Coeur d' Alene". The website header includes the PBS logo, KSPS station information, and navigation links for Home, Shows, Video, TV Schedules, Shop, and Donate.

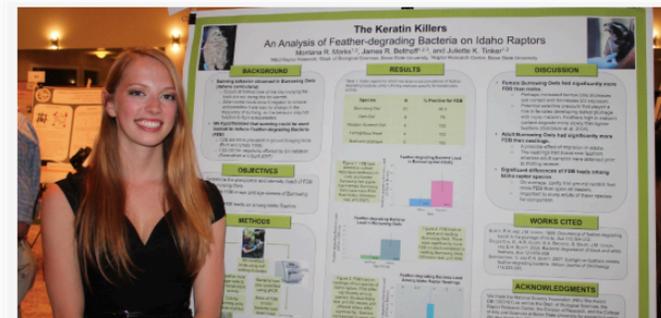
Every day, Idaho scientists conduct research to describe, define, investigate and understand the world in which we live. Idaho Science Journal takes a look at the work of some of the state's most interesting researchers.



EPSCoR - Significant Events / Activities

- ▶ First National Science Foundation Site Visit for RII (MILES) – Moscow, September 2016
- ▶ Idaho NSF EPSCoR Annual Meeting – Coeur d’Alene, October 2016
- ▶ Idaho Conference on Undergraduate Research (ICUR) – Boise, July 2016
- ▶ Track-2 RII WC-WAVE Award with ID-NV-NM completed – July 2016
- ▶ Submission of \$20M Track-1 Research Infrastructure Improvement (RII) proposal, “GEM3” – August 2017
- ▶ Idaho EPSCoR Annual Meeting; Pocatello, October 2017
- ▶ National NSF EPSCoR Conference – Missoula, MT, November 2017

IDAHO CONFERENCE ON UNDERGRADUATE RESEARCH



Student Presents on Analysis of Bacteria on Idaho Raptors

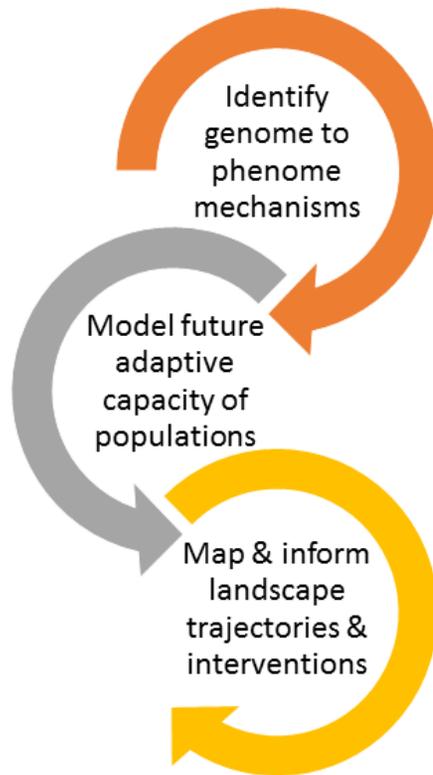




Idaho's NSF EPSCoR Track-1 Proposal

Idaho Track-1 RII: "GEM3"
*Genes to Environment:
Modeling, Mechanisms,
and Mapping* - Submitted
August 2017

This statewide research theme will advance fundamental knowledge to predict how organisms adapt to external stressors and a changing environment.



NSF Ideas for Future Investment

RESEARCH IDEAS

- Harnessing Data for 21st Century Science and Engineering
- Shaping the New Human – Technology Frontier
- Understanding the Rules of Life – Predicting Phenotype
- The Quantum Leap – Leading the Next Quantum Revolution
- Navigating the New Arctic
- Windows on the Universe – The Era of Multi-messenger Astrophysics

PROCESS IDEAS

- Growing Convergent Research at NSF
- Mid-scale Research Infrastructure
- NSF 2050



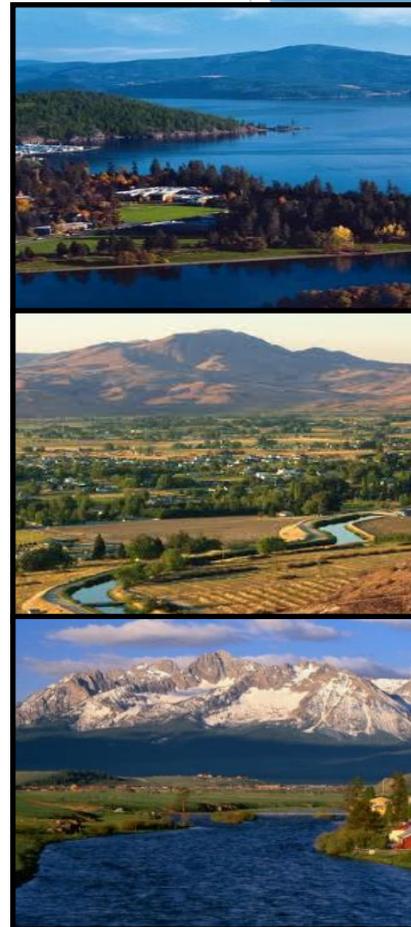
Idaho NSF EPSCoR



IDAHO
EPSCoR

**ESTABLISHED PROGRAM TO
STIMULATE COMPETITIVE
RESEARCH (EPSCoR)**

<https://www.nsf.gov/od/oia/programs/epscor/>



INSTRUCTION, RESEARCH AND STUDENT AFFAIRS
OCTOBER 19, 2017

BOISE STATE UNIVERSITY

SUBJECT

Approval of a new, online program that awards a Master of Science in Genetic Counseling

APPLICABLE STATUTE, RULE, OR POLICY

Idaho State Board of Education Governing Policies & Procedures, Section III.G. and Section V.R.3.a.x.

BACKGROUND/DISCUSSION

Boise State University (BSU) proposes to create a program that awards a Master of Science in Genetic Counseling. The program will be wholly online and will operate under the fee guidelines of Board Policy V.R. as it pertains to wholly online programs.

Genetic counseling is defined as "the process of helping people understand and adapt to the medical, psychological and familial implications of genetic contributions to disease." Boise State University's program will help to meet the workforce need for more genetic counselors, will help alleviate the lack of seats in genetic counseling programs, and will do so with a highly accessible online program:

- The National Society of Genetic Counselors reports that since 2006, the profession of genetic counseling has seen growth of 85%, and nationally there are four jobs for every graduate, with anticipated future demands growing at an increasing rate. Locally, the number of unique job openings for genetic counselors has doubled since 2012. In 2012, there were three unique, unfilled positions and in 2017 there are six unique positions. However, these newly created jobs have remained unfilled for longer periods of time. Of the six positions in 2017, four currently remain open: one since May 2015, one since December 2016, and two since June 2017. The average time to fill the position is 12 months with a range of 8-27 months. The entry level salary for a Genetic Counselor is \$65,000.
- A master's degree in genetic counseling from an accredited program is required to become a genetic counselor in Idaho. However, potential students interested in becoming a genetic counselor face strong competition for extremely limited space in existing programs. The Association of American Genetic Counseling Directors reports that 330 applicants out of 1,300 are accepted to genetic counseling programs each year. The only program serving students in the Northwest is a face-to-face program at the University of Utah; that program annually accepts 7 students out of a total of 109-128 applicants.
- Because the proposed program will be wholly online, it will be available to students in rural areas of Idaho and surrounding states, and will attract a

INSTRUCTION, RESEARCH AND STUDENT AFFAIRS
OCTOBER 19, 2017

nationwide audience sufficient to make the program financially sustainable.

The program will focus on emerging trends in the field of genetic counseling, which include advancements in genetics/genomic technologies, service to underrepresented and rural communities, the need for business skills, and inter-professional development. Students will participate in collaborations involving other members of the healthcare team through experiential components of the curriculum that focus on inter-professional education.

The proposed program is one of several being created via the eCampus Initiative at BSU. BSU's online program development process uses a facilitated 10-step program design process to assist program faculty members in the creation of an intentional, cohesive course progression with tightly aligned course and program outcomes, and uses a multi-expert development team, which includes an instructional designer, multimedia specialist, graphic designer, and web designer.

The proposed program is currently seeking to obtain Accredited New Program status with the Accreditation Council of Genetic Counselors (ACGC). At this juncture, a letter of intent has been submitted to and accepted by the ACGC.

IMPACT

The program will not require the use of any new state appropriated funds. The program will operate under Board Policy V.R., 3.a.x. as it pertains to wholly online program fees. Students will be charged \$982 per credit hour. For the 56 credits required for completion of the proposed program, the total cost will be \$54,992. A review of 10 institutions offering similar in-person degrees found that the lowest total degree cost was \$26,796 and the highest was \$65,200 with the average at \$46,244. However, the costs at the lower end of the spectrum were typically for state institutions charging in-state resident rates; BSU's program will charge the same rate for in-state and out-of-state students. Another consideration is that Idaho students would not need to move and otherwise incur that expense.

In the same review among ten institutions, the program will require more hours for degree completion than all but one (tied). However, this is necessitated due to the curriculum having more business and professional development coursework. It is expected that graduates will acquire skills necessary for clinical work and industry.

The program is projected to admit an annual cohort of 15-17 students, which is small enough to provide the high-quality, highly-interactive classes needed for a high quality program and it is large enough to make the program fiscally sustainable. It is hoped the program will receive provisional accreditation from the Accreditation Council for Genetic Counseling by August 2018 at the latest, so as to participate in the student application and admission process in 2019.

INSTRUCTION, RESEARCH AND STUDENT AFFAIRS
OCTOBER 19, 2017

Sunset clause: Because the program will be utilizing the online fee model, it is best to put the minimum enrollment in terms of credits and student FTEs, which are the items that translate to revenue. Based on estimated expenses for instruction and for support personnel expenses, the estimated minimum number of credits and student FTEs to achieve break-even status by the fourth year is 629 annual student credit hours. This equates to approximately 23 student FTE. If enrollments do not meet expectations, expenses will be adjusted to reflect actual activity. The program's financial sustainability will be evaluated at least annually. However, if program revenues do not cover expenses by the third year, possible discontinuation of the program will be addressed.

ATTACHMENTS

Attachment 1 – Program Proposal – M.S. in Genetic Counseling Page 5

STAFF COMMENTS AND RECOMMENDATIONS

Boise State University (BSU) proposes to create a fully online degree program leading to a Master of Science in Genetic Counseling. Similar programs offered by other institutions are delivered in-person. Those institutions include California State University, Stanislaus; Stanford University; University of California, Irvine; University of Colorado, Denver; and University of Utah. BSU would be the first to offer a Genetic Counseling program online.

BSU's proposed MS in Genetic Counseling is consistent with their service Region Program Responsibilities and their Five-Year Plan for Delivery of Academic Programs in Region III. Consistent with Board Policy III.Z, no institution has the statewide program responsibility for counseling programs. BSU indicates that the proposed program is intended to meet the growing need for genetic counselors in local health systems such as St. Luke's and Saint Alphonsus.

Financial Considerations:

BSU has proposed a \$982 per credit hour (approximate total program cost of \$54,992) under the Board policy on pricing of fully-online programs (Section V.R.3.a.x.). The institution acknowledges that this rate is higher than other programs, but they expect it to be competitive in that it will obviate certain expenses such as those associated with traveling to campus. BSU projects that the program will be self-sustaining in year four. BAHF reviewed the financial component of the proposed Genetic Counseling program at its meeting on October 6, 2017.

Staff assessment of the fiscal aspect of the proposal is that the suggested price—more typical of self-support programs—would negatively impact the access and affordability of the program for many traditional and on-line students who might wish to pursue this program, and would appear to be an exception to the general guidance emanating from the Governor's Higher Education Task Force that on-

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line program delivery modalities should provide affordable access for place-, time-, and/or life situation bound students to needed education and training programs.

The proposal went through the program review process and was recommended for approval by the Council on Academic Affairs and Programs (CAAP) on September 21, 2017 and was presented to the Instruction, Research, and Student Affairs (IRSA) committee on October 5, 2017 and to the Business Affairs and Human Resources Committee (BAHR) on October 6, 2017.

Though high cost and fiscal considerations were taken under advisement, staff recommends approval of the proposed M.S. in Genetic Counseling based on program description, purpose, and regional and state need for mental and behavioral health professionals.

BOARD ACTION

I move to approve the request by Boise State University to create a new online program that will award a Master of Science in Genetic Counseling in substantial conformance to the program proposal submitted as Attachment 1.

Moved by _____ Seconded by _____ Carried Yes _____ No _____

I move to approve the request by Boise State University to designate an online program fee for the Master of Science in Genetic Counseling in the amount of \$982 per credit in conformance with the program budget submitted to the Board in Attachment 1.

Moved by _____ Seconded by _____ Carried Yes _____ No _____

Idaho State Board of Education

Proposal for Undergraduate/Graduate Degree Program

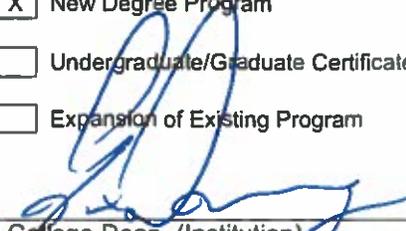
Date of Proposal Submission:	August 18, 2017
Institution Submitting Proposal:	Boise State University
Name of College, School, or Division:	College of Health Sciences
Name of Department(s) or Area(s):	School of Allied Health Sciences

Program Identification for Proposed New or Modified Program:

Program Title:	Master of Science in Genetic Counseling		
Degree:		Degree Designation	
		Undergraduate	X Graduate
Indicate if Online Program:	X	Yes	No
CIP code (consult IR /Registrar):	51.1509 Genetic Counselor/Counseling		
Proposed Starting Date:	Fall 2019		
Geographical Delivery:		Location(s)	
		Region(s)	
Indicate (X) if the program is/has:		Self-Support	
		Professional Fee	
Indicate (X) if the program is:	x	Regional Responsibility	Statewide Responsibility

Indicate whether this request is either of the following:

- | | |
|---|---|
| <input checked="" type="checkbox"/> New Degree Program | <input type="checkbox"/> Consolidation of Existing Program |
| <input type="checkbox"/> Undergraduate/Graduate Certificates (30 credits or more) | <input type="checkbox"/> New Off-Campus Instructional Program |
| <input type="checkbox"/> Expansion of Existing Program | <input type="checkbox"/> Other (i.e., Contract Program/Collaborative) |

 8/14/17

 College Dean (Institution) Date

 Vice President for Research (Institution; as applicable) Date

7 - V - 4 8/18/17

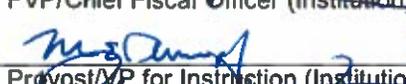
 Graduate Dean or other official (Institution; as applicable) Date

 Academic Affairs Program Manager, OSBE Date

 8/17/17

 FVP/Chief Fiscal Officer (Institution) Date

 Chief Academic Officer, OSBE Date

 8/17/17

 Provost/VP for Instruction (Institution) Date

 SBOE/Executive Director Approval Date

 8/18/17

 President Date

Before completing this form, refer to Board Policy Section III.G., Postsecondary Program Approval and Discontinuance. This proposal form must be completed for the creation of each new program. All questions must be answered.

Rationale for Creation or Modification of the Program

- 1. Describe the request and give an overview of the changes that will result.** Will this program be related or tied to other programs on campus? Identify any existing program that this program will replace.

Boise State University proposes the creation of a fully online program that will award a Master of Science in Genetic Counseling degree. The proposed program will be housed in the School of Allied Health Sciences in the College of Health Sciences. The program will operate under the guidelines of the SBOE Policy V.R. as it pertains to wholly online programs.

The National Society of Genetic Counselors (NSGC) defines genetic counseling as "the process of helping people understand and adapt to the medical, psychological and familial implications of genetic contributions to disease." This process integrates:

- Interpretation of family and medical histories to assess the chance of disease occurrence or recurrence;
- Education about inheritance, testing, management, prevention, resources, and research, and;
- Counseling to promote informed choices and adaptation to the risk or condition.

Currently, potential students interested in pursuing an M.S. in Genetic Counseling face strong competition for extremely limited space in existing programs. The Association of American Genetic Counseling Directors (AGCPD) reports that 330 applicants out of 1,300 are accepted to genetic counseling programs each year. The high demand and insufficient program capacity, coupled with the lack of programs in the Northwest has prompted Boise State University to pursue the creation of a new, online M.S. in Genetic Counseling. This proposed program will serve qualified students who may otherwise have been unable to pursue this opportunity due to geographic location, or other constraints.

A master's degree in genetic counseling from an accredited program is required to become a genetic counselor. Therefore, the program will be grounded in the rigorous accreditation standards of the Accreditation Council for Genetic Counseling (ACGC), which strives to provide students with the training and skills needed to become qualified, competent, and compassionate professionals. The program will focus on emerging trends in the field of genetic counseling, which include advancements in genetics/genomic technologies, service to underrepresented and rural communities, the need for business skills, and inter-professional development. Students will participate in collaborations involving other members of the healthcare team through experiential components of the curriculum that focus on interprofessional education.

- 2. Need for the Program.** Describe the student, regional, and statewide needs that will be addressed by this proposal and address the ways in which the proposed program will meet those needs.
 - a. Workforce need:** Provide verification of state workforce needs that will be met by this program. Include State and National Department of Labor research on employment potential. Using the chart below, indicate the total projected annual job openings (including growth and replacement demands in your regional area, the state, and nation. Job openings should represent positions which require graduation from a program such as the

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one proposed. Data should be derived from a source that can be validated and must be no more than two years old.

The US Department of Labor (USDOL) long-term employment projection data regarding Genetic Counseling is not reliable. USDOL projections are primarily based on historical trends. Because of unanticipated technological advances, there has been a dramatic increase in the availability of information regarding the genetic basis of disease. However, the rate of these discoveries has far outpaced the ability of the USDOL projections to capture the need for Genetic Counselors who are able to translate that information to patients.

Instead, we rely on an Eduventures EMSI report commissioned by BSU, which indicated there were 29 unique genetic counseling job postings during the two years from April 2015-April 2017 in Idaho, or roughly 15 per year. That number is, however, an underestimate of the need for Genetic Counselors in Idaho. Because there are so few genetic counselors available to take jobs, in some cases hospitals do not bother to try to hire.

In addition, the National Society of Genetic Counselors (NSGC) reported that since 2006, the profession of genetic counseling has seen an 85% growth with a workforce supply that has not kept up with demand. They also report that nationally there are four jobs for every graduate, with anticipated future demands growing at an increasing rate.

Locally, according to Human Resources departments at the two largest hospital systems in Idaho, St. Luke's and St. Alphonsus', the number of unique job openings has doubled since 2012. However, these newly created jobs have remained unfilled for longer periods of time. Specifically, since September 2016, six new openings have been posted and as of August 2017, four of those remain open. The two hospitals are the primary employer of genetic counselors in the state, and genetic counselors presently on staff reported an average of 12 months (range 8-24 months) to fill these hard-to-recruit positions with qualified candidates.

As more genetic counselors become available as graduates from our program, it will become feasible for more hospitals to try to hire. Given that approximately half of Idaho's population is in Boise State's service region, we calculate that there are about 8 openings per year in the local area.

List the job titles for which this degree is relevant:

1. Genetic Counselor, SOC 29-9092

	State DOL data	Federal DOL data	Other data source: (describe)
Local (Service Area)	N/A	N/A	8
State	N/A	N/A	15
Nation	N/A	N/A	N/A

Provide (as appropriate) additional narrative as to the workforce needs that will be met by the proposed program.

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	2014 National Employment Matrix Title and Code	Employment (1000's)		Job Openings Due to Growth and Replacement Needs, 2014-24 (1000's; over 10 yr)
		2014	2024	
29-9092	Genetic Counselor	2.4	3.1	1.2

- b. Student need.** What is the most likely source of students who will be expected to enroll (full-time, part-time, outreach, etc.). Document student demand by providing information you have about student interest in the proposed program from inside and outside the institution. If a survey of s was used, please attach a copy of the survey instrument with a summary of results as **Appendix A**.

The proposed program is expected to enroll full-time students with an interest in medical sciences, psychology and/or healthcare. Graduates of the proposed program will be among those who will advance and shape the profession of genetic counseling into the next era of genetics and genomics in mainstream healthcare. Because the proposed program will be wholly online, it will be available to students in the rural areas of Idaho and surrounding states, and will attract a nationwide audience sufficient to make the program financially sustainable.

As previously mentioned, according to the Association of Genetic Counseling Program Directors (AGCPD) data, nationally, there were 1,300 applications to genetic counseling programs in 2016, with only 330 available spots in the current programs.

The only program serving students in the Northwest is a face-to-face program at the University of Utah. Annually, the University of Utah genetic counseling program accepts 7 students out of a total of 109-128 applicants (see table). The increased growth of applicants demonstrates a growing interest in the profession of genetic counseling, and a significant number of potentially highly qualified candidates who have previously been unable to enter the profession and who may consider a degree program in Idaho.

University of Utah GC Program Application Data: Last Two Academic Years

Year	Total # of Applicants	Total # of Applicants Interviewed	Total # of Applicants Accepted
2016	109	36 (~33%)	7 (~6%)
2017	128	43 (~33%)	7 (~5%)

- c. Economic Need:** Describe how the proposed program will act to stimulate the state economy by advancing the field, providing research results, etc.

N/A

- d. Societal Need:** Describe additional societal benefits and cultural benefits of the program.

The local health systems, St. Luke's and St. Alphonsus, have experienced a significant shortage of candidates to fill genetic counseling positions in recent years. Currently, there are five open positions in the Treasure Valley. The lack of qualified genetic counselors has interfered with one hospital system's ability to acquire a coveted accreditation by the Commission on Cancer which establishes the standards of high quality patient centered care that meets the demands of payers and insurers.

<https://www.facs.org/quality-programs/cancer/coc/apply/benefitscoc> (Standard 2.3 is Genetic Counseling and Risk Assessment with specific educational requirements).

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As there currently exists a substantial need to fill genetic counseling positions in the State of Idaho, as well as the Pacific Northwest, any delay in the creation of the program will exacerbate the barriers to care patients already face in our region. Without access to sufficient numbers of qualified genetics specialists in the region, patients experience long wait lists and will, in some cases, forgo consultations and testing altogether. The patients needing these services often have dire health consequences and require expensive treatment which would be best managed with early identification and diagnosis of genetic conditions. With more genetics professionals, Idaho residents will have greater options for preventative care reducing the burden on the health care system and leading to better health outcomes. Genetics is a dynamic, fast moving field, and any delay in creation of a training program will put health care in this region further behind.

The online format of the proposed program will attract students who cannot relocate to attend a face-to-face program because of personal and/or geographical constraints. Two benefits that will result are as follows: (i) The genetic counseling profession has long struggled to attract individuals of diverse backgrounds, and the online format will be more accessible to a broad range of students. (ii) The online format is likely to lead to a greater distribution of genetic counselors in rural areas. Graduates will be prepared to help people understand and adapt to medical, psychological, and familial implications of genetic contributions to disease in local communities in Idaho and the Northwest.

e. If Associate’s degree, transferability:

N/A

3. Similar Programs. Identify similar programs offered within Idaho and in the region by other in-state or bordering state colleges/universities.

Similar Programs offered by Idaho public institutions (list the proposed program as well)		
Institution Name	Degree name and Level	Program Name and brief description if warranted
Boise State University	M.S. in Genetic Counseling	ONLINE: Interactive faculty involved - An innovative degree program committed to excellence through contemporary models of education with an emphasis on expanding student access to the profession of genetic counseling. Diverse fieldwork provides students with experiences designed to create advocates, translators, and experts in the field of genetics and genomics. Professional development will focus on interprofessional education, cultural competency, and the aspects of business in healthcare giving students the skills to be leaders and entrepreneurs. Students will have capstone projects, with a thesis option, to develop research skills that will give them an ability to contribute to the genetic counseling community.

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Similar Programs offered by other Idaho institutions and by institutions in nearby states		
Institution Name	Degree name and Level	Program Name and brief description if warranted
California State University, Stanislaus	M.S. in Genetic Counseling	IN-PERSON - Fully accredited by the Accreditation Council for Genetic Counseling (ACGC). Balances rigorous academic coursework, direct clinical experiences and independent research. Designed to reflect that genetic counseling involves a complex process of psychosocial and scientific communication, in which knowledge of clinical genetics must be coupled with an understanding of relevant psychological, social and cultural issues. Students are required to complete a research study of a selected genetic counseling issue or topic that is suitable for publication. All students must pass an oral defense and submit a final approved written research paper prior to graduation.
Stanford University	M.S. in Human Genetics and Genetic Counseling	IN-PERSON - Fully accredited by the Accreditation Council for Genetic Counseling (ACGC). Faculty utilize state-of-the-art genomics resources to train students to work with patients and clients in a wide range of settings and from multicultural backgrounds. The curriculum provides a balance of cutting-edge genomics technology with strong psychosocial counseling skills and research training. All aspects of the training are tailored so that content is clinically applicable from the start.
University of California, Irvine	Masters in Genetic Counseling	IN-PERSON - Fully accredited by the American Board of Genetic Counseling (ABGC) Program integrates active clinical genetics unit, where faculty genetic counselors and geneticists provide service to a wide variety of patients and families.
University of Colorado, Denver	M.S. in Genetic Counseling	IN-PERSON - Fully accredited by the Accreditation Council for Genetic Counseling (ACGC). Curriculum combines in-depth didactic coursework in the scientific, clinical, psychosocial and professional practice aspects of genetic counseling with extensive, hands-on clinical experience in pediatric, prenatal, adult and specialty genetics clinics. All students participate in clinical case conferences, genetics seminars, journal club, clinical research, and educational outreach activities.
University of Utah	Masters in Genetic Counseling	IN-PERSON - Full accreditation by the American Board of Genetic Counseling (ABGC). Integrates didactic coursework, clinical rotations, supplementary community activities, and an independent research project to best prepare students for a successful career in genetic counseling.

- 4. Justification for Duplication with another institution listed above.** (if applicable). If the proposed program is similar to another program offered by an Idaho public institution, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. Describe why it is not feasible for existing programs at other institutions to fulfill the need for the proposed program.

N/A

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5. Describe how this request supports the institution’s vision and/or strategic plan.

The following bolded passages show the relevance of the program to Boise State University’s Mission:

Boise State University is a public, metropolitan, **research university offering an array of undergraduate and graduate degrees and experiences that foster student success, lifelong learning, community engagement, innovation and creativity. Research and creative activity advance new knowledge and benefit students, the community, the state and the nation.** As an integral part of its metropolitan environment the university is engaged in **professional** and continuing education programming, policy issues, and **promoting the region’s economic vitality and cultural enrichment.**

Goals of Institution Strategic Plan	Proposed Program Plans to Achieve the Goal
Goal 1: Create a signature, high-quality educational experience for all students	Boise State’s online program development process allows us to create an innovative, cohesive, consistent, and compassionate educational experience.
Goal 2: Facilitate the timely attainment of educational goals of our diverse student population	The online, interactive delivery of the degree program is to encourage and support diverse populations to pursue a career in genetic counseling and create lifelong learners who are motivated critical thinkers and dedicated healthcare professionals prepared to advance and shape the profession into the next era of genetics and genomics in mainstream healthcare.
Goal 4: Align university program and activities with community needs	The proposed program will produce compassionate genetic counselors who can fill a need in rural and underrepresented areas.

6. Assurance of Quality. Describe how the institution will ensure the quality of the program. Describe the institutional process of program review. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation.

The following measures will ensure the high quality of the new program:

Regional Institutional Accreditation: Boise State University is regionally accredited by the Northwest Commission on Colleges and Universities (NWCCU). Regional accreditation of the university has been continuous since initial accreditation was conferred in 1941. Boise State University is currently accredited at all degree levels (A, B, M, D).

Program Review: Boise State University has instituted a new program review procedure. At the inception of new programs, the programs will submit to the Office of the Provost a three-year assessment plan to be scheduled into the Periodic Review/Assessment Reporting Cycle. The plan includes program learning outcomes; and an implementation plan with a timeline identifying when and what will be assessed, how the programs will gather assessment data, and how the program will use that information to make improvements. Then, every three years, the programs will provide Program Assessment Reports (PAR), which will be reviewed by a small team of faculty and staff using a PAR Rubric, which includes feedback, next steps, and a follow-up report with a summary of actions.

Specialized Accreditation: The proposed MS in Genetic Counseling program is currently seeking to

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obtain Accredited New Program status with the Accreditation Council of Genetic Counselors (ACGC). ACGC advances quality in genetic counseling education by developing standards, and by evaluating and accrediting programs. As the healthcare profession evolves, recognition of a standard of practice also evolves. In order to legally assure that the genetic counseling profession continues to be recognized within the healthcare field, ACGC ensures a measure of competence that defines a competent professional, an objective measure of practitioners (i.e., the certifying examination), and minimum training standards (i.e., accreditation of programs). Establishing these components allows the profession to define and protect the scope of practice through state licensure, federal, and payer recognition. Establishing all of these components also protects the public, consumers, patients and healthcare facilities from unscrupulous practitioners.

Graduate Policy and Procedure: The proposed program will adhere to all applicable policies and procedures of the Graduate College as developed and approved by the graduate faculty of the university through its representatives on the Graduate Council.

Program Development Support: The online Master of Science in Genetic Counseling is one of several being created via the eCampus Initiative at Boise State University. Boise State's online program development process uses a facilitated 10-step program design process to assist program faculty members in the creation of an intentional, cohesive course progression with tightly aligned course and program outcomes. A multi-expert development team, which includes an instructional designer, multimedia specialist, graphic designer, and web designer, works collaboratively with the faculty member. One master version of each course is developed for consistent look and feel of courses across the program; the master course utilizes professionally-created common template aligned with nationally used Quality Matters course design standards.

Student Authentication: Because the proposed program will be offered entirely online, it is important to include mechanisms by which we authenticate the identity of students enrolled in the program. We will use the following mechanisms:

- During the admissions process, the university will confirm required official transcripts and other documentation required for admission into the program.
- During student orientation programs, academic integrity will be addressed.
- At the beginning of each course, the instructor will communicate expectations regarding academic integrity to students verbally and in the syllabus.
- Associated with access to and use of our Learning Management System, a secure log-in environment will be provided and students will be required to use strong student passwords and to change them every 90 days.
- During the design of the curriculum and assessment of each course, instructors will apply training and principles from the Quality Instruction Program offered by Boise State's eCampus Center - which includes Quality Matters best practices and WCET's Best Practice Strategies to Promote Academic Integrity in Online Education (Version 2.0, June 2009).
- Faculty members will utilize Blackboard's Safe Assignment plagiarism detection program when appropriate. Faculty members are expected to be informed of and aware of the importance of academic integrity and student identity authentication, and to report and act upon suspected violations.

7. **In accordance with Board Policy III.G., an external peer review is required for any new doctoral program.** Attach the peer review report as **Appendix B**.

N/A

8. **Teacher Education/Certification Programs** All Educator Preparation programs that lead to

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certification require review and recommendation from the Professional Standards Commission (PSC) and approval from the Board.

Will this program lead to certification?
Yes _____ No X _____

If yes, on what date was the Program Approval for Certification Request submitted to the Professional Standards Commission?

9. Five-Year Plan: Is the proposed program on your institution's approved 5-year plan? Indicate below.

Yes X No _____

Proposed programs submitted to OSBE that are not on the five-year plan must respond to the following questions and meet at least one criterion listed below.

a. Describe why the proposed program is not on the institution's five year plan.

When did consideration of and planning for the new program begin?

b. Describe the immediacy of need for the program. What would be lost were the institution to delay the proposal for implementation of the new program until it fits within the five-year planning cycle? What would be gained by an early consideration?

Criteria. As appropriate, discuss the following:

- i. How important is the program in meeting your institution's regional or statewide program responsibilities? Describe whether the proposed program is in response to a specific industry need or workforce opportunity.
- ii. Explain if the proposed program is reliant on external funding (grants, donations) with a deadline for acceptance of funding.
- iii. Is there a contractual obligation or partnership opportunity to justify the program?
- iv. Is the program request or program change in response to accreditation requirements or recommendations?
- v. Is the program request or program change in response to recent changes to teacher certification/endorsement requirements?

Curriculum, Intended Learning Outcomes, and Assessment Plan

10. Curriculum for the proposed program and its delivery.

a. Summary of requirements. Provide a summary of program requirements using the following table.

MS in Genetic Counseling	
Credit hours in required courses offered by the department (s) offering the program.	56
Credit hours in required courses offered by other departments:	
Credit hours in institutional general education curriculum	
Credit hours in free electives	
Total credit hours required for degree program:	56

b. Additional requirements. Describe additional requirements such as comprehensive examination, senior thesis or other capstone experience, practicum, or internship, some of which may carry credit hours included in the list above.

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Professional certification as a genetic counselor is acquired via board examination, which is administered by the American Board of Genetic Counseling (ABGC) and indicates that individual practitioners have met the standards necessary to provide competent genetic counseling services. Certification or eligibility is necessary for most employers and required by all licensing states. Students of the M.S. in Genetic Counseling program will participate in mock exams and preparatory work to ensure success with the board examination and with employment after graduation.

Students will participate in clinical and non-clinical fieldwork as required by ACGC standards; that fieldwork will begin in the third semester (summer) of the program and end in the last semester. Fieldwork will be coordinated via a Core Clinical Network, which will be developed by BSU using pre-established affiliation agreements with clinical sites. The Network will provide students with the opportunity to choose from sites in Idaho, Montana, Alaska, Nevada, Wyoming, Eastern Washington, and Oregon. Students will indicate regional preference upon admission and will be matched to preferred state(s) for clinical rotations, thereby giving students nearly 12 months' time to prepare for their travel requirements. Rotation sites must be diverse enough to provide students with ample opportunity to meet the case requirements needed to become ABGC board eligible upon graduation and must have a wide enough geographic distribution to enhance accessibility to program students. Boise State University's Genetic Counseling Program is also based, in part, on the mission to promote the growth of genetic counseling in rural and underserved populations. Therefore, clinical rotation sites included in the Core Clinical Network were also selected based on an ability to meet this mission. The Program Director and Clinical Rotation Coordinator will select potential rotation sites and supervisors for addition to the Network in accordance with the ACGC Standards for Program Accreditation, the ACGC Practice-Based Competencies, and a student's rotation site of preference as well as the thorough vetting process established by the program leadership.

Students will also have capstone projects, with a thesis option, to develop research skills that will give them an ability to contribute meaningful research to the genetic counseling community.

GENCOUN 5XX Capstone Project I (1-0-1) (F) Culminating immersive project or practice experience with a population of interest that includes student identification of project topic and literature review process. Student will identify a project and provide background research. Students will learn project management and presentation skills.

GENCOUN 5XX Capstone Project II (1-0-1) (F) Continuation of Capstone Project I, student will refine and finalize project leading to written proposal, approval, and execution of project launch. Students will learn project management, written and presentation skills with review by Capstone Project Coordinator.

GENCOUN 5XX Capstone Project III (1-0-1) (S) Continuation of Capstone Project II, student will continue with project, collection of data, and begin to assess for outcomes. Students will apply coordination skills with involved professionals and peers.

GENCOUN 5XX Capstone Project IV (1-0-1) (S) Continuation of Capstone Project III, student will complete project with final evaluation of the scholarly project by written report of completed work and oral presentation with review by program director, involved professionals, and peers.

11. Program Intended Learning Outcomes and Connection to Curriculum.

- a. **Intended Learning Outcomes.** List the Intended Learning Outcomes for the proposed program, using learner-centered statements that indicate what will students know, be able to do, and value or appreciate as a result of completing the program.

Field Expertise

1. Utilize knowledge of core genetic/genomic concepts and genetic counseling methodologies to manage and promote client well-being.
2. Display professional oral, written, audio/visual, and telecommunication skills appropriate to the field of genetic counseling.

Interpersonal, Psychosocial and Counseling Skills

3. Employ a range of effective interpersonal and psychosocial counseling skills via varied service delivery models to promote informed decision making that is client-centered, non-coercive and responsive to stated and emerging concerns.
4. Apply genetic counseling skills in a culturally responsive and respectful manner to clients from diverse backgrounds.

Professional Practice

5. Integrate knowledge from other professions, research processes, and evidenced-based practice to think critically about the field of genetic counseling.
6. Demonstrate active commitment to interprofessional development through collaborative relationship building, mentoring, training, knowledge transfer and advocacy within the genetics community.
7. Exhibit management and leadership skills which are relevant to the genetic counseling profession and promote bio-ethical business practice.

12. Assessment plans

- a. Assessment Process.** Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program.

Program leadership will define, in accordance with the ACGC Standards C3.1-C3.3.4, the process by which it will perform regular and ongoing student evaluation and identify areas for program improvement. The assessment process will include student notification of the criteria for successful completion of the curriculum and for graduation, evaluation methods that will be employed during training, and the program's improvement policy. The constellation of student evaluations employed will encompass objective measures for assessment of knowledge acquisition, problem-solving skills, clinical competencies, and professional behaviors in the field of genetic counseling. Evaluation methods will be employed frequently enough to provide students, faculty, and staff with timely indications of progress and academic standing and to serve as reliable indicators of the effectiveness of program design and instruction. The Program Director(s) will regularly communicate with each student about his/her overall progress, individual educational needs, and goals (minimum of twice per year). In addition, there will be an evaluation metric that measures and documents how students are meeting clinical training objectives and requirements. Each student will receive specific and timely feedback from his/her supervisors on individual clinical cases with the opportunity to review each evaluation with their clinical supervisors and/or Program Leadership.

The program leadership team including Medical Director, Program Director, Assistant Program Director, Director of School of Allied Health Sciences, Genetic Counseling Program Advisory Board, and the University of Utah Genetic Counseling Training program (which has agreed to serve as a mentor for Boise State's program) will provide oversight of the assessment process. Student evaluations, guest lecture evaluations, and fieldwork supervisory evaluations will be incorporated in program assessment. The program will submit to the Office of the Provost a three-year assessment plan and be scheduled into the Periodic Review/Assessment Reporting Cycle to provide a Program Assessment Report.

- b. Closing the loop.** How will you ensure that the assessment findings will be used to improve the program?

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Program leadership will be responsible for assessment and implementation of improvements. The Advisory Board and the Office of the Provost provide oversight.

- c. Measures used.** What direct and indirect measures will be used to assess student learning?

Student success with the learning outcomes will be evaluated using mock ABGC board exams as well as fieldwork supervisory evaluations of student clinical education during student matriculation through the program. Similarly, additional feedback on learning outcomes will be provided by monitoring student pass/fail rates on actual ABGC board exams. Students will be required to present completed capstone projects which will allow for assessment of collective application skills of learning outcomes.

- d. Timing and frequency.** When will assessment activities occur and at what frequency?

Program assessment will occur on a semiannual basis through reports to the advisory board. Reports to the Office of the Provost occur on a three-year cycle.

Enrollments and Graduates

- 13. Existing similar programs at Idaho Public Institutions.** Using the chart below, provide enrollments and numbers of graduates for similar existing programs at your institution and other Idaho public institutions.

There are no similar programs offered at other Idaho public institutions.

Existing Similar Programs: Historical enrollments and graduate numbers								
Institution and Program Name	Fall Headcount Enrollment in Program				Number of Graduates From Program (Summer, Fall, Spring)			
	FY__	FY__	FY__	FY__ (most recent)	FY__	FY__	FY__	FY__ (most recent)
BSU								
ISU								
UI								
LCSC								

- 14. Projections for proposed program:** Using the chart below, provide projected enrollments and number of graduates for the proposed program:

Proposed Program: Projected Enrollments and Graduates First Five Years											
Program Name: Master of Science in Genetic Counseling											
Projected Fall Term Headcount Enrollment in Program						Projected Annual Number of Graduates From Program					
FY20	FY21	FY22	FY23	FY24	FY25	FY20	FY21	FY22	FY23	FY24	FY25
10	22	26	30	33	33	0	9	12	13	15	15

15. Describe the methodology for determining enrollment and graduation projections.

Refer to information provided in Question #2 "Need" above. What is the capacity for the program? Describe your recruitment efforts? How did you determine the projected numbers above?

Program enrollments are based on having a typical cohort of 15 to 17 students entering the program per year. Such a cohort size is small enough to provide the high-quality, highly-interactive classes needed for a high quality program and it is large enough to make the program fiscally sustainable.

Because of the high demand for seats in genetic counseling program, we believe that we will have no problem in recruiting cohorts of 15 to 17 students.

To recruit students, the program will utilize the National Matching Services Genetic Counseling Admissions program. The Match Services program places applicants into positions in masters-level genetic counseling programs that are accredited by ACGC. Similar matching programs have been used throughout North America in the annual recruitment of trainees in medicine, psychology, dentistry, optometry, pharmacy and other professions.

16. Minimum Enrollments and Graduates. Have you determined minimums that the program will need to meet in order to be continued? What are those minimums, what is the logical basis for those minimums, what is the time frame, and what is the action that would result?

Because the program will be utilizing the online fee model, it is best to put the minimum enrollment in terms of credits and student FTEs, which are what translates to revenue. Based on estimated expenses for instruction and for support personnel expenses, the estimated minimum number of credits and student FTEs to achieve breakeven by Year four is 629 annual student credit hours, which equates to approximately 23 student FTE.

If enrollments do not meet expectations, expenses will adjust to reflect actual activity. The program's financial sustainability will be evaluated at least annually. However, by year 3 if program revenues do not cover expenses, possible discontinuation of the program will be addressed.

Resources Required for Implementation – fiscal impact and budget

17. Physical Resources.

- a. Existing resources.** Describe equipment, space, laboratory instruments, computer(s), or other physical equipment presently available to support the successful implementation of the program.

The available space and equipment is currently acceptable to operate a successful program.

- b. Impact of new program.** What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated?

No impact.

- c. Needed resources.** List equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. Enter the costs of those physical resources into the budget sheet.

None.

18. Library resources

- a. Existing resources and impact of new program.** Evaluate library resources, including personnel and space. Are they adequate for the operation of the present program? Will there be an impact on existing programs of increased library usage caused by the proposed program? For off-campus programs, clearly indicate how the library resources are to be provided.

Current library resources are adequate for operations. Additional journal access may be considered as needed.

- b. Needed resources.** What new library resources will be required to ensure successful implementation of the program? Enter the costs of those library resources into the budget sheet.

None.

19. Personnel resources

- a. Needed resources.** Give an overview of the personnel resources that will be needed to implement the program. How many additional sections of existing courses will be needed? Referring to the list of new courses to be created, what instructional capacity will be needed to offer the necessary number of sections?

The following personnel will be hired:

- Program Director: 1.0 FTE: 0.7 FTE to administration and 0.3 FTE to instruction
- Associate Program Director: 1.0 FTE: 0.65 FTE to administration and 0.35 FTE to instruction
- Administrative Assistant: 1.0 FTE

The table below depicts the schedule of course offerings for the first three years of the program. Based on anticipated enrollment and section capacity, each course will require only one section. If enrollments or capacity change, more sections may be added within the limits of the budget. We project by year 3 of the program, the program will require 1.92 FTEs of faculty.

- b. Existing resources.** Describe the existing instructional, support, and administrative resources that can be brought to bear to support the successful implementation of the program.

During the implementation phase and beyond, the program will be academically supported by the College of Health Sciences and the eCampus Center in the Division of Extended Studies.

- a. Impact on existing programs.** What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained?

Impact to existing programs will be very low. One program course is scheduled to be taught by existing Boise State faculty. The 22 courses will be instructed by the program director and associate director, who have part of their workload devoted to instruction faculty who will be hired specifically for this program, as describe above in 19.a.

- b. Needed resources.** List the new personnel that must be hired to support the proposed program. Enter the costs into the budget sheet.

See 19a

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
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Schedule of Classes Offered for Online MS in Genetic Counseling: First three years.										
		Cr.	Fall 2019	Spring 2020	Sum 2020	Fall 2020	Spring 2021	Sum 2021	Fall 2021	Spring 2022
GENCOUN 5XX	Wellness Seminar	1	X			X			X	
GENCOUN 5XX	Principles of Human Genetics	3	X			X			X	
GENCOUN 5XX	Professional Issues I	1	X			X			X	
GENCOUN 5XX	Developmental Anatomy & Embryology	3	X			X			X	
GENCOUN 5XX	Healthcare Principles & Public Health	3	X			X			X	
GENCOUN 5XX	Principles & Practices of Genetic Counseling I	3		X			X			X
GENCOUN 5XX	Clinical Genetics I	2		X			X			X
GENCOUN 5XX	Fieldwork I (Semester)	1		X			X			X
GENCOUN 5XX	Principles & Practices of Genetic Counseling II	3		X			X			X
GENCOUN 5XX	Clinical Genetics II	3		X			X			X
GENCOUN 5XX	Professional Issues II	1			X			X		
GENCOUN 5XX	Fieldwork II (Semester)	5			X	X		X	X	
GENCOUN 5XX	Research Methods & Statistics	3			X			X		
GENCOUN 5XX	Professional Issues III	2				X			X	
GENCOUN 5XX	Capstone Project I	1				X			X	
GENCOUN 5XX	Fieldwork III (semester)	5				X	X		X	X
GENCOUN 5XX	Principles & Practices of Genetic Counseling III	3				X			X	
GENCOUN 5XX	Capstone Project II	1				X			X	
GENCOUN 5XX	Principles and Practices of Genetic Counseling IV	3					X			X
GENCOUN 5XX	Capstone Project III	1					X			X
GENCOUN 5XX	Fieldwork IV (semester)	5					X	X		X
GENCOUN 5XX	Professional Issues IV	2					X			X
GENCOUN 5XX	Capstone Project IV	1					X			X
	Total	56								
	Credits offered per semester		11	12	9	23	24	9	23	24
	Required Faculty FTE (24 credits=1FTE)		0.46	0.50	0.38	0.96	1.00	0.38	0.96	1.00

20. Revenue Sources

- a) **Reallocation of funds:** If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs?

N/A

- b) **New appropriation.** If an above Maintenance of Current Operations (MCO) appropriation is required to fund the program, indicate when the institution plans to include the program in the legislative budget request.

No new appropriation will be required.

- c) **Non-ongoing sources:**
- i. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends?

None

- ii. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds?

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
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N/A

d) Student Fees:

- i. If the proposed program is intended to levy any institutional local fees, explain how doing so meets the requirements of Board Policy V.R., 3.b.

The student fee will be implemented in accordance with the Online Program Fee as defined in the Board Policy V.R., 3.a.x. We will charge \$982 per credit hour. For the 56 credits required for completion of the proposed program, the total cost will be \$54,992. A review of 10 institutions offering similar in-person degrees found that the lowest total degree cost was \$26,796 and the highest was \$65,200 with the average at \$46,244. However, it is important to note that the costs at the lower end of the spectrum were typically for state institutions charging in-state resident rates; Boise State's program will charge the same rate for in-state and out-of-state students. In addition, we believe that the convenience of an online program enables us to charge a somewhat higher fee.

- ii. Provide estimated cost to students and total revenue for self-support programs and for professional fees and other fees anticipated to be requested under Board Policy V.R., if applicable.

As noted above, for the 56 credits required for completion of the proposed program, students will pay an online program fee of \$982 per credit, resulting in a total cost of those 56 credits of \$54,992. We project that by the fourth year of the program, it will generate 801 SCH, which will yield a total revenue of \$786,582.

21. Using the budget template provided by the Office of the State Board of Education, provide the following information:

- Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first **four** fiscal years of the program.
- Include reallocation of existing personnel and resources and anticipated or requested new resources.
- Second and third year estimates should be in constant dollars.
- Amounts should reconcile subsequent pages where budget explanations are provided.
- If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies).
- Provide an explanation of the fiscal impact of any proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

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I. PLANNED STUDENT ENROLLMENT											
		FY 2020		FY 2021		FY 2022		FY 2023		FY 2024	
		FTE	Headcount								
A. New enrollments		8.1	10	21.5	22	25.6	26	29.1	29	32.4	32
B. Shifting enrollments											
Total Enrollment		8.1	10	21.5	22	25.6	26	29.1	29	32.4	32
Student Credit Hours Generated		226		601		716		814		906	
II. REVENUE											
		FY 2020		FY 2021		FY 2022		FY 2023		FY 2024	
		On-going	One-time								
1. New Appropriated Funding Request											
2. Institution Funds											
3. Federal											
4. New Tuition Revenues from Increased Enrollments											
5. Student Fees			\$221,961		\$590,009		\$702,642		\$799,377		\$889,814
6. Other (i.e., Gifts)											
Total Revenue		\$0	\$221,961	\$0	\$590,009	\$0	\$702,642	\$0	\$799,377	\$0	\$889,814
Budget Notes:											
I.A, B.	Calculation of FTE and headcount as follows:										
	>1 student FTE = 28 credits: Each full time student will take 56 credits over two years										
	>Headcount determined as the distinct number of students in the program that year.										
II.5.	>Student Fee revenue calculated as Student Credit Hours * \$982 per credit.										

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
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	FY 2020		FY 2021		FY 2022		FY 2023		FY 2024	
	On-going	One-time	On-going	One-time	On-going	One-time	On-going	One-time	On-going	One-time
B. Operating Expenditures										
1. Travel		\$2,000		\$2,000		\$2,000		\$2,000		\$2,000
2. Professional Services										
3. Other Services		\$3,740		\$3,740		\$3,740		\$3,740		\$3,740
4. Communications		\$2,852		\$3,154		\$3,228		\$3,599		\$3,682
5. Materials and Supplies		\$2,220		\$2,220		\$2,220		\$2,220		\$2,220
6. Rentals										
7. Materials & Goods for Manufacture & Resale										
8. Miscellaneous - Computer Hardware/Software		\$0		\$0		\$9,000		\$0		\$0
Total Operating Expenditures	\$0	\$10,812	\$0	\$11,114	\$0	\$20,188	\$0	\$11,559	\$0	\$11,642
Budget Notes (continued):										
III.B.1	Travel to Boise State University main campus and to professional development conferences									
III.B.3	Other Services: Memberships and professional conference registration									
III.B.5	Materials & Supplies: Office supplies and materials									
III.B.8	Miscellaneous: Computer hardware/software									
	FY 2020		FY 2021		FY 2022		FY 2023		FY 2024	
	On-going	One-time	On-going	One-time	On-going	One-time	On-going	One-time	On-going	One-time
C. Capital Outlay										
1. Library Resources										
2. Equipment										
Total Capital Outlay	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	FY 2020		FY 2021		FY 2022		FY 2023		FY 2024	
	On-going	One-time	On-going	One-time	On-going	One-time	On-going	One-time	On-going	One-time
D. Capital Facilities Construction or Major Renovation										

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E. Other Costs										
1. Boise State Central		\$22,196		\$59,001		\$70,264		\$79,938		\$88,981
2. Boise State eCampus Center		\$35,514		\$94,401		\$112,423		\$127,900		\$142,370
3. Boise State Online Innovation Fund		\$8,878		\$23,600		\$28,106		\$31,975		\$35,593
4. College of Health Sciences Revenue Share								\$33,574		\$37,372
6. Credit card fees										
Utilites										
Maintenance & Repairs										
Other										
Total Other Costs	\$0	\$66,588	\$0	\$177,003	\$0	\$210,793	\$0	\$273,387	\$0	\$304,317
TOTAL EXPENDITURES:	\$0	\$365,779	\$0	\$506,736	\$0	\$556,976	\$0	\$648,021	\$0	\$687,389
Net Income (Deficit)	\$0	-\$143,818	\$0	\$83,272	\$0	\$145,666	\$0	\$151,355	\$0	\$202,425
Budget Notes (specify row and add explanation where needed; e.g., "I.A.,B. FTE is calculated using..."):										
III.E.1	Boise State Central Services: 10% of Revenue									
III.E.2	Boise State eCampus Center: Provide funding for initiative management, online course/program development and other support services (11% of revenue)									
III.E.3	Boise State Online Innovation Fund: Seed funding for academic programs, initiative infrastructure, and eventually innovation grants (5% of revenue)									
III.E.4	College of Health Sciences Revenue Share (4.2% share)									

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
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Appendix A: Curriculum - M.S. in Genetic Counseling and Healthcare Genetics Certificate

Master of Science in Genetic Counseling	
<i>Course Number and Title</i>	<i>Credits</i>
GENCOUN 5XX Wellness Seminar	1
GENCOUN 5XX Principles of Human Genetics	3
GENCOUN 5XX Principles and Practices of Genetic Counseling I	3
GENCOUN 5XX Principles and Practices of Genetic Counseling II	3
GENCOUN 5XX Principles and Practices of Genetic Counseling III	3
GENCOUN 5XX Principles and Practices of Genetic Counseling IV	3
GENCOUN 5XX Clinical Genetics I	2
GENCOUN 5XX Clinical Genetics II	3
GENCOUN 5XX Research Methods and Statistics	3
GENCOUN 5XX Developmental Anatomy and Embryology	3
GENCOUN 5XX Professional Issues I	1
GENCOUN 5XX Professional Issues II	1
GENCOUN 5XX Health Care Principles and Public Health	3
GENCOUN 5XX Professional Issues III	2
GENCOUN 5XX Professional Issues IV	2
GENCOUN 5XX Fieldwork I	1
GENCOUN 5XX Fieldwork II	5
GENCOUN 5XX Fieldwork III	5
GENCOUN 5XX Fieldwork IV	5
GENCOUN 5XX Capstone Project I	1
GENCOUN 5XX Capstone Project II	1
GENCOUN 5XX Capstone Project III	1
GENCOUN 5XX Capstone Project IV	1
Total	56

**School of Allied Health Sciences
Master of Science Genetic Counseling**



Genetic Counseling Degree Program

The Genetic Counseling Degree Program is committed to excellence through contemporary models of education with an emphasis on expanding student access to the profession of genetic counseling. Diverse fieldwork provides students with experiences designed to create advocates, translators, and experts in the field of genetics and genomics. Professional development will focus on inter-professional education, cultural competency, and the aspects of business in healthcare giving students the skills to be leaders and entrepreneurs. The program foundation is based on the rigorous accreditation standards regulated by the American Board of Genetic Counselors (ACGC) which strives to provide students with the training and skills needed to become qualified, competent, and compassionate professionals.

College of Health Sciences Goal

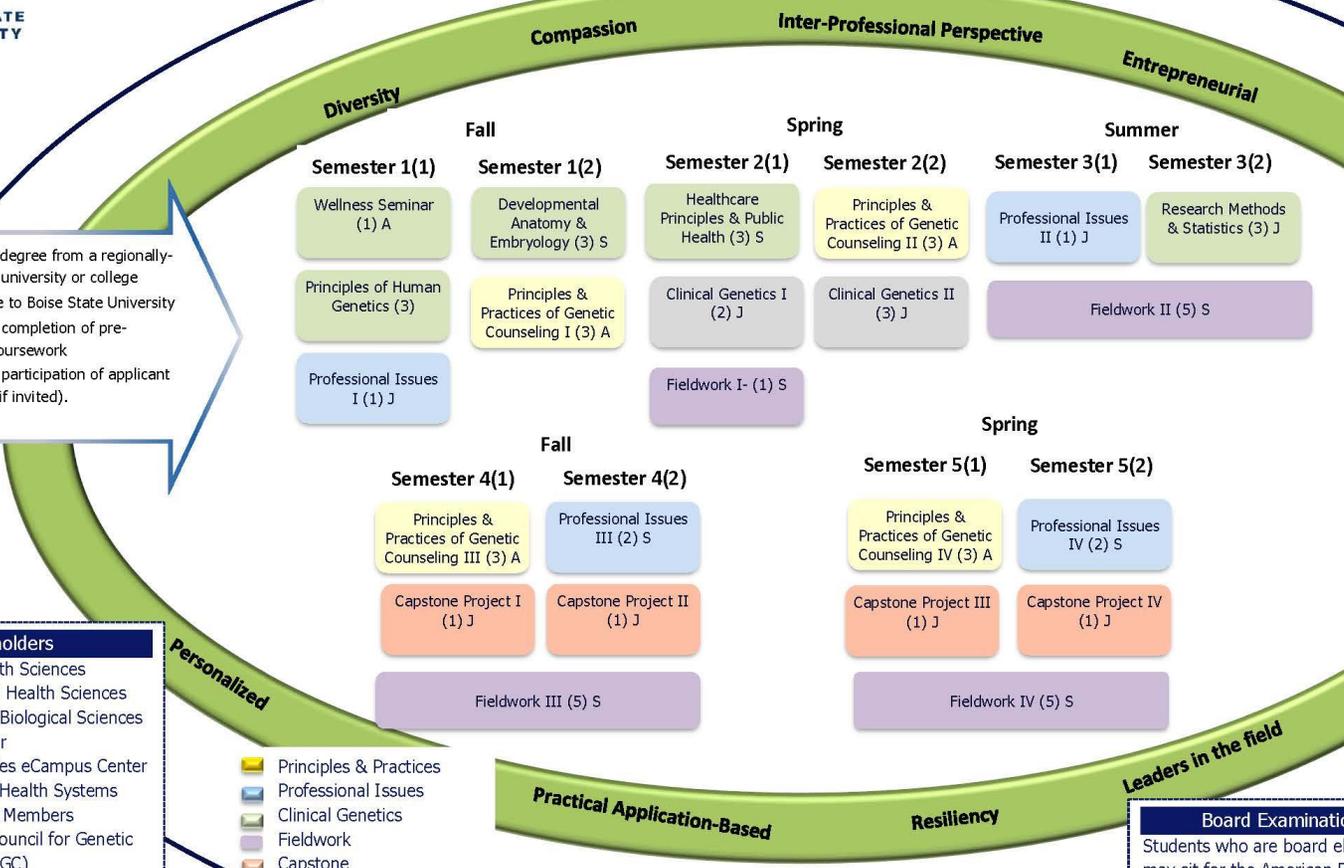
Produce reflective critical-thinkers, life-long learners, leaders and quality health practitioners.

1. Utilize knowledge of core genetic/genomic concepts and genetic counseling methodologies to manage and promote client well-being.
2. Display professional oral, written, audio/visual, and telecommunication skills appropriate to the field of genetic counseling.
3. Employ a range of effective interpersonal and psychosocial counseling skills to promote informed decision making that is client-centered, non-coercive and responsive to stated and emerging concerns.
4. Apply genetic counseling skills in a culturally responsive and respectful manner to clients from diverse backgrounds.
5. Integrate knowledge from other professions, research processes, and evidenced-based practice to think critically about the field of genetic counseling.
6. Demonstrate active commitment to inter-professional development through collaborative relationship building, mentoring, training, knowledge transfer and advocacy within the genetics community.
7. Exhibit management and leadership skills, which are relevant to the genetic counseling profession and promote bio-ethical business practice.

1. Bachelor's degree from a regionally-accredited university or college
2. Acceptance to Boise State University
3. Successful completion of pre-requisite coursework
4. Successful participation of applicant interview (if invited).

- Stakeholders**
- † College of Health Sciences
 - † School of Allied Health Sciences
 - † Department of Biological Sciences
 - † Medical Director
 - † Extended Studies eCampus Center
 - † Local Regional Health Systems
 - † Advisory Board Members
 - † Accreditation Council for Genetic Counseling (ACGC)

- Principles & Practices
- Professional Issues
- Clinical Genetics
- Fieldwork
- Capstone



Board Examination

Students who are board eligible may sit for the American Board of Genetic Counseling (ABGC) Board Examination.

Licensure

Not relevant for training; students obtain license in state of practice after graduation. Students who are "board eligible" may be granted a provisional license by their state until they pass the ABGC Board Examination taken after graduation

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SUBJECT

First Reading - Board Policy III.P Students

REFERENCE

February 2016	Board approved first reading of amendment to Board Policy III.P.16. Student Health Insurance.
April 2016	The Board approved the second reading of proposed amendments to III.P Students Student Health Insurance.
December 2016	Board considered first reading of proposed changes to Board Policies I.T. and III.P regarding Title IX and student appeals.
June 2017	Board approved first reading of proposed amendments to III.P. regarding student appeals
August 2017	Board approved second reading of proposed amendments to III.P. regarding student appeals.

APPLICABLE STATUTE, RULE, OR POLICY

Idaho State Board of Education Governing Policies and Procedures, III.P.

BACKGROUND/DISCUSSION

The Center for Disease Control and Prevention (CDC) reports college students, specifically freshmen living in residence halls or other forms of group housing, are at a higher risk of contracting bacterial meningitis as well as other vaccine-preventable diseases than the general population. The American College Health Association (ACHA) and the CDC recommend that college students, especially college freshmen, and their parents be educated about the benefits of vaccination against vaccine-preventable diseases and vaccines commonly recommended for college students. The ACHA recommends postsecondary institutions, at a minimum, make an effort to provide access to immunizations against meningococcal disease for those who would like to reduce their chances of contracting the disease.

The National Council of State Legislatures reports 37 states currently have some form of state law regarding postsecondary institutions and vaccination requirements. These laws range from requiring information be provided to freshmen students regarding the danger of vaccine preventable diseases and the benefits of being vaccinated to requirements that all students in student housing be vaccinated or sign a waiver or exemption form. During the 2017 Legislative Session Senator Martin, working with the Idaho Immunization Coalition, considered running legislation requiring all postsecondary institution that provide on-campus or group housing to provide current information about vaccine-preventable disease to each student at the time of admissions. After discussing further with Board and institution staff Senator Martin chose instead to ask the Board to consider, through Board policy, requiring institutions to provide

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information to students at the time of admission regarding vaccine preventable diseases and the benefits of vaccinations.

IMPACT

Approval of the proposed amendments would require the four year institutions to provide informational material regarding vaccine's to students at the time of admissions and eliminate the need for any legislative changes requiring the institutions to provide the informational material. The Center for Disease Control currently provides material the institutions could use, resulting in no additional cost to the institution other than those related to the distribution of the information. The information could be distributed to students in an electronic format.

ATTACHMENTS

Attachment 1 – Board Policy, III.P Students	Page 3
Attachment 2 – ACHA College Student Immunization Guidelines	Page 6
Attachment 3 – Example of available CDC Vaccine Recommendation	Page 17

STAFF COMMENTS AND RECOMMENDATIONS

The Center for Disease Control and Prevention provides recommendations divided into two categories. Category A recommendations are made for all persons in an age or risk factor based group and Category B recommendations are made for individual clinical decision making. A Category A recommendation means a vaccine is recommended for everyone in an age-group or risk factor group. A Category B recommendation means a vaccine is recommended based on an individual clinical situation. Vaccines commonly recommended for college students include: Meningococcal conjugate, Tdap (tetanus, diphtheria, and acellular pertussis), Human Papillomavirus (HPV), and seasonal influenza.

Staff recommends approval.

BOARD ACTION

I move to approve the first reading of amendments to Board Policy III.P. Students creating a new subsection 17. Student Vaccine Informational Materials as submitted in Attachment 1.

Moved by _____ Seconded by _____ Carried Yes _____ No _____

Idaho State Board of Education
GOVERNING POLICIES AND PROCEDURES
SECTION: III. POSTSECONDARY AFFAIRS
SUBSECTION: P. STUDENTS

August-December 2017

[BREAK IN CONTINUITY OF SECTIONS]

17. Student Vaccine Informational Materials

Each institution shall provide current information on vaccine-preventable disease to each student at the time of admission or enrollment for classes. The information shall include, at a minimum:

- a. symptoms, risks, especially as the risks relate to circumstances of group living arrangements for vaccine-preventable diseases that are known to occur in adolescents and adults;
- b. current recommendations by the United States Centers for Disease Control and Prevention on Category A and B vaccines;
- c. information regarding where the vaccinations can be received; and
- d. the benefits and risks of vaccinations, and specific information for those persons at higher risk for the disease.

178. Students Called to Active Military Duty

The Board strongly supports the men and women serving in the National Guard and in reserve components of the U.S. Armed Forces. The Board encourages its institutions to work with students who are called away to active military duty during the course of an academic term and provide solutions to best meet the student's current and future academic needs. The activated student, with the instructor's consent, may elect to have an instructor continue to work with them on an individual basis. Additionally, institutions are required to provide at least the following:

- a. The activated student may elect to completely withdraw. The standard withdrawal deadlines and limitations will not be applied. At the discretion of the institution, the student will receive a "W" on his or her transcript, or no indication of enrollment in the course(s).
- b. One hundred percent (100%) of the paid tuition and/or fees for the current term will be refunded, as well as a pro-rated refund for paid student housing fees, meal-plans, or any other additional fees. Provided, however, that if a student received financial aid, the institution will process that portion of the refund in accordance with each financial aid program.

189. Student Complaints/Grievances.

IRSA

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- a. The State Board of Education and Board of Regents of the University of Idaho, as the governing body of the state's postsecondary educational institutions, has established the following procedure for review of institution decisions regarding student complaints/grievances:
 - i. The Board designates its Executive Director as the Board's representative for reviewing student complaints/grievances, and authorizes the Executive Director, after such review, to issue the decision of the Board based on such review. The Executive Director may, in his/her discretion, refer any matter to the Board for final action/decision.
 - ii. A current or former student at a postsecondary educational institution under the governance of the Board may request that the Executive Director review any final institutional decision relating to a student's attendance at the institution, except as set for under paragraph c. The student must have exhausted the complaint/grievance resolution procedures that have been established at the institution level. The Executive Director will not review complaints/grievances that have not been reported to the institution, or processed in accordance with the institution's complaint/grievance resolution procedures.
 - iii. Matters involving a violation of an institution's code of student conduct will only be reviewed if the basis for the request is that the institution substantially failed to follow its procedures resulting in a failure to give the student reasonable notice of the violation and opportunity to be heard, or to present testimony. Sanctions imposed by the institution will remain in effect during the pendency of the review.
 - iv. A request for review must be submitted in writing to the Board office to the attention of the Chief Academic Officer, and must contain a clear and concise statement of the reason(s) for Board review. Such request must be received in the Board office no later than thirty (30) calendar days after the student receives the institution's final decision on such matter. The student has the burden of establishing that the final decision made by the institution on the grievance/complaint was made in error. A request for review must include a copy of the original grievance and all proposed resolutions and recommended decisions issued by the institution, as well as all other documentation necessary to demonstrate that the student has strictly followed the complaint/grievance resolution procedures of the institution. The institution may be asked to provide information to the Board office related to the student complaint/grievance.
 - v. The Chief Academic Officer will review the materials submitted by all parties and make a determination of recommended action, which will be forwarded

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to the Executive Director for a full determination. A review of a student complaint/grievance will occur as expeditiously as possible.

- vi. The Board office may request that the student and/or institution provide additional information in connection with such review. In such event, the student and/or institution must provide such additional information promptly.
 - vii. The Board's Executive Director will issue a written decision as to whether the institution's decision with regard to the student's complaint/grievance was proper or was made in error. The Executive Director may uphold the institution's decision, overturn the institution's decision, or the Executive Director may remand the matter back to the institution with instructions for additional review. Unless referred by the Executive Director to the Board for final action/decision, the decision of the Executive Director is final.
- b. The Board staff members do not act as negotiators, mediators, or advocates concerning student complaints or grievances.

ACHA Guidelines

Immunization Recommendations for College Students

Immunizations offer safe and effective protection from vaccine-preventable diseases and outbreaks. The United States is experiencing re-emergence of these diseases, in part due to factors such as un-immunized and under-immunized persons and global travel. The American College Health Association (ACHA) strongly supports the use of vaccines to protect the health of our individual students and our campus communities. In recognition of the vital role that vaccine coverage plays in community immunity (herd immunity), ACHA discourages use of nonmedical exemptions to required vaccines.

This guidance is provided to facilitate implementation of a comprehensive institutional immunization policy. Best practices for institutions of higher education include the following Immunization Recommendations for College Students (IRCS), encouraging students who request nonmedical exemptions to required vaccines to be counseled by a health service clinician, and considering exclusion of un-immunized students from school during outbreaks of vaccine-preventable diseases. Institutions may also be subject to additional requirements for prematriculation vaccinations and the granting of exemptions by state law.

The ACHA Vaccine-Preventable Diseases Advisory Committee updates this document in accordance with changing public health recommendations. These guidelines follow Advisory Committee on Immunization Practices (ACIP) recommendations published by the U.S. Centers for Disease Control and Prevention (CDC). Links to full information regarding ACIP provisional and final recommendations, including schedules, indications, precautions, and contraindications, are available at the CDC National Immunization Program website: <http://www.cdc.gov/vaccines/index.html>.

In addition to implementing a comprehensive institutional immunization policy, institutions are also encouraged to screen for tuberculosis (TB) infection, especially those students who are at increased risk, as this is a key strategy for controlling and preventing infection on college and university campuses. ACHA Guidelines for Tuberculosis Screening and Targeted Testing of College and University Students are available at www.acha.org/guidelines.

VACCINES TO REDUCE OUTBREAKS

Outbreaks, although much less common than sporadic disease occurrences, cause great disruption and emotional and financial burdens for campuses, students, and their families. Assuring compliance with the following immunization recommendations is particularly important in preventing disease clusters and outbreaks on campuses.

INFLUENZA VACCINE

- Inactivated influenza vaccines: Trivalent (IIV3) or Quadrivalent (IIV4) or Recombinant (RIV3)
- Live attenuated influenza vaccine (LAIV; licensed for healthy, nonpregnant persons age 2-49 years) *

VACCINATION SCHEDULE: Annually (recommendation applies to any and all flu vaccines)

MAJOR INDICATIONS:

All members of a campus community age 6 months or older should receive annual vaccination.

College students at high risk of complications from the flu due to asthma, diabetes, or certain immuno-deficiencies; and students with contact with a high-risk individual.

Students enrolled in health care professional programs should receive annual influenza vaccination.

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity to any of the components of the vaccine (applies to any and all flu vaccines)
Note that persons allergic to eggs may safely receive flu vaccines.

*CDC's ACIP is not currently recommending use of LAIV due to lack of effectiveness.

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MEASLES, MUMPS, RUBELLA (MMR) VACCINE

VACCINATION SCHEDULE: Two doses of MMR at least 28 days apart after 12 months of age.

MAJOR INDICATIONS:

- All college students born after 1956 without lab evidence of disease.
- All health care professional students without other evidence of immunity should receive two doses of MMR.
- Those born before 1957 without other evidence of immunity should receive one dose if not in an outbreak setting and two doses if in an outbreak.

CONTRAINDICATIONS AND PRECAUTIONS: Pregnancy, history of hyper-sensitivity or anaphylaxis to any of the components in the vaccine. Receipt of blood products and moderate or severe acute infections. Guidelines exist for vaccination of persons with altered immunocompetence.

MENINGOCOCCAL QUADRIVALENT (A, C, Y, W-135) VACCINE

- Conjugate (Preferred)
- Polysaccharide (Acceptable alternative if conjugate not available)

VACCINATION SCHEDULE:

- Initial dose of conjugate vaccine: 11-12 yrs of age
- Booster dose: 16 yrs of age
- If initial dose given age 13-15 yrs: booster dose at 16-18 yrs of age
- If initial dose given age ≥ 16 yrs, no booster dose required

Persons with persistent complement component deficiencies or asplenia should receive a 2-dose primary series administered 2 months apart and then receive a booster dose every 5 years. Adolescents aged 11 through 18 years with HIV infection should be routinely vaccinated with a 2-dose primary series. Other persons with HIV who are vaccinated should receive a 2-dose primary series administered 2 months apart. All other persons at increased risk for meningococcal disease (e.g., microbiologists or travelers to an epidemic or highly endemic country) should receive a single primary dose.

For colleges and university with meningococcal vaccine policies as a requirement of enrollment or on-campus living: students 21 years of age and younger should have documentation of a dose of conjugate vaccine at ≥ 16 years of age. The booster dose can be administered any time after the 16th birthday. The minimum interval between doses of meningococcal conjugate vaccine is 8 weeks.

Routine vaccination of healthy persons who are not at increased risk for exposure is not recommended after age 21 years.

MAJOR INDICATIONS:

Adolescents 11-18 years of age and other populations at increased risk, including college students living in residence halls/similar housing, etc., persons with persistent complement deficiencies or asplenia, laboratory personnel with exposure to aerosolized meningococci, and travelers to hyperendemic or endemic areas of the world. Non-freshmen college students may choose to be vaccinated to reduce their risk of meningococcal disease. *

CONTRAINDICATIONS AND PRECAUTIONS:

History of hypersensitivity or serious adverse reaction to any of the components in the vaccine.

Avoid vaccinating persons who are known to have experienced Guillain-Barre (GBS) syndrome.

There is a theoretical risk of increased rates of local or systemic reactions when two diphtheria toxoid-containing vaccines are administered within a short interval (i.e., on different days). Efforts should be made to administer Tdap and tetravalent meningococcal conjugate (MCV4) vaccines simultaneously if both are indicated. If simultaneous vaccination is not feasible, Tdap and MCV4 vaccines (which contain diphtheria toxoid) can be administered in any sequence.

**Colleges may target all matriculating freshmen if targeting those in residence halls/similar housing is not feasible.*

SEROGROUP B MENINGOCOCCAL VACCINE

- MenB-4C (Bexsero[®], 2 dose series)
- MenB-FHbp (Trumenba[®], 2 or 3 dose series)

VACCINATION SCHEDULE:

- For MenB-4C: 0-2 months (Category A or B below)
- For MenB-FHbp: 0-2-6 months (Category A below), or 0-6 months (Category B below)

MAJOR INDICATIONS:

Category A: Should be administered to persons at increased risk due to:

- Outbreaks of serogroup B meningococcal disease
- Persistent complement component deficiencies
- Treatment with eculizumab for hemolytic uremic syndrome or paroxysmal nocturnal hemoglobinuria
- Anatomic or functional asplenia including sickle cell disease
- Laboratory workers routinely exposed to isolates of *N. meningitidis*

[Category A: Recommendations made for all persons in age or risk-factor group.]

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Category B: May be administered to:

- Adolescents and young adults age 16–23 for short term protection (preferred age 16–18)
- Serogroup B vaccines may be administered with Men ACW but at different anatomic site, if possible.

[Category B: Recommendations are made through consultation and discussion between the individual and their health care provider.]

CONTRAINDICATIONS AND PRECAUTIONS:

- Defer in pregnant or lactating females unless at increased risk.
- History of hypersensitivity to any of the components of the vaccine.
- MenB-4 (Bexsero[®]): use with caution if hypersensitive to latex.
- The two vaccines are not interchangeable, so the same product must be used for all doses.

TETANUS, DIPHTHERIA, PERTUSSIS VACCINE

- DT: pediatric (<age 7 years) preparation of diphtheria and tetanus toxoids.
- DTaP: pediatric (<age 7 years) preparation of diphtheria, tetanus toxoids, and acellular pertussis.
- DTP (also known as DTwP): pediatric (<age 7 years) preparation of diphtheria, tetanus toxoids, and whole cell pertussis (no longer available in the U.S.).
- Td: 7 years and older preparation of tetanus toxoid and reduced diphtheria toxoid.
- Tdap: adolescent and older preparation of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis.

VACCINATION SCHEDULE:

Primary series in childhood (4 doses: DT, DTaP, DTP, or Td)

Booster doses: For adolescents 11–18 and adults 19–64: single dose of Tdap. Tdap can be administered regardless of interval since the last tetanus or diphtheria toxoid-containing vaccine.

Routine booster dose intervals: Adults should receive Td boosters at 10 year intervals, beginning 10 years after receiving Tdap.

Tetanus prophylaxis in wound management: For all age groups, patients who require a tetanus toxoid containing vaccine as part of wound management should receive Tdap instead of Td if they have not previously received Tdap. If Tdap is not available or was administered previously, Td should be administered.

MAJOR INDICATIONS: All college students. One dose of Tdap for all individuals ages 11–64 regardless of interval since last Td booster.

CONTRAINDICATIONS AND PRECAUTIONS:

History of hypersensitivity or serious adverse reaction to any of the components in the vaccine.

There is a theoretical risk of increased rates of local or systemic reactions when two diphtheria toxoid-containing vaccines are administered within a short interval (i.e., on different days). Efforts should be made to administer Tdap and tetravalent meningococcal conjugate (MCV4) vaccines simultaneously if both are indicated. If simultaneous vaccination is not feasible, Tdap and MCV4 vaccines (which contain diphtheria toxoid) can be administered in any sequence.

VARICELLA VACCINE

VACCINATION SCHEDULE: Two doses of varicella-containing vaccine at least 12 weeks apart if vaccinated between 1 and 12 years of age and at least 4 weeks apart if vaccinated at age 13 years or older.

MAJOR INDICATIONS:

- All college students without other evidence of immunity (e.g., born in the U.S. before 1980, a history of disease, two prior doses of varicella vaccine, or a positive antibody).
- All health care professional students with only one documented dose of vaccine or with a negative antibody titer should receive a total of two doses of vaccine.

CONTRAINDICATIONS AND PRECAUTIONS: Pregnancy, history of hyper-sensitivity or anaphylaxis to any of the components in the vaccine, and severe illness. Guidelines exist for vaccination of persons with altered immunocompetence.

OTHER VACCINES RECOMMENDED FOR ADULTS

The following vaccines are recommended for adults. College matriculation provides the opportunity to assure that students receive the appropriate vaccines.

HEPATITIS A VACCINE

VACCINATION SCHEDULE: Given as a series of 2 doses (given at 0, 6–12 mo.) for age 12 months or greater. *

MAJOR INDICATIONS: Recommended for routine use in all adolescents through the age of 18 and in particular for adolescent and adult high-risk groups (i.e., persons traveling to countries where hepatitis A is moderately or highly endemic, men who have sex with men, users of injectable and non-injectable drugs, persons who have clotting-factor disorders, persons working with nonhuman primates, and persons with chronic liver disease).

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity to any of the components of the vaccine.

*Combined hepatitis A and B vaccines may be given as a series of 3 doses (given at 0, 1-2, and 6-12 mo.) for 18 years of age and older.

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HEPATITIS B VACCINE

VACCINATION SCHEDULE: Given as a series of 3 age appropriate doses (given at 0, 1–2 mo., and 6–12 mo.) at any age. Adolescents ages 11–15 years can be given 2 adult doses (given at 0 and 4-6 mo.) *

MAJOR INDICATIONS: All college students. In particular, students enrolled in health care professional programs should receive Hepatitis B vaccination.

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity to any of the components of the vaccine.

**Combined hepatitis A and B vaccines may be given as a series of 3 doses (given at 0, 1-2, and 6-12 mo.) for 18 years of age and older.*

HUMAN PAPILLOMAVIRUS (HPV) VACCINE

- 9-valent (HPV9) [Bivalent (HPV2) and Quadrivalent (HPV4) are no longer available]

VACCINATION SCHEDULE:

The 9-valent vaccine may be used to complete the series begun with a different product.

All persons 11-14 years: 2 doses separated by at least 6 months; may start at age 9 for increased risk groups

If no prior HPV vaccine given:

- Women ages 15 to 26 years: 3 doses
- Men ages 15 to 21 years: 3 doses
- Men ages 15 to 26 years who have sex with men (MSM): 3 doses
- Transgender and gender non-conforming persons ages 15 to 26 years: 3 doses
- Men ages 15 to 26 years with HIV or other immune compromising conditions: 3 doses
- May be given to men ages 21-26

Historical Vaccine Schedule (The following vaccines are no longer available and have been replaced by the 9-valent vaccine):

- *Bivalent vaccine: for people assigned female at birth, three doses at 0, 1, and 6 months*
- *Quadrivalent vaccine: people assigned female at birth, 11 to 26 years old; and people assigned male at birth, 11 to 21 years old, three doses at 0, 1-2, and 6 months*

MAJOR INDICATIONS:

All 11- or 12-year olds; may be started at age 9.

If not vaccinated previously: women through age 26 and men through age 21.

If not vaccinated previously:

- Young men through age 26 who have sex with men, including those who identify as gay or bisexual or who intend to have sex with men;
- Young adults through age 26 who are transgender or gender non-conforming; and
- Young adults through age 26 with certain immunocompromising conditions (including HIV).

The HPV vaccines are indicated for prevention of cervical cancers in women and for use in both females and males for the prevention of pre-cancers and genital warts, anal cancer, and anal intraepithelial dysplasia caused by HPV types included in the vaccine. No HPV or Pap test screening is required prior to administering vaccine; routine cervical cancer screening should continue according to current recommendations.

CONTRAINDICATIONS AND PRECAUTIONS: Pregnancy, history of hyper-sensitivity to yeast or to any vaccine component; moderate or severe acute illnesses (defer vaccine until improved); may be given to immunocompromised males and females but vaccine responsiveness and efficacy may be reduced.

PNEUMOCOCCAL VACCINE

- Pneumococcal conjugate vaccine (PCV13, Prevnar13)
- Pneumococcal Polysaccharide Vaccine-23 (PPSV23, Pneumovax 23)

VACCINATION SCHEDULE: Childhood, adolescence, adulthood

MAJOR INDICATIONS: Adults with certain medical conditions (see Appendix A); adults age 65 and older

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity to any of the components of the vaccine.

POLIO VACCINE

- Inactivated (IPV)
- Oral poliovirus (OPV no longer available in U.S.)

VACCINATION SCHEDULE: Primary series in childhood with IPV alone, OPV alone, or IPV/OPV sequentially; IPV booster only if needed for travel after age 18 years.

MAJOR INDICATIONS: IPV for certain international travelers to areas or countries where polio is epidemic or endemic.

CONTRAINDICATIONS AND PRECAUTIONS: History of hypersensitivity to any of the components of the vaccine.

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APPENDIX A

Medical Conditions or Other Indications for Administration of 13-valent Pneumococcal Conjugate Vaccine (PCV13) and Indications for 23-valent Pneumococcal Polysaccharide Vaccine (PPSV23)

For appropriate intervals refer to CDC. *

Underlying condition	PPSV23	PCV 13	Revaccination 5 years after first dose
<ul style="list-style-type: none"> • cigarette smoking • chronic heart or lung disease • diabetes mellitus • alcoholism • cirrhosis • liver disease 	X		
<ul style="list-style-type: none"> • CSF leak • cochlear implant 		X	
<ul style="list-style-type: none"> • sickle disease • congenital or acquired asplenia • HIV positive • congenital or acquired immunodeficiency • chronic renal failure • nephrotic syndrome • leukemia • lymphoma • Hodgkins disease • generalized malignancy • iatrogenic immunosuppression • solid organ transplant, • multiple myeloma 	X	X	X

*Source: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6434a4.htm>

See also <https://www.cdc.gov/vaccines/vpd/pneumo/downloads/pneumo-vaccine-timing.pdf>

APPENDIX C

Recommendations for Immunizations and TB Testing for Health Science Students

Overview

Influenza: 1 dose of inactivated Influenza vaccine yearly.

Hepatitis B: 3-dose series of hepatitis B vaccine given at 0, 1 and 6 months **AND** documented quantitative hepatitis B surface antibody titer consistent with immunity after the appropriate vaccine series.

Measles/Mumps/Rubella (MMR): 2 doses of MMR vaccine at least 28 days apart after 12 months of age **OR** 2 doses of measles **and** 2 doses of Mumps at least 28 days apart after 12 months of age **and** one dose of rubella after 12 months of age **OR** laboratory proof of immunity to measles/mumps/rubella.

Tetanus/Diphtheria/Pertussis: In addition to primary series, all Health Care Personnel (HCP) should receive 1 dose of Tdap and have documentation of a Td or Tdap within the past 10 years.

Tuberculosis Testing: The CDC recommends initial base line testing with a 2-step TB skin test or a blood test for TB infection. Subsequent annual or serial screening is determined by state regulations or risk assessment.

Varicella: 2 doses of varicella vaccine given at least 4 weeks apart **OR** laboratory proof of immunity for those with a history of disease. If titer is negative or equivocal, give 2-dose varicella vaccine series. Do not repeat titer after series completion.

Note: Local requirements and clinical circumstances should be taken into consideration when using these guidelines to develop an institutional immunization policy for health science students.

Hepatitis B:

Students must have a series of 3 hepatitis B vaccines **AND** a positive (≥ 10 mIU/mL) serological quantitative Hepatitis B surface antibody titer (anti-HBs or HBsAb) that was performed at least 1-2 months after the 3rd dose of hepatitis B vaccine. A positive titer without documentation of the 3 shot series will not be accepted.

For students with remote history of documented vaccine series completion without titer:

Draw anti-HBs titer upon matriculation

- If the anti-HBs titer is negative or equivocal, administer 1 dose of hepatitis B vaccine (#4) and re-titer at least 1-2 months after the dose.
- If the second anti-HBs titer is negative, the student will get 2 additional hepatitis B vaccines (#5 and #6) at 1 month and 6 months following dose #4. Students should pay particular attention to the date ranges in between the 3 hepatitis B vaccine doses to ensure that they are given at the appropriate time intervals for compliance.
- A final anti-HBs titer should be performed 1-2 months after the 3rd vaccine (dose #6) in the repeated hepatitis B series.
- If the student has received 2 complete series of hepatitis B vaccine (6 doses total) and does not have a positive anti-HBs titer, they are considered a “non-responder” and must be evaluated by student health personnel for further evaluation and recommendations.
- HCP who are non-responders should be considered susceptible to hepatitis B infection and should be counseled about precautions to prevent HBV infection and the need to receive hepatitis B Immunoglobulin upon exposure to hepatitis B surface antigen positive (HBsAg) blood or fluids or blood or fluids with unknown HBsAg status. Non-responders should also be tested for HBsAg to evaluate for chronic hepatitis B infection. HCP who are chronic hepatitis B carriers should be counseled as to local and state guidelines for the safe provision of healthcare.

For unvaccinated HCP students or those with recent history of documented vaccine completion

Administer a 3-dose series of hepatitis B vaccine at 0, 1, and 6 months **AND** perform anti-HBs titer 1-2 months after dose #3 to document immunity.

- If anti-HBs is greater than or equal to 10 mIU/ml, the HCP is considered immune and no further testing or vaccination is recommended
- If the anti-HBs titer is less than 10 mIU/ml, the student should receive 3 additional doses of vaccine per the usual schedule of 0, 1, and 6 months, and a repeated titer should be performed 1-2 months after dose #3.

Influenza:

It is strongly recommended that all healthcare personnel receive the influenza vaccine yearly and many clinical sites require it as a condition of rotation for students.

(immunization recommendations for health science students continues)

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Measles/Mumps/Rubella:

Students must meet any of the following 3 options to meet the measles, mumps, and rubella (MMR) vaccine requirement:

1. 2 doses of MMR vaccine at least 28 days apart after 12 months of age.
2. 2 doses of measles vaccine **and** 2 doses of mumps vaccine at least 28 days apart after 12 months of age **and** 1 dose of rubella vaccine after 12 months of age
3. Laboratory proof of immunity (blood titer) to measles, mumps and rubella. If titers are negative or equivocal, the student will receive the MMR series with at least 28 days between each dose. No titer is required after the MMR vaccine series.

Tetanus/Diphtheria/Pertussis:

Students must have had 1 dose of Tdap, the tetanus/diphtheria/pertussis vaccine (brand name Adacel or Boostrix). If the student does not have documentation of receiving a Tdap vaccine or is unsure if they have received it, a Tdap vaccine should be administered as soon as feasible without regard to the interval since the previous dose of Td. A Td booster or a Tdap is required within 10 years prior to matriculation.

Tuberculosis Screening

Upon matriculation, health science students should undergo baseline testing for tuberculosis with either a 2-step Tuberculin Skin Test or a blood test for TB infection (Interferon Gamma Release Assay, IGRA)

Tuberculin Skin Test (TST) – 2-Step

Initial repeat testing is recommended for persons with a negative TST who are to undergo periodic TST screening and who have not been tested with tuberculin recently (within 1 year). This is intended to avoid “booster phenomenon” a misclassification of a subsequently reactive TST after initial testing as a TST conversion indicating recent infection.

- The criteria for positivity is based on risk factors. HCP are at intermediate risk.
- Individuals who have received the BCG vaccine should have their results interpreted according to standard criteria
- 2-Step TST is performed by intradermal injection of PPD (purified protein derivative) with the student returning in 48-72 hours to record induration and interpreted according to risk factors. If negative, a second TST is placed on the opposite forearm 7-21 days after initial negative results and the results are interpreted in the standard fashion
- If the repeat TST is positive, this is a true positive result and the student should be evaluated for latent or active TB.

IGRA

- CDC now endorses IGRA for initial screening and surveillance of HCP
- Two tests are available, Quantiferon Gold and T-spot
- Do not require a second patient visit
- Considered as sensitive as TST but more specific
- IGRA preferred to TSTs in persons who have received BCG or who are unlikely to return for a test reading in 48-72 hours

Serial Testing

- Utilize same testing methodology TST or IGRA

Utilize same brand of IGRA for serial testing

Varicella:

Students must have either 1 of the following 2 options to meet the varicella vaccine requirement:

1. 2 documented varicella vaccines that were given at least 4 weeks apart.
2. Laboratory proof of immunity (blood titer) to varicella. If the varicella titer is negative or equivocal, the student will receive the varicella series with the doses at least 4 weeks apart. No titer is required after the varicella vaccine series.

An affidavit or documentation of the student having had varicella disease (i.e., chicken pox or shingles) will not be accepted for any Health Science Student.

(immunization recommendations for health science students continues)

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Health Science Initial Immunization Record

Student Name: _____ ID#: _____

Tetanus/Diphtheria/Pertussis: 1 dose of adult Tdap. If last Tdap is more than 10 years old, provide date of last Td and Tdap.				
Td	Mo./day/year	Mo./day/year	Mo./day/year	Mo./day/year
Tdap booster **Must have one documented	Mo./day/year			
Measles/Mumps/Rubella: 2 doses of MMR at least 28 days apart after 12 months of age OR 2 doses of Measles and 2 doses of Mumps at least 28 days apart after 12 months of age and 1 dose of Rubella after 12 months of age OR laboratory proof of immunity (blood titer) to measles/mumps/rubella. If titers are negative or equivocal, administer MMR series with doses at least 28 days apart. No titer is required after series completion.				
MMR - 2 required on or after 1st birthday	(#1) Mo./day/year	(#2) Mo./day/year		
OR				
Measles 2 required on or after first birthday	(#1) Mo./day/year	(#2) Mo./day/year		
Mumps 2 required on or after first birthday	(#1) Mo./day/year	(#2) Mo./day/year		
Rubella 1 required on or after first birthday	Mo./day/year			
OR				
MMR Titer *must attach laboratory results	Date of Titer	Result		
Varicella: 2 doses of Varicella at least 4 weeks apart OR laboratory proof of immunity to varicella. If titer is negative or equivocal, administer Varicella series with doses at least 4 weeks apart. No titer is required after series.				
Varicella 2 doses	(#1) Mo./day/year	(#2) Mo./day/year		
OR				
Varicella Titer *must attach laboratory results	Date of Titer	Result		
Hepatitis B: 3 doses of hepatitis B vaccines and a positive (≥ 10 mIU/mL) serological <u>quantitative</u> hepatitis B surface antibody titer (HBsAb) 1-2 months after the date of the last vaccine is considered proof of lifelong immunity. If series was completed in the remote past, and if the titer checked upon matriculation is negative, student will get 1 hepatitis B vaccine dose (#4) and re-titer at least 1-2 months after vaccine. If the second titer is negative, student will get 2 additional hepatitis B vaccines (#5 and #6) per the standard schedule. A final titer should be done 1-2 months after the 6th vaccine and if this is negative, the student should be considered a non-responder and evaluated and counseled appropriately. Those students recently vaccinated with a negative titer after the 3 rd dose can receive a second series with a re-titer 1-2 months after the 6 th dose. Non-responders should be counseled and evaluated appropriately.				
Hepatitis B Series 3 doses required	(#1) mo./day/year	(#2) mo./day/year	(#3) mo./day/year	
Hepatitis B Quantitative Titer *must attach laboratory results	Date of Titer	Result		
Hepatitis B Series Repeat	(#1) mo./day/year	(#2) mo./day/year	(#3) mo./day/year	
Hepatitis B <u>Quantitative</u> Titer Repeat *must attach laboratory results	Date of Titer	Result		
Tuberculin Skin Test (TST): 2 TSTs placed within the last 12 months within the United States. The 2 nd TST must be placed at least 1 week AFTER the 1 st TST read date.				
2 Step TST placed within the past 12 months	1 st TST Place date	1 st TST Read Date	2 nd TST Place Date	2 nd TST Read date
OR				
<i>IGRA TB Screening</i> *must attach laboratory results ___ T-Spot ___ Quantiferon Gold	Date of IGRA	Result		

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Prepared by ACHA's Vaccine-Preventable Diseases Advisory Committee



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VACCINE INFORMATION STATEMENT

Serogroup B Meningococcal Vaccine (MenB): What You Need to Know

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis

Hojas de información sobre vacunas están disponibles en español y en muchos otros idiomas. Visite www.immunize.org/vis

1 Why get vaccinated?

Meningococcal disease is a serious illness caused by a type of bacteria called *Neisseria meningitidis*. It can lead to meningitis (infection of the lining of the brain and spinal cord) and infections of the blood. Meningococcal disease often occurs without warning—even among people who are otherwise healthy.

Meningococcal disease can spread from person to person through close contact (coughing or kissing) or lengthy contact, especially among people living in the same household.

There are at least 12 types of *N. meningitidis*, called “serogroups.” Serogroups A, B, C, W, and Y cause most meningococcal disease.

Anyone can get meningococcal disease but certain people are at increased risk, including:

- Infants younger than one year old
- Adolescents and young adults 16 through 23 years old
- People with certain medical conditions that affect the immune system
- Microbiologists who routinely work with isolates of *N. meningitidis*
- People at risk because of an outbreak in their community

Even when it is treated, meningococcal disease kills 10 to 15 infected people out of 100. And of those who survive, about 10 to 20 out of every 100 will suffer disabilities such as hearing loss, brain damage, kidney damage, amputations, nervous system problems, or severe scars from skin grafts.

Serogroup B meningococcal (MenB) vaccines can help prevent meningococcal disease caused by serogroup B. Other meningococcal vaccines are recommended to help protect against serogroups A, C, W, and Y.

2 Serogroup B Meningococcal Vaccines

Two serogroup B meningococcal vaccines—Bexsero[®] and Trumenba[®]—have been licensed by the Food and Drug Administration (FDA).

These vaccines are recommended routinely for people 10 years or older who are at increased risk for serogroup B meningococcal infections, including:

- People at risk because of a serogroup B meningococcal disease outbreak
- Anyone whose spleen is damaged or has been removed
- Anyone with a rare immune system condition called “persistent complement component deficiency”
- Anyone taking a drug called eculizumab (also called Soliris[®])
- Microbiologists who routinely work with isolates of *N. meningitidis*

These vaccines may also be given to anyone 16 through 23 years old to provide short term protection against most strains of serogroup B meningococcal disease; 16 through 18 years are the preferred ages for vaccination.

For best protection, more than 1 dose of a serogroup B meningococcal vaccine is needed. The same vaccine must be used for all doses. Ask your health care provider about the number and timing of doses.

3 Some people should not get these vaccines

Tell the person who is giving you the vaccine:

- **If you have any severe, life-threatening allergies.**
If you have ever had a life-threatening allergic reaction after a previous dose of serogroup B meningococcal vaccine, or if you have a severe allergy to any part of this vaccine, you should not get the vaccine. *Tell your health care provider if you have any severe allergies that you know of, including a severe allergy to latex.* He or she can tell you about the vaccine’s ingredients.
- **If you are pregnant or breastfeeding.**
There is not very much information about the potential risks of this vaccine for a pregnant woman or breastfeeding mother. It should be used during pregnancy only if clearly needed.

If you have a mild illness, such as a cold, you can probably get the vaccine today. If you are moderately or severely ill, you should probably wait until you recover. Your doctor can advise you.

4 Risks of a vaccine reaction

With any medicine, including vaccines, there is a chance of reactions. These are usually mild and go away on their own within a few days, but serious reactions are also possible.

More than half of the people who get serogroup B meningococcal vaccine have **mild problems** following vaccination. These reactions can last up to 3 to 7 days, and include:

- Soreness, redness, or swelling where the shot was given
- Tiredness or fatigue
- Headache
- Muscle or joint pain
- Fever or chills
- Nausea or diarrhea

Other problems that could happen after these vaccines:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting and injuries caused by a fall. Tell your provider if you feel dizzy, or have vision changes or ringing in the ears.
- Some people get shoulder pain that can be more severe and longer-lasting than the more routine soreness that can follow injections. This happens very rarely.
- Any medication can cause a severe allergic reaction. Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very remote chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit: www.cdc.gov/vaccinesafety/

5 What if there is a serious reaction?

What should I look for?

- Look for anything that concerns you, such as signs of a severe allergic reaction, very high fever, or unusual behavior.

Signs of a **severe allergic reaction** can include hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, and weakness. These would usually start a few minutes to a few hours after the vaccination.

What should I do?

- If you think it is a **severe allergic reaction** or other emergency that can't wait, call 9-1-1 and get to the nearest hospital. Otherwise, call your clinic.

Afterward the reaction should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your doctor should file this report, or you can do it yourself through the VAERS web site at www.vaers.hhs.gov, or by calling **1-800-822-7967**.

VAERS does not give medical advice.

6 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines.

Persons who believe they may have been injured by a vaccine can learn about the program and about filing a claim by calling **1-800-338-2382** or visiting the VICP website at www.hrsa.gov/vaccinecompensation. There is a time limit to file a claim for compensation.

7 How can I learn more?

- Ask your health care provider. He or she can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call **1-800-232-4636 (1-800-CDC-INFO)** or
 - Visit CDC's website at www.cdc.gov/vaccines



INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
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SUBJECT

Board Policy III.N., General Education – Second Reading

REFERENCE

February 27, 2014	The Board approved the first reading of proposed new Policy III.N, General Education.
April 17, 2014	The Board approved the second reading of proposed new Policy III.N, General Education.
January 22, 2015	The Board approved a waiver to Board Policy III.N.4.a as it applies to Associate of Applied Science Degrees for the 2015-2016 academic year.
April 2015	The Board approved the first reading of proposed amendments to Board Policy III.N.
June 2015	The Board approved the second reading of Board Policy III.N.
February 2017	The Board approved the second reading of Board Policy III.N.
August 2017	The Board approved the first reading of Board Policy III.N.

APPLICABLE STATUTES, RULE OR POLICY

Idaho State Board of Education Governing Policies & Procedures, Section III.N, General Education

BACKGROUND / DISCUSSION

Board Policy III.N., General Education outlines the statewide General Education Framework, which provides guidance to Idaho’s public institutions in identifying courses that meet the General Education Matriculation (GEM) competencies for the facilitation of seamless credit transfer for students.

The proposed policy amendments provide clarity for the transfer of GEM courses and clarify the general education requirements for the AAS degree. Other edits include incorporating a three-year cycle for updating general education competencies and clarifying duties for the general education committee. This policy has also been shared with Council on Academic Affairs and Programs (CAAP) and the state general education committee, and updates have been provided based on feedback offered to Board staff.

An additional change has been made between first and second reading, which clarifies that all GEM courses transfer, including institutionally designated courses, and meet this general education requirement with or without prior completion of the GEM framework. This should enable added flexibility with courses meeting degree requirements upon transfer, and ensuring less hours are needed for completion when transferring.

IMPACT

Approval of the proposed amendments will clarify the application of institutionally

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designated courses for general education requirements for associate and baccalaureate degrees. It also provides clarification for the responsibility of the state general education committee and state discipline-specific groups to address issues with GEM competency areas and courses when directed to do so by the Board.

ATTACHMENTS

Attachment 1 – Board Policy III.N, General Education – First Reading Page 3

STAFF COMMENTS AND RECOMMENDATIONS

The primary purpose behind the development of the GEM framework was to make the transfer and articulation of courses and credits more transparent and easier for students who may take courses from multiple institutions in order to complete a degree. Courses are evaluated and approved by individual institutions to meet GEM area competencies, and are guaranteed to satisfy the same requirement upon being transferred to another institution. With additional clarification regarding the application of institutionally designated electives for all programs, as well as added guidance for the role of various groups involved with overseeing GEM competency standards, course relevancy, and seamless transfer, the proposed changes will help provide direction and scope towards mitigating issues involving GEM curriculum and articulation.

Proposed amendments were shared with the Statewide General Education Committee and with CAAP at its July 20, 2017 meeting and recommends approval.

Staff recommends approval.

BOARD ACTION

I move to approve the first reading of the proposed amendments to Board Policy III.N, General Education as presented in Attachment 1.

Moved by _____ Seconded by _____ Carried Yes _____ No _____

**Idaho State Board of Education
GOVERNING POLICIES AND PROCEDURES**

SECTION: III. POSTSECONDARY AFFAIRS

SUBSECTION: N. Statewide General Education

February-October 2017

In our rapidly-changing world, students need to understand how knowledge is generated and created. They need to adapt to new knowledge and opportunities as they arise, as well as effectively communicate and collaborate with increasing diverse communities and ways of knowing. In combination with a student’s major, general education curriculum prepares students to use multiple strategies in an integrative manner, to explore, critically analyze, and creatively address real-world issues and challenges. General education course work provides graduates with an understanding of self, the physical world, the development and functioning of human society, and its cultural and artistic endeavors, as well as an understanding of the methodologies, value systems, and thought processes employed in human inquiries. General education helps instill students with the personal and civic responsibilities of good citizenship. General education prepares graduates as adaptive, life-long learners.

This subsection shall apply to the University of Idaho, Boise State University, Idaho State University, Lewis-Clark State College, Eastern Idaho Technical College, College of Southern Idaho, College of Western Idaho, and North Idaho College (hereinafter “institutions”).

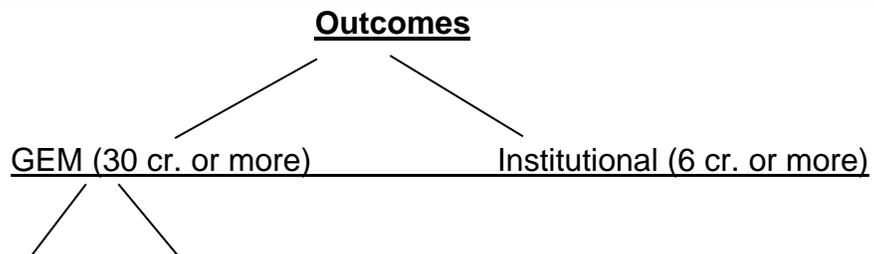
1. The state of Idaho’s general education framework for Associate of Arts, Associate of Science, and Baccalaureate degrees, outlined below in Figure 1, shall be:

The general education curricula must be thirty-six (36) credits or more.

- a. Thirty (30) credits or more of the general education curricula must fit within the general education Matriculation (GEM) competency areas defined in subsection 4 of this policy.

Six (6) or more credits of the general education curricula are reserved for institutions to address the specific mission and goals of the institution. For this purpose, institutions may create new competency areas or they may choose to count additional credits from GEM competencies. Regardless, these institutionally designated credits must have learning outcomes linked to Association of American Colleges and Universities (AAC&U) Essential Learning Outcomes.

Fig. 1: General education framework reflecting AAC&U Essential Learning



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Integrative Skills Ways of Knowing

2. The intent of the general education framework is to:
 - a. Establish statewide competencies that guide institutions' determination of courses that will be designated as GEM courses;
 - b. Establish shared rubrics that guide course/general education program assessment; and
 - c. Create a transparent and seamless transfer experience for undergraduate students.

3. There are six (6) GEM competency areas. The first two (2) emphasize integrative skills intended to inform the learning process throughout general education and major. The final four (4) represent ways of knowing and are intended to expose students to ideas and engage them in a broad range of active learning experiences. Those competencies are:
 - a. Written Communication
 - b. Oral Communication
 - c. Mathematical Ways of Knowing
 - d. Scientific Ways of Knowing
 - e. Humanistic and Artistic Ways of Knowing
 - f. Social and Behavioral Ways of Knowing

4. GEM courses in each area shall include the following competencies.
 - a. Written Communication: Upon completion of a course in this category, students are able to demonstrate the following competencies.
 - i. Use flexible writing process strategies to generate, develop, revise, edit, and proofread texts.
 - ii. Adopt strategies and genre appropriate to the rhetorical situation.
 - iii. Use inquiry-based strategies to conduct research that explores multiple and diverse ideas and perspectives, appropriate to the rhetorical context.
 - iv. Use rhetorically appropriate strategies to evaluate, represent, and respond to the ideas and research of others.
 - v. Address readers' biases and assumptions with well-developed evidence-based reasoning.
 - vi. Use appropriate conventions for integrating, citing, and documenting source material as well as for surface-level language and style.
 - vii. Read, interpret, and communicate key concepts in writing and rhetoric.

 - b. Oral Communication: Upon completion of a course in this category, students are able to demonstrate the following competencies.
 - i. Research, discover, and develop information resources and structure spoken messages to increase knowledge and understanding.

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- ii. Research, discover, and develop evidence-based reasoning and persuasive appeals for ethically influencing attitudes, values, beliefs, or behaviors.
 - iii. Adapt spoken messages to the diverse personal, ideological, and emotional needs of individuals, groups, or contexts.
 - iv. Employ effective spoken and nonverbal behaviors that support communication goals and illustrate self-efficacy.
 - v. Listen in order to effectively and critically evaluate the reasoning, evidence, and communication strategies of self and others.
 - vi. Understand key theories, perspectives, principles, and concepts in the Communication discipline, as applied to oral communication.
- c. Mathematical Ways of Knowing: Upon completion of a course in this category, a student is able to demonstrate the following competencies.
- i. Read, interpret, and communicate mathematical concepts.
 - ii. Represent and interpret information/data.
 - iii. Select, execute and explain appropriate strategies/procedures when solving mathematical problems.
 - iv. Apply quantitative reasoning to draw and support appropriate conclusions.
- d. Scientific Ways of Knowing: Upon completion of a course in this category, a student is able to demonstrate at least four (4) of the following competencies.
- i. Apply foundational knowledge and models of a natural or physical science to analyze and/or predict phenomena.
 - ii. Understand the scientific method and apply scientific reasoning to critically evaluate arguments.
 - iii. Interpret and communicate scientific information via written, spoken and/or visual representations.
 - iv. Describe the relevance of specific scientific principles to the human experience.
 - v. Form and test a hypothesis in the laboratory or field using discipline-specific tools and techniques for data collection and/or analysis.
- e. Humanistic and Artistic Ways of Knowing: Upon completion of a course in this category, students are able to demonstrate at least five (5) of the following competencies.
- i. Recognize and describe humanistic, historical, or artistic works within problems and patterns of the human experience.
 - ii. Distinguish and apply terminologies, methodologies, processes, epistemologies, and traditions specific to the discipline(s).
 - iii. Perceive and understand formal, conceptual, and technical elements specific to the discipline.
 - iv. Analyze, evaluate, and interpret texts, objects, events, or ideas in their cultural, intellectual or historical contexts.

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- v. Interpret artistic and/or humanistic works through the creation of art or performance.
 - vi. Develop critical perspectives or arguments about the subject matter, grounded in evidence-based analysis.
 - vii. Demonstrate self-reflection, intellectual elasticity, widened perspective, and respect for diverse viewpoints.
- f. Social and Behavioral Ways of Knowing: Upon completion of a course in this category, students are able to demonstrate at least four (4) of the following competencies.
- i. Demonstrate knowledge of the theoretical and conceptual frameworks of a particular Social Science discipline.
 - ii. Develop an understanding of self and the world by examining the dynamic interaction of individuals, groups, and societies as they shape and are shaped by history, culture, institutions, and ideas.
 - iii. Utilize Social Science approaches, such as research methods, inquiry, or problem-solving, to examine the variety of perspectives about human experiences.
 - iv. Evaluate how reasoning, history, or culture informs and guides individual, civic, or global decisions.
 - v. Understand and appreciate similarities and differences among and between individuals, cultures, or societies across space and time.

5. General education Requirement

- a. This subsection applies to Associate of Arts, Associate of Science, and Baccalaureate degrees. For the purpose of this policy, disciplines are indicated by courses prefixes.

General education curricula must reflect the following credit distribution:

Competency Area	Minimum Credits
Written Communication	6
Oral Communication	2
Mathematical Ways of Knowing	3
Scientific Ways of Knowing	7 (from two different disciplines with at least one laboratory or field experience)
Humanistic and Artistic Ways of Knowing	6 (from two different disciplines)
Social and Behavioral Ways of Knowing	6 (from two different disciplines)
Institutionally-Designated Credits	6

- i. GEM courses are designed to be broadly accessible to students regardless of major, thus college-level and non-GEM pre-requisites to GEM courses

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should be avoided unless deemed necessary by the institution.

- ii. Additional GEM courses, beyond the general education curricula, may be required within the major for degree completion.
- b. This subsection pertains to Associate of Applied Science (AAS) degrees.
- i. The general education curricula for the AAS degree must contain a minimum of fifteen (15) credits, so distributed in the following areas:

Competency Area	Minimum Credits
Written Communication	3
Oral Communication	3
Mathematical Ways of Knowing	3
Social and Behavioral Ways of Knowing	3
Any general education course <u>including institutionally designated courses</u>	3

- c. GEM courses and institutionally designated courses shall transfer ~~are transferable~~ as meeting the an associated general education competency ~~GEM-~~ requirement at any institution pursuant to Board policy Section III.V.
6. Governance of the general education Program and Review of Courses
- a. GEM courses are developed by faculty and approved via the curriculum approval process of the institution delivering the courses. Faculty discipline groups representing all institutions shall meet at least annually or as directed by the Board, to ensure consistency and relevance of general education competencies and courses related approved for to their respective GEM competency areas. ~~discipline.~~
 - b. The General Education Matriculation Committee (GEM Committee): The GEM Committee, shall consist of a representative from each of the institutions appointed by the Board; a representative from the Division of Career-Technical Education; ~~and~~, as an ex officio member, a representative from the Idaho Registrars Council; ~~and the Office of the State Board of Education Chief Academic Officer, who shall serve as chair to the committee.~~ To ensure alignment with AAC&U Essential Learning Outcomes and subsection 1, the Committee shall meet at least annually to review the competencies and rubrics of the general education framework for each institution. The Committee shall update general education competencies every three years. GEM Committee duties are prescribed by the Board, including those that may involve addressing issues related to competency areas and course offerings. The committee reports to the Council on Academic Affairs and Programs.

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- c. The institutions shall identify all general education courses in their curricula and identify them on the state transfer web portal.

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SUBJECT

Complete College Idaho Plan – Guided Pathways

REFERENCE

August 2010	Board established an attainment goal that 60% of Idaho's 25-34 year olds will have a postsecondary credential - degree or certificate - by 2020 based on the Georgetown study and projected Idaho workforce needs.
August 2011	Board reviewed data regarding Idaho's status in meeting the 60% goal by 2020, and heard strategies to meet the goal.
December 2011	Board approved the framework for Complete College Idaho: A Plan for Growing Talent to Fuel Innovation and Economic Growth in the Gem State, and directed staff to obtain stakeholder feedback and buy-in, and bring back the plan for approval at the June 2012 Board meeting.
June 2012	The Board approved the final version of the Complete College Idaho: A Plan for Growing Talent to Fuel Innovation and Economic Growth in the Gem State (CCI Plan) and postsecondary degree and certificate projections.
February 2013	The Board was given a comprehensive update and overview of the CCI Plan, its five strategies and underlying initiatives. The Board identified the need for the institutions to take the plan to the next level to implement.
December 2013	The Board received a CCI Plan update that focused exclusively on Transforming Remediation (Strategy Two)
September 2017	The Board adopted the recommendations submitted by the Governor's Task Force on Higher Education, which included CCI strategies such as the implementation of Guided Pathways.

BACKGROUND/DISCUSSION

When the final version of the Complete College Idaho (CCI) Plan was approved by the Board in June 2012 significant work began in collaboration with the Office of the State Board of Education and the public postsecondary institutions to

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implement many of the strategies underlying the CCI plan. The strategies are adopted from Complete College America (CCA). CCA is an alliance of 36 states, including Idaho, who have pledged to take action to: (1) significantly increase the number of students successfully completing college, and achieving degrees and credentials with value in the labor market; and, (2) close attainment gaps for traditionally underrepresented populations. One of the strategies, which are known as 'Game Changers,' involves the delivery of Guided Pathways.

Guided Pathways is the concept by which students are provided with highly structured degree plans, not individual courses. Students may begin in a limited number of "meta majors," which funnel into specific majors. For most optimal implementation, every semester of study is mapped for the entire program, and guarantees that milestone courses will be available when needed. Early warning and analytics systems can be integrated to alert advisers when students fall behind so as to ensure intervention can be delivered in a timely manner.

This presentation is intended to provide an overview of this concept and to outline progress to date in Idaho.

The CCI Plan focuses on improving educational attainment and responsive to the needs of business and those who will hire the workforce of the future. Increasing the educational attainment of Idahoans will better prepare them for future job requirements. Increased education attainment has the potential to attract out-of-state business to Idaho, thus positively impacting Idaho's future economic development. The postsecondary degree and certificate projections provided by staff and the CCI Plan provide the necessary analysis and framework for the Board to guide and direct the institutions regarding where to invest scarce resources. The CCI Plan outlines strategies for implementing the Board's strategic plan, including the Board's education attainment goals.

IMPACT

The implementation of Guided Pathways is intended to provide students with clear expectations and timeline regarding degree completion. The concept also provides students with flexibility to pursue a degree path without committing to a specific program, with minimal expense to the length of time needed to complete a degree. When supported with early warning technology it helps faculty and advisors conduct outreach and intervention to students who may not be performing well in classes. In doing so, appropriate action can be taken to address academic, social, and/or health issues as needed. In sum, this strategy can be leveraged to help ensure students complete in a timely manner in an academic program that best aligns with their interest and ability, and minimizes student debt.

ATTACHMENTS

Attachment 1 – Guided Pathways Overview

Page 5

STAFF COMMENTS AND RECOMMENDATIONS

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In addition to Board staff work with the institutions since 2012, the systemic implementation of the Game Changers was recommended by the Governor's Task Force on Higher Education. Staff will continue to provide the Board with updates on the strategies – such as Guided Pathways - that support the Game Changers. These updates will provide opportunities for Board discussion and feedback on progress and the work being conducted.

BOARD ACTION

This item is for informational purposes only. Any action will be at the Board's discretion.

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Guided Pathways

Information Item
Instruction, Research, and Student Affairs
Idaho State Board of Education Meeting
October 19, 2017



Issue

Nationally, only 35 percent graduate with bachelor's degree in four years.¹

In Idaho, only 18.6% of students in the 2012 freshmen cohort graduated in four years (or 100% of time) at the state's public four-year institutions.²

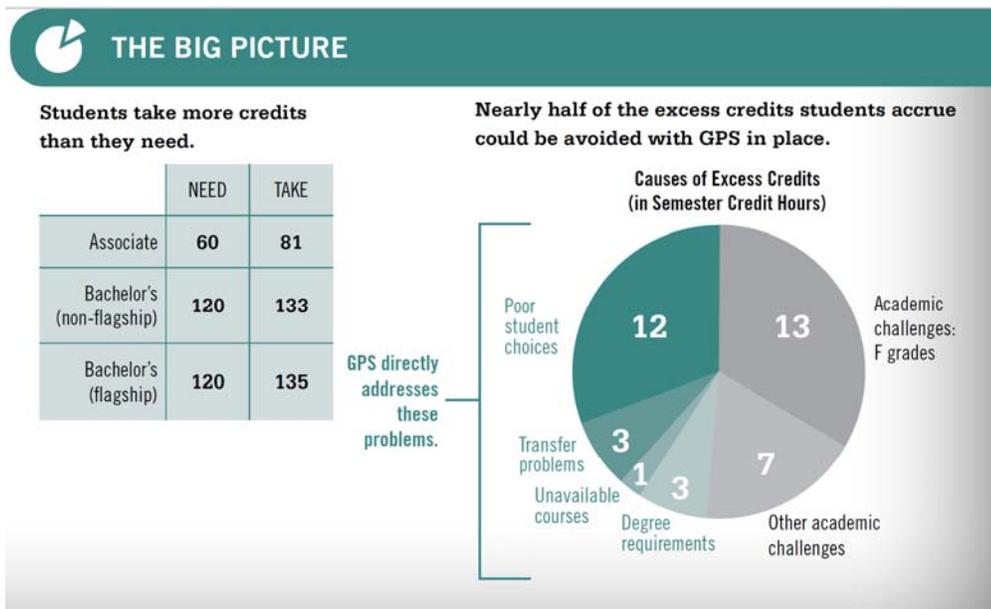
25 percent of full-time associate degree candidates graduated in three years – and only about 10 percent do so in two years.¹

In Idaho, only 7.9% of students in the 2014 freshmen cohort graduated in two years from a state community college.²

¹Complete College America, Guided Pathways to Success: Boosting College Completions (Winter 2012)

²Idaho State Board of Education data (2017)





Source: Complete College America, New Rules: Policies to Strengthen and Scale the Game Changers (Nov. 2016)

Changing Majors

- Each time a student changes majors between the freshmen and sophomore year, it extends their study by a month.
- Each time a change is made after the sophomore year, it adds a semester.

Source: Education Advisory Board, "Better to be right than fast." Promoting Timely Degree Completion, 2016.



What is a Guided Pathway?

- It is a clear roadmap for students to complete their academic programs 'on time', leveraged by timely academic and student support.
- Includes a meta-major concept, whereby students who are not decided on a specific program can explore a field of majors and continue to make degree progress.
- Most effectively facilitated through the use of alert warning/analytics technology and the integration of milestone courses.



Best Practices for Guided Pathways

- Advisors connect with students upon notification a student has registered for a course they do not need, earned an unsatisfactory final grade, or are not performing well in their classes.
- Freshmen and sophomores are required to meet with an advisor each semester to ensure degree progress.
- Articulation (or 2+2) programs offer clarity for students when transferring.
- Need to integrate PLA, CPEL, and adult learning strategies.



Practices for Guided Pathways in Idaho

- **BSU:** Programs align with one of four possible math courses that serve as the mathematics course fulfilling a student's general education math requirements.
- **ISU:** Students entering pre-health profession fields can take any major, but are advised to take a block of coursework that includes the science, math, and Gen Ed requirements that will prepare them for pre-medicine, pre-dentistry, etc. This course grouping leads students through gateway courses.
- **UI:** One of the major tasks for this academic year is to focus on meta-majors, pathways, and structured schedules. The expectation is to have formal recommendations to the campus by the end of the academic year and a plan for integration beginning in 2018-19.



Practices for Guided Pathways in Idaho

North Idaho College

Five focus fields.

Identified gateway courses for many degree programs through a curricular mapping exercise.

Defined three math pathways: STEM, Quantitative Reasoning, and Statistics.

Also developed pathways for Career and Technical Education Programs.



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<p style="text-align: center;">Business Administration & Management</p> <p>Transfer Degrees</p> <ul style="list-style-type: none"> - Business (Business Administration, General Business, Teacher Education) <p>Career-Technical Degrees and Certificates</p> <ul style="list-style-type: none"> - Accounting Assistant - Business Management - Entrepreneurship - Outdoor Recreation Leadership - Culinary Arts - Hospitality Management - Administrative Assistant - Office Specialist/Receptionist - Office Technology - Health Information Fundamentals - Medical Receptionist - Medical Administrative Assistant - Medical Billing Specialist - Paralegal - Virtual Admin Assistant - Administration of Justice - Law Enforcement - Healthcare Computer Technician - Computer Information Technology - Graphic Design - Web Design 	<p style="text-align: center;">Manufacturing & Trades</p> <p>Career-Technical Degrees and Certificates</p> <ul style="list-style-type: none"> - Collision Repair Technology - Automotive Technology - Diesel Technology - Outdoor Power/Rec Vehicle Tech - Aerospace Advanced Manufacturing - Aerospace Composite Technician - Aviation Flight Training - Aviation Maintenance - CAD Tech-Architectural Design - Carpentry & Construction Tech - Construction Management - Heating, Ventilation, Air-Conditioning & Refrigeration - CAD Tech-Mechanical Design - Machining and CNC Technology - Industrial Mechanic/Millwright - Welding Technology 	<p style="text-align: center;">Arts, Communication & Humanities</p> <p>Transfer Degrees</p> <ul style="list-style-type: none"> - Art - Music - Photography - Theatre - English - Humanities - Interdisciplinary Studies - Philosophy - American Sign Language - Modern Languages - Communication - Journalism - Public Relations <p>Career-Technical Degree and Certificates</p> <ul style="list-style-type: none"> - CAD Tech-Architectural Design - Graphic Design - Web Design
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<p style="text-align: center;">Social Sciences & Human Services</p> <p>Transfer Degrees</p> <ul style="list-style-type: none"> - American Indian Studies - Anthropology - History - Psychology - Political Science - Elementary Education - Physical Education - Outdoor Recreational Leadership - Child Development - Business Education - Criminal Justice - Sociology <p>Career-Technical Degrees and Certificates</p> <ul style="list-style-type: none"> - Administration of Justice - Social Work - Pre-Law - Law Enforcement - Paralegal - Fire Service Technology 	<p style="text-align: center;">Science, Technology, Engineering & Mathematics</p> <p>Transfer Degrees</p> <ul style="list-style-type: none"> - Astronomy - Biology - Botany - Chemistry - Environmental Science - Geology - Physics - Forestry/Wildlife/Range Management - Zoology - Pre-Medical Related Fields - Pre-Nutrition - Pre-Physical Therapy - Pre-Veterinary Medicine - Pharmaceutical Manufacturing - Computer Science - Engineering - Mathematics <p>Career-Technical Degrees and Certificates</p> <ul style="list-style-type: none"> - Healthcare Computer Technician - Computer Information Technology - CAD Tech-Mechanical Design - Machining and CNC Technology - Aerospace Advanced Manufacturing 	<p style="text-align: center;">Health Sciences / Health Professions</p> <p>Transfer Degrees</p> <ul style="list-style-type: none"> - Nursing RN - Pre-Medical Related Fields - Pre-Nutrition - Pre-Physical Therapy - Pre-Veterinary Medicine - Physical Education - Pharmaceutical Manufacturing <p>Career-Technical Degrees and Certificates</p> <ul style="list-style-type: none"> - Medical Assistant - Medical Laboratory Technology - Nursing PN - Pharmacy Technology - Physical Therapist Assistant - Radiography Technology - Healthcare Informatics Technician - Health Information Fundamentals - Medical Receptionist - Medical Administrative Assistant - Medical Billing Specialist - Medical Coding - Outdoor Recreation Leadership - Fire Service Technology
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Why is an effective pathway concept important for Idaho?

	Four-Year	Two-Year
Students borrowing federal loans	46.5%	29.75%
Median debt after graduation	\$23,025	\$9,743
Median monthly payment (10 yrs.@ 4.45%)	\$238	\$100
Grad rate (six yrs./three yrs.)	39.25%	26.75%

Source: U.S. Department of Education website (<https://collegescorecard.ed.gov>); OSBE analysis of Idaho public institutions conducted October 6, 2017.



What does this mean?

- Of the nearly 6,500 Idaho students who graduate from high school and enroll full-time at a baccalaureate-granting institution, almost 4,000 will not graduate in six years.
- Using the average grad rates from 2013-2016, only about 1,150 first-time, full-time freshmen (or 16.3%) will graduate within four years from the institution they initially enrolled in.
- Only 9% of FTFT freshmen will graduate within two-years from a state community college.



Impact of Untimely Completion

According to the Purdue-Gallup Index, of students who graduate with over \$25,000 in debt...

43% delay buying a home.

27% delay moving out of their parents' home.

19% delay getting married.

26% delay having children.

Source: Education Advisory Board, "Rising Student Debt Delays Return on Graduation." Promoting Timely Degree Completion, 2016.



Why timely completion is important:

"Studies show that high student debt can result in the deferral of major life events... High student debt can also result in a graduate pursuing a career path he or she would not have taken otherwise... the legacy of high student debt may be lower well-being that lasts for many years after graduates receive their diploma."

Dugan, A., & Kafka, S. "Student Debt Linked to Worse Health and Less Wealth." *Gallup News*, August 7, 2014.



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