

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
FEBRUARY 27, 2014**

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2	IDLA WEB PORTAL	Information Item
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9	PH.D EXPERIMENTAL PSYCHOLOGY-UNIVERSITY OF IDAHO	Approval Item

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INSTRUCTION, RESEARCH AND STUDENT AFFAIRS
FEBRUARY 27, 2014

SUBJECT

Complete College Idaho – General Education Reform update.

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.
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).
February 2013	The Board was given a comprehensive update and overview of the CCI Plan, its five strategies and underlying initiatives.
December 2013	The Board received a CCI Plan update that focused exclusively on Transforming Remediation (Strategy Two)

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 implement many of the initiatives proposed in the Five Strategies underlying the CCI plan. Strategy number Three – Structure for Success – involves the General Education Reform initiative.

General Education (Gen. Ed.) Reform is a critical component of the CCI Plan. The goal of this initiative is to re-map the delivery of general education statewide by creating an outcomes-based core, rather than a discipline-based core. It has major implications for the State's increased focus on demonstrable learning outcomes and how "general education" is articulated statewide across institutions. A statewide framework for General Education promotes transfer by

providing a clearly articulated pathway through General Education that applies to each institution.

This presentation outlines progress to date, the current status of Gen. Ed. Reform efforts, the participants, and how Gen. Ed. Reform relates to some other CCI-related initiatives.

IMPACT

The CCI Plan focuses on improving educational attainment, 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. It 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 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 initiatives for implementing the Board's strategic plan, including the Board's education attainment goals.

STAFF COMMENTS AND RECOMMENDATIONS

Staff will continue to provide the Board with updates on the initiatives – such as Gen. Ed. Reform - that support the Five Strategies in the CCI Plan. 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.

IDAHO DIGITAL LEARNING ACADEMICY (IDLA)

SUBJECT

Presentation on Transfer Web Portal

BACKGROUND/DISCUSSION

The Web Portal is a centralized location where students can learn whether and how almost any course will transfer between Idaho's public postsecondary institutions and how that course will impact their program completion goals. This is a project that was begun under the guidance of the Office of the State Board of Education. This is in conjunction with the Complete College Idaho (CCI) initiative, Structure for Success. IDLA was contracted to work with a taskforce consisting of the Registrars from Idaho's public institutions. The scope of the taskforce is to address transfer issues and agree upon a single infrastructure where students can assess how courses transfer between institutions. In subsequent phases, there will be additional tools available for college students as well as high school students.

This presentation will walk the Board through the Web Portal and provide an overview of the three phases of the project and future development potential.

IMPACT

As a result of this Web Portal, college students will have the ability to know ahead of time if courses they have taken at one institution will transfer across in the same manner or as an elective. Additionally, in future phases, the Web Portal will allow high school and college students to plan their postsecondary courses.

ATTACHMENTS

Attachment 1 – IDLA Presentation - Draft

Page 3

STAFF COMMENTS AND RECOMMENDATIONS

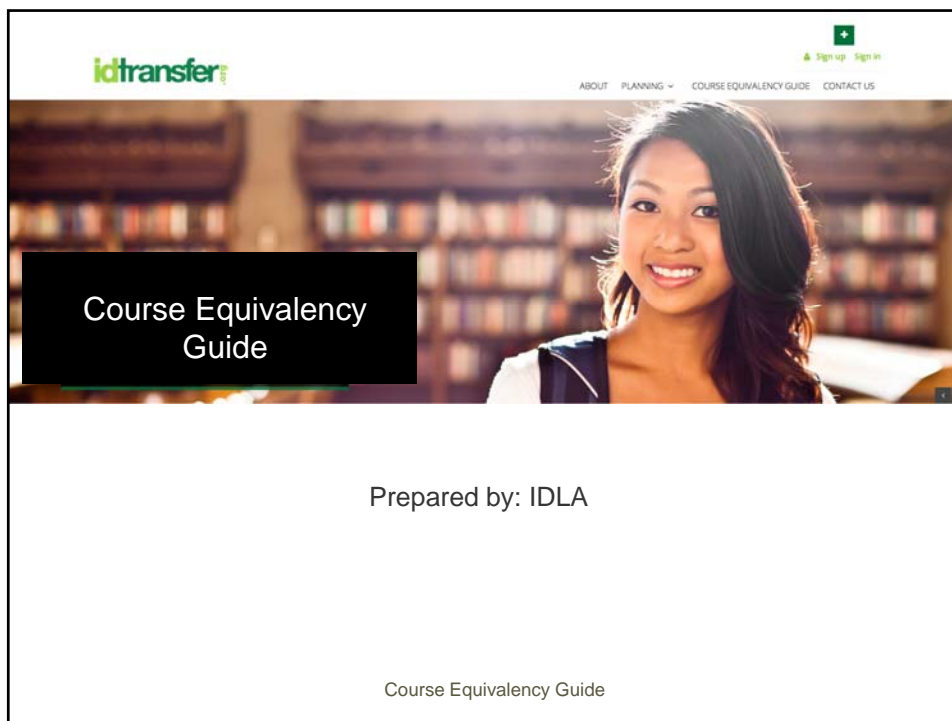
Since the final version of the CCI plan was approved by the Board in June 2012, significant work began in collaboration with the Office of the State Board of Education and the public postsecondary institutions to implement many of the initiatives proposed in the Five Strategies contained within the CCI plan. Strategy number Three – Structure for Success – involves the Web Portal initiative.

The State Board of Education has been concerned with the challenges students face when transferring from one program or university to another. Students find it difficult to gather answers to common transfer-related questions. This is compounded by policies that are interpreted differently by each institution. The Web Portal will serve as a planning tool and information resource.

INSTRUCTION, RESEARCH AND STUDENT AFFAIRS
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BOARD ACTION

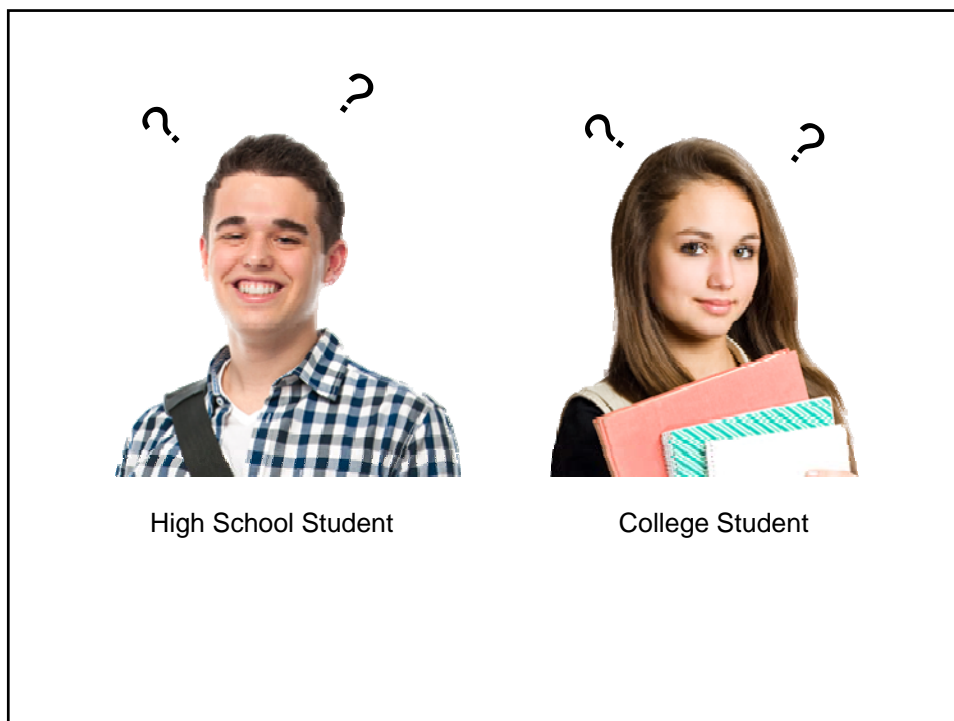
This item is for informational purposes only. Any action will be at the Board's discretion.



Introduction

- Objective
 - Development of website and resources for prospective transferring students
- Outcome
 - Simplification of transfer across all Idaho state sponsored post-secondary institutions

A portrait of a smiling young man with short dark hair, wearing a blue polo shirt, standing in a library with bookshelves in the background.

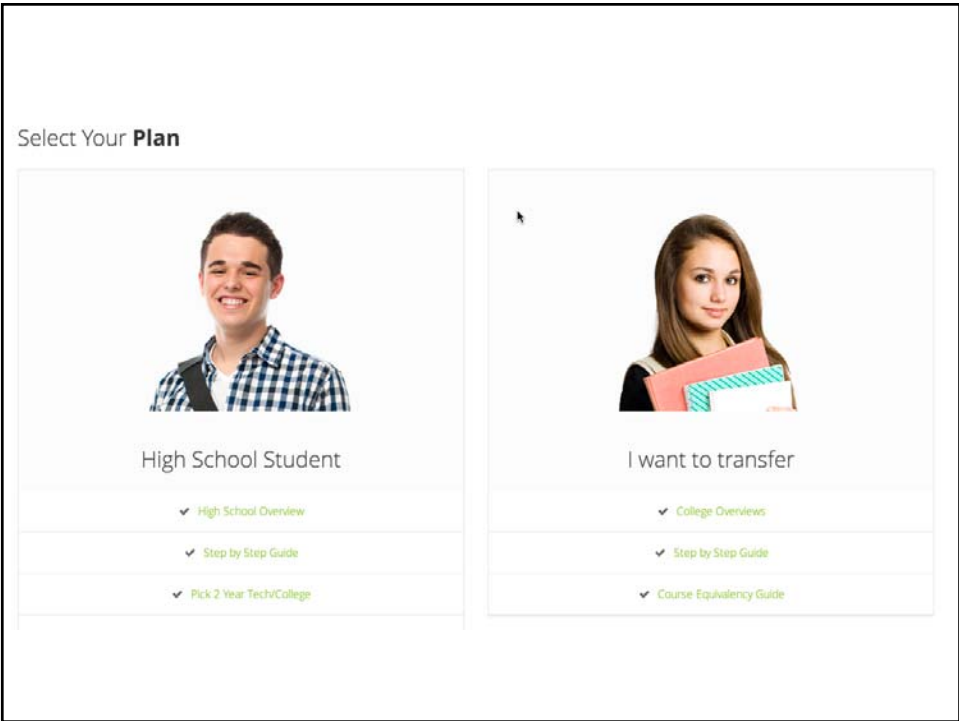
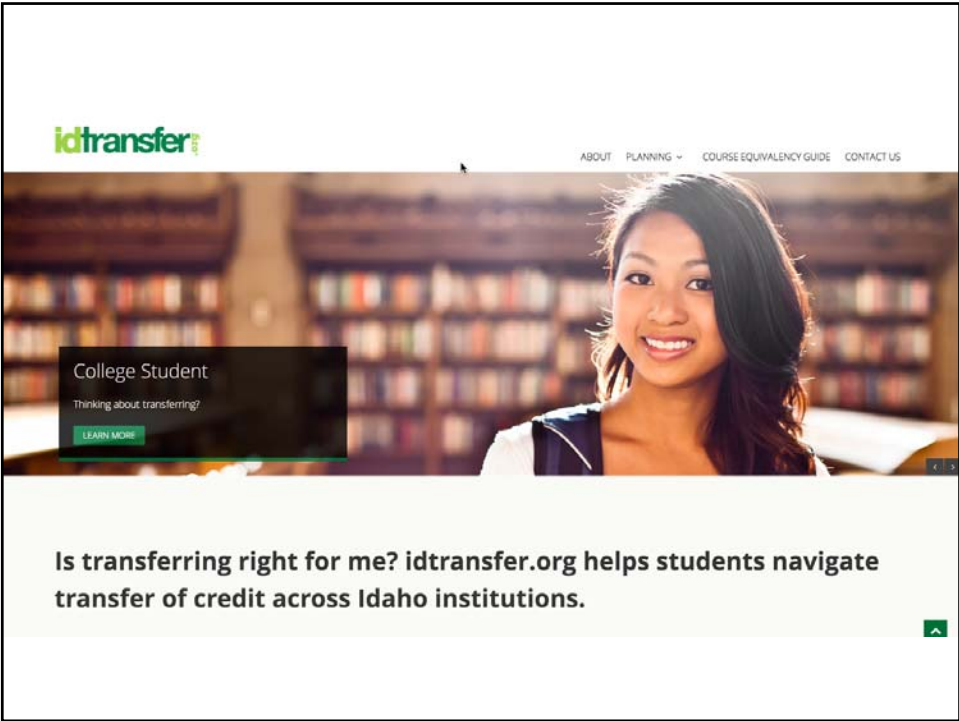


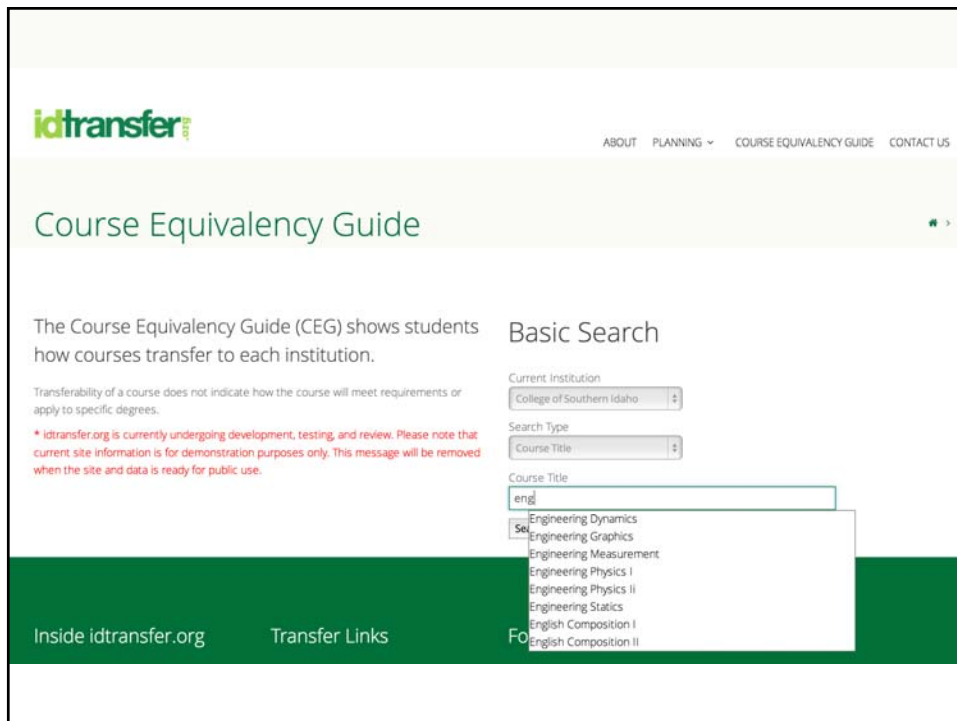
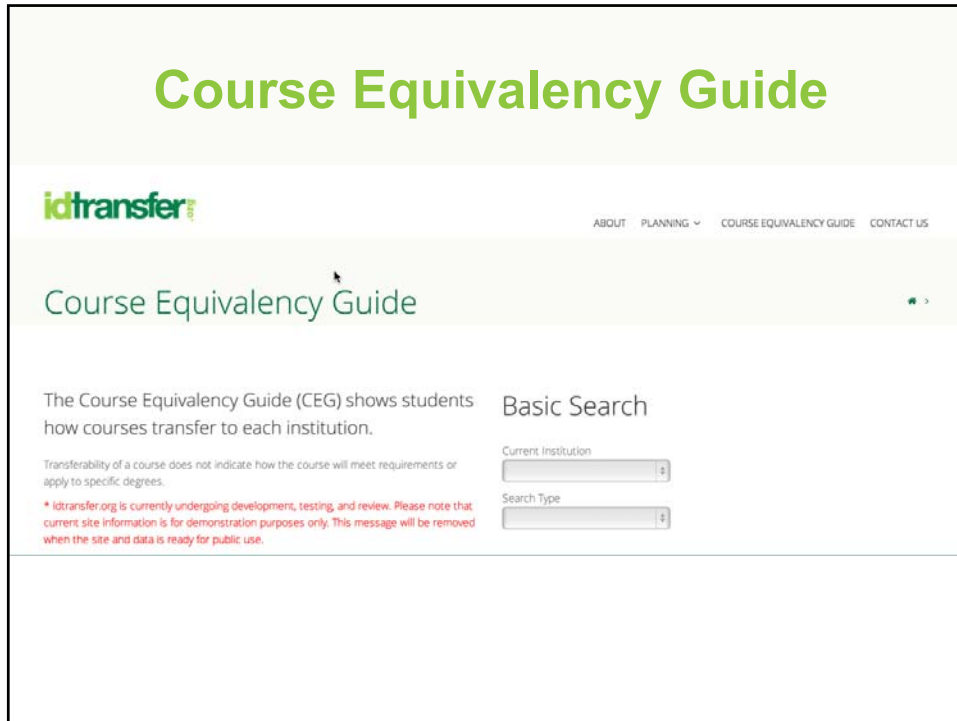
Project Overview

● Phase 1 Deliverables









- Draft Processes for Data Flow and Maintenance
- Initial Data Load of Course Equivalency Guide
- Beta of Idaho Transfer Website for Public Review







Course Equivalency Guide

Institution	Course	Title	Credits	Notes
 Idaho State University	MATH 1175	Calculus II	3	
 College of Southern Idaho	MATH 175	Calculus II	3	
 Lewis-Clark State University	MATH 175	Calculus II	3	
 North Idaho College	MATH 175	Analytic Geometry and Calc II	3	
 Boise State University	MATH 175	Calculus II	3	
 University of Idaho	MATH 175	Analytic Geometry/Calc II	4	
 CWI College of Western Idaho	Unknown - See Institution Site			
 ETC Eastern Idaho Technical College	Unknown - See Institution Site			

Project Overview

- Phase 1
 - [Website](#)
 - [Transfer Information](#)
- Phase 2
 - [Dual Credit](#)
 - [GEM Course Matrix](#)
 - [Public Release / Marketing](#)
- Phase 3
 - [Additional Transfer Tools](#)



Progress Report

- Design and Flow
 - Responsive Design on website for Mobile compatibility
- Collaboration
 - Monthly meeting with Registrars
 - Weekly design and logic reviews
- Logic Work
 - Matrices and Crosswalks of General Ed Requirements across Idaho
 - Matrices of existing transfer agreements across Idaho
 - Database design
 - Reporting and Analytics

Course Equivalency Guide



[ABOUT](#) [PLANNING](#) [COURSE EQUIVALENCY GUIDE](#) [CONTACT US](#)

About idtransfer.org

idtransfer.org is a statewide collaborative project to help students navigate their higher education.

idtransfer.org is mad possible through the hard work and dedication of:



Current Status

- Next steps
 - Test final changes
 - Feedback on V5
 - Load testing and Reporting

Questions



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INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
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SUBJECT

Board Policy III.G. Program Approval and Discontinuance- First Reading

REFERENCE

March 2005	The Board approved the first reading of proposed amendments to Board Policy III.G that would simplify language, clarify roles for approval, and clearly define requirements for routine changes.
April 2005	The Board approved the second reading of proposed amendments to Board Policy III.G that would simplify language, clarify roles for approval, and clearly define requirements for routine changes.
June 2007	The Board approved the first reading of proposed amendments to Board Policy III.G.
August 2007	The Board approved the second reading of proposed amendments to Board Policy III.G that would clearly define PTE's program approval procedures.
June 19, 2013	The Board supported moving forward with policy amendments to III.G that would streamline and simplify procedures for program review and approval.
December 2013	The Board approved the second reading of Board Policy III.G.

BACKGROUND/DISCUSSION

The purpose of Board Policy III.G, Postsecondary Program Approval and Discontinuance is to provide Idaho's public institutions with procedures for the development, approval, and discontinuation of academic and professional-technical programs.

During the implementation of policy changes approved by the Board in December 2013, the State Division of Professional-Technical Education (PTE) identified areas of policy that may not be as clear regarding proposal submission and modification of PTE programs. This was not realized until after the second reading was approved. While clarifying language would be minor, required language changes were substantial enough to warrant additional changes to Board Policy, requiring two readings.

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IMPACT

Approval of proposed amendments will provide institutions and staff the necessary guidance for processing PTE programs.

ATTACHMENTS

Attachment 1 – Proposed Amendments to Board Policy III.G, Page 3
Postsecondary Program Approval and Discontinuance

STAFF COMMENTS AND RECOMMENDATIONS

Proposed amendments to Board Policy III.G will clarify requirements for new PTE programs and modifications to existing programs. Amendments also include striking out language that was redundant for name or title changes to programs and instructional units. Structural changes were also made so that provisions in policy for PTE programs flow and align with the requirements for academic programs.

Board staff and Council on Academic Affairs and Programs recommend approval as presented.

BOARD ACTION

I move to approve the first reading of proposed amendments to Board Policy III.G, Postsecondary Program Approval and Discontinuance as submitted in Attachment 1.

Moved by _____ Seconded by _____ Carried Yes _____ No _____

Idaho State Board of Education
GOVERNING POLICIES AND PROCEDURES

ATTACHMENT 1

SECTION: III. POSTSECONDARY AFFAIRS

April 2014

SUBSECTION: G. Postsecondary Program Approval and Discontinuance

The Board is responsible for the establishment, maintenance, and general supervision of policies and procedures governing the academic and program affairs of the institutions. This subsection shall apply to the University of Idaho, Idaho State University, Boise State University, Lewis-Clark State College, Eastern Idaho Technical College, North Idaho College, the College of Southern Idaho, and the College of Western Idaho.

The Board affirms that a major percentage of instructional and professional-technical program planning, assessment, and review rests with the institutions, both in theory and in practice. In addition, program planning shall be a collaborative process which includes the Board, Board staff, the institutions, faculty, external advisory groups, regional and specialized accreditation bodies, and other stakeholders pursuant to Board Policy Section III.Z. However, the Board has final authority and responsibility for program approval and how a program and the curriculum relate to other institutions, the system as a whole, and the educational and workforce needs of the state. All postsecondary program approvals will include identifiable learning outcomes and competency measurements for graduates of their programs as defined in Board Policy Section III.X.

1. Classifications and Definitions

- a. Instructional Unit(s) shall mean departments, institutes, centers, divisions, schools, colleges, campuses, branch campuses, and research units (e.g. extension centers) that are responsible for academic programs.
- b. Administrative Unit(s) shall mean offices, centers, bureaus, or institutes that are responsible for carrying out administrative functions, research, or public service as their primary purpose, and are not responsible for programs.
- c. Academic Program(s) shall mean a systematic, usually sequential, grouping of courses forming a considerable part, or all, of the requirements (i.e., curricula) that provides the student with the knowledge and competencies required for an academic certificate, an associate, baccalaureate, master's, specialist, or doctoral degree as defined in Board Policy Section III.E. A course or series of courses leading to an Academic Certificate of Completion is not considered an academic program for approval purposes.
- d. Major(s) shall mean a principal field of academic specialization that usually accounts for 25 to 50 percent of the total degree requirements. The concentration of coursework in a subject-matter major serves to distinguish one program from others leading to the same or a similar degree.
- e. Academic Program Components shall include options, minors, emphases, tracks, concentrations, specializations, and cognates as defined by each institution.

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- f. Professional-Technical Program(s) shall mean a sequence or aggregation of competencies that are derived from industry-endorsed outcome standards and directly related to preparation for employment in occupations requiring professional-technical certificates or an associate of applied science degree as defined in Board Policy Section III.E. These programs must include competency-based applied learning that contributes to an individual's technical skills, academic knowledge, higher-order reasoning, and problem-solving skills. A course or series of courses leading to a technical certificate of completion is not considered a program for approval purposes.
- g. Professional-Technical Program Components shall include option(s); which shall mean alternative instructional paths to fields of specialized employment, consisting of more than one specialized course, and may have a separate advisory committee.

2. Roles and Responsibilities

- a. Institutions shall establish internal program review processes and procedures. Institutions shall follow their internal review processes and procedures pursuant to Board Policy Section III.H. prior to forwarding proposals to the Board.
- b. Program proposals shall be reviewed by the Council on Academic Affairs and Programs (CAAP). CAAP shall make recommendations to the Instruction, Research, and Student Affairs (IRSA) committee on instructional programmatic matters and related policy issues.
- c. The Idaho Division of Professional-Technical Education and the Professional Standards Commission shall review and make recommendations as appropriate to IRSA and/or the Board on instructional programmatic matters and policy issues related to their roles and responsibilities.

3. Academic Program Proposal Submission and Approval Procedures

Subsequent to institutional review and consistent with institutional policies, all requests requiring Board or Executive Director approval will be submitted by the institution to Board staff as a proposal in accordance with a template developed by the Board's Chief Academic Officer. Each proposal shall be reviewed by CAAP within 30 days from receipt of said proposal. For purposes of this Section, financial impact shall mean the total financial resources, regardless of funding source, needed to support personnel costs, operating expenditures, capital outlay, capital facilities construction or major renovation, and indirect costs that are generated as a direct result of the new instructional program or modification to an existing program. Proposals that require new state appropriations shall also be included in the annual budget request of the institution for Board approval.

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a. Branch Campuses

The establishment of a new branch campus or change in location geographically apart from the main campus where the institution offers at least 50% of an education program shall require Board approval regardless of fiscal impact. This subsection of policy excludes community colleges.

b. Academic Programs

- i. All new, modification, and/or discontinuation of academic program majors certificates, associates, bachelors, masters, doctorates, instructional units, administrative units, expansions, consolidations, including the transition of existing programs to an on-line format requires completion of the program proposal prior to implementation.
 - 1) The Board shall approve, prior to implementation, any new, modification, and/or discontinuation of academic or professional-technical programs, with a financial impact of \$250,000 or more per fiscal year.
 - 2) The Executive Director shall approve, prior to implementation, any new, modification, and/or discontinuation of academic or professional-technical programs, with a financial impact of less than \$250,000 per fiscal year.
 - 3) The Board shall approve, prior to implementation, any new, modification, and/or discontinuation of all graduate academic programs leading to a master's, specialist, or doctoral degree regardless of fiscal impact.
 - 4) The Executive Director may refer any proposal to the Board or subcommittee of the Board for review and action.
- ii. Modifications to existing programs shall include, but not be limited to, the following:
 - 1) Converting one program option into a stand-alone program.
 - 2) Consolidating an existing program to create one or more new programs.
 - 3) Adding a degree program not already approved by the Board.
 - 4) Adding courses that represent a significant departure from existing program offerings or method of delivery from those already evaluated and approved by the Board.
 - 5) Transitioning of existing programs to an on-line format.

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- 6) Changes from clock hours to credit hours or vice-versa, or substantial increase or decrease in the length of a program or number of clock or credit hours awarded for successful completion of program.
 - iii. All doctoral program proposals shall require an external peer review. The external peer-review panel shall consist of at least two (2) members and will be selected by the Board's Chief Academic Officer and the requesting institution's Provost. External reviewers shall not be affiliated with a public Idaho institution. The review shall consist of a paper and on-site peer review, followed by the issuance of a report and recommendations by the panel. Each institution shall provide the panel with a template developed by the Board's Chief Academic Officer. The peer reviewer's report and recommendations will be a significant factor of the Board's evaluation of the program.
 - iv. New educator preparation programs require concurrent submission of the program proposal to the Board office and the Professional Standards Commission (PSC) prior to implementation. The PSC ensures that programs meet the Idaho standards for certification. The Board office ensures that the program proposal is consistent with the program approval process. meets the standards approved by the Board and established in rule.
- c. Academic Program Components

Modification of existing academic program components may or may not require a proposal. For academic program components that require a proposal, subsection 4.b.i. of this policy applies.

New, modification, and/or discontinuation of academic program components; program name or title changes to degrees, departments, divisions, colleges, or centers; or changes to Classification of Instructional Programs (CIP) codes require a formal letter notifying the Office of the State Board of Education prior to implementation of such changes. If the change is judged to be consistent with academic program components as provided in this section, Board staff will notify the institution in writing that they may proceed with said changes. If the change is determined to be inconsistent with academic program components or the CIP code change represents a significant departure from existing offerings, Board staff will notify the institution in writing and they will be required to complete a program proposal.

- i. Changes to program names or degree titles related to Statewide Program Responsibilities as provided in Board Policy III.Z., require a proposal as

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specified in subsection [43.b.i](#) of this policy, and shall be reviewed and approved by the Board.

- ii. Non-substantive changes do not require notification or approval. These shall include minor curriculum changes; minor credit changes in a program; descriptions of individual courses; other routine catalog changes; and do not require additional funding to implement. ~~Institutions must provide prior notification of a name or title change for programs, degrees, departments, divisions, colleges, or centers via a letter to the Office of the State Board of Education.~~

4. Professional-Technical Programs

~~New, modification, and/or discontinuation of professional-technical programs, instructional units, expansions, consolidations, and transition of existing programs to an on-line format require completion of the program proposal prior to implementation. Professional-technical program proposals shall be forwarded to the State Administrator of the Division of Professional-technical Education for review and recommendation. All requests requiring Board or Executive Director approval will be submitted by the institution to the Division of Professional-Technical Education as a proposal in accordance with a template developed by Board staff. Each proposal shall be reviewed within 30 days from receipt of said proposal. The State Administrator shall forward the request to CAAP for its review and recommendation. Once CAAP and/or State administrator recommends approval, the proposal shall be forwarded, along with recommendations, to the Board for action.~~ Requests that require new state appropriations shall be included in the annual budget request of the State Division of Professional-Technical Education for Board approval.

For purposes of this Section, financial impact shall mean the total financial resources, regardless of funding source, needed to support personnel costs, operating expenditures, capital outlay, capital facilities construction or major renovation, and indirect costs that are generated as a direct result of the new instructional program or modification to an existing program. Proposals that require new state appropriations shall also be included in the annual budget request of the institution for Board approval.

a. Professional-Technical Programs

- i. All new, modification, and/or discontinuation of professional-technical degrees, instructional units, expansions, consolidations, including the transition of existing programs to an on-line format, require completion of the program proposal prior to implementation. Professional-Technical program

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proposals shall be forwarded to the State Administrator of the Division of Professional-Technical Education for review and recommendation. The State Administrator shall forward the request to CAAP for its review and recommendation. Once CAAP and/or State Administrator recommends approval, the proposal shall be forwarded, along with recommendations, to the Board for action.

~~a.~~ 1) The Board shall approve, prior to implementation, any new, modification, and/or discontinuation of professional-technical programs with a financial impact of \$250,000 or more per fiscal year.

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~~b.~~ 2) The Executive Director shall approve, prior to implementation, any new, modification, and/or discontinuation of professional-technical programs with a financial impact of less than \$250,000 per fiscal year.

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~~c.~~ 3) The Executive Director may refer any proposal to the Board or subcommittee of the Board for review and action.

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ii. Modifications to existing programs shall include, but not be limited to, the following:

- 1) Converting one program option into a stand-alone program.
- 2) Consolidating an existing program to create one or more new programs.
- 3) Adding a certificate or degree program not already approved by the Board.
- 4) Adding courses that represent a significant departure from existing program offerings or method of delivery from those already evaluated and approved by the Board.
- 5) Transitioning of existing programs to an on-line format.
- 6) Changes from clock hours to credit hours or vice-versa, or substantial increase or decrease in the length of a program or number of clock or credit hours awarded for successful completion of program.

b. Professional-Technical Programs Components

Modification of existing professional-technical program components may or may not require a proposal. For professional-technical program components that require a proposal, subsection 4.a.i of this policy applies.

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New, modification, and/or discontinuation of professional-technical options for existing programs; changes to a program's status to inactive, changes to CIP codes, or name title changes (e.g., programs, degrees, certificates, departments, divisions, colleges, or centers) require a formal letter notifying the State

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Administrator prior to implementation of such changes. If the change is judged to be consistent with program components as provided in this section, the State Administrator will notify the institution in writing that they may proceed with said changes. If the change is determined to be inconsistent with definition of program components, the State Administrator will notify the institution in writing and they will be required to complete the program proposal.

i. Non-substantive changes to courses within a current program (e.g., course number, title, description, addition, deletion, and/or credit hours) must be submitted to the State Division of Professional-Technical Education.

~~ii. Changes to a program's status to inactive, or name title changes (e.g., programs, degrees, certificates, departments, divisions, colleges, or centers) require a formal letter notifying the State Administrator prior to implementation of such changes. If the change is judged to be consistent with program components as provided in this section, the State Administrator will notify the institution in writing that they may proceed with said changes. If the change is determined to be inconsistent with definition of program components, the State Administrator will notify the institution in writing and they will be required to complete the program proposal.~~

5. Sunset Clause for Program Approval

Board or Executive Director approval of academic and professional-technical education programs shall include a three-year sunset clause. A program not implemented within the three years from the date of its approval shall be resubmitted by the institution to the Board or Executive Director for approval. Institutions shall submit a new proposal to include a justification for the renewal.

6. Academic and Professional-Technical Program Proposal Denial Procedures

- a. The Executive Director shall act on any request within thirty (30) days.
- b. If the Executive Director denies the proposal he/she shall provide specific reasons in writing. The institution shall have thirty (30) days in which to address the issue(s) for denial of the proposal. The Executive Director has ten (10) working days after the receipt of the institution's response to re-consider the denial. If the Executive Director denies the request after re-consideration, the institution may send its request and the supporting documents related to the denial to the Board for final reconsideration.

7. Program Discontinuance

The primary considerations for instructional program discontinuance will be whether

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the instructional program is an effective use of the institution's resources, no longer serves student or industry needs, or when programs no longer have sufficient students to warrant its allocation. This policy does not apply to instructional programs that are discontinued as a result of financial exigency as defined and discussed in Board Policy Section II.N. of these policies.

For professional-technical program discontinuance, institutions shall adhere to criteria and procedures as provided in IDAPA 55.01.02.

a. Students

Institutions shall develop policies, in accordance with the Northwest Commission on Colleges and Universities Accreditation Handbook, which requires institutions to make appropriate arrangements for enrolled students to complete affected programs in a timely manner with minimum interruptions.

b. Employees

i. Any faculty or staff members whose employment the institution seeks to terminate due to the discontinuance of a program based upon Board Policy Section III.G. shall be entitled to the following procedures:

- 1) Non-classified contract employees, including non-tenured faculty, may be dismissed or have their contracts terminated or non-renewed in accordance with Board and institutional policies.
- 2) State of Idaho classified employees shall be subject to layoff as provided in the rules of the Division of Human Resources. Classified employees of the University of Idaho shall be subject to layoff as provided in the policies of the University of Idaho.
- 3) Tenured faculty will be notified in writing that the institution intends to dismiss them as a result of program discontinuance. This notice shall be given at least twelve (12) months prior to the effective date of termination.
- 4) An employee who receives a notice of termination as a result of program discontinuance is entitled to use the internal grievance procedures of the institution. The sole basis to contest a dismissal following a program closure is in compliance with these policies.

8. Reporting

a. The Office of the State Board of Education shall report quarterly to the State Board of Education all program approvals and discontinuations approved by the Executive Director.

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- b. All graduate level programs approved by the State Board of Education require a report on the program's progress in accordance with a timeframe and template developed by the Board's Chief Academic Officer.
- c. Institutions shall notify the Board office in writing when an approved program has been officially implemented.

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SUBJECT

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

BACKGROUND / DISCUSSION

In June 2012 the Board approved the Complete College Idaho (CCI) Plan. The plan outlines initiatives for implementing the Board's Strategic Plan and College Completion goals. One of those key initiatives includes restructuring general education under the Structure for Success strategy of the CCI plan. The goal of this initiative is to re-map the delivery of general education statewide by creating an outcomes-based core, rather than a discipline-based core. This new approach to program design and assessment addresses the needs of stakeholders and creates stronger general education alignment between postsecondary institutions.

Board staff pulsed together a taskforce consisting of key educational leaders from all eight public institutions and charged them with evaluating the Association of American Colleges and Universities (AAC&U) framework and identifying any concerns regarding transferability due to changes in delivery of general education at Boise State University and the University of Idaho. The State General Education Taskforce held numerous face-to-face meetings and work sessions and provided staff with recommendations derived from the AAC&U framework.

On November 1, 2012, the Office of the State Board of Education held an event to kick-off the general education reform effort. Disciplinary groups were identified and charged with evaluating the AAC&U Essential Learning Outcomes and associated Valid Assessment of Learning in Undergraduate Education (VALUE) Rubrics to provide recommendations on the appropriate Student Learning Outcomes associated with their individual discipline. In early December, discipline groups submitted their draft rubrics and recommendations for common statewide competencies in their respective discipline area to the State General Education taskforce.

The taskforce met on December 5-6, 2013 to review the recommendations forwarded by the discipline groups and have crafted a new proposed policy that would provide guidance, coverage, and alignment for General Education statewide. The new policy will provide a common general education framework that will establish statewide General Education Matriculation (GEM) competencies that will guide institutions' determination of courses that will be designated as GEM courses; establish shared rubrics that guide course/general education program assessment; and create a transparent and seamless transfer experience for undergraduate students.

IMPACT

Approval of the proposed new policy will allow for restructuring the delivery of general education statewide and provide a common general education

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framework, which will facilitate seamless transfer between all of Idaho's public institutions.

ATTACHMENTS

Attachment 1 – Board policy III.N, General Education – 1st Reading Page 3

STAFF COMMENTS AND RECOMMENDATIONS

The proposed new policy was shared with Council on Academic Affairs and Programs (CAAP) in mid-December. Provosts were asked to vet the policy with their Registrars, Curriculum and General Education Committees, and other appropriate staff on campus and compile comments and concerns. A final draft was shared with CAAP at their January 23, 2014 meeting, which produced more feedback and revisions. Staff notes that institutions continue to discuss the policy with their faculty and general education committees; additional feedback may require further revisions.

The new policy proposes to establish ongoing responsibilities for the faculty discipline groups, who will ensure consistency and relevance of General Education competencies related to their discipline. Additionally, policy will also formally establish the State General Education Committee, who will be responsible for reviewing competencies and rubrics for institutionally-designated General Education categories and ensure transferability.

In the development of this new policy, outdated language regarding general education was taken from Policy III.V (Articulation and Transfer) and incorporated and updated here. Specifically, subsections 2 and 3 were removed from III.V. This will be reflected when a draft of Policy III.V is presented for 1st Reading at the April 2014 Board Meeting.

Board staff and CAAP recommend approval of proposed new Board Policy III.N, General Education as presented.

BOARD ACTION

I move to approve the first reading of proposed new Board Policy III.N, General Education as presented.

Moved by _____ Seconded by _____ Carried Yes _____ No _____

Idaho State Board of Education
GOVERNING POLICIES AND PROCEDURES
SECTION: III. POSTSECONDARY AFFAIRS
N. Statewide General Education

Attachment 1

April 2014

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 competencies prepare students to use multiple strategies in an integrative manner, to explore, critically analyze, and creatively address real-world issues and challenges. 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 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 shall be:
 - a. The General Education curricula must be thirty-six (36) credits.
 - b. Twenty-seven (27) to thirty (30) credits of the General Education curricula (dependent upon Written Communication placement) must fit within the *General Education Matriculation* (GEM) competency areas defined in subsection 4.
 - c. Six (6) to nine (9) credits of the General Education curricula are reserved for institutions to create competency areas that address the specific mission and goals of the institution. Courses in these competency areas shall have learning outcomes linked to Association of American Colleges and Universities (AAC&U) Essential Learning Outcomes.
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) General Education Matriculation (GEM) competency areas. The first two emphasize *integrative skills* intended to inform the learning process throughout General Education and major. The final four 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

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- 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.
 - b. Oral Communication: Upon completion of a course in this category, students are able to demonstrate at least five (5) of the following competencies.
 - i. Research, discover, and develop information resources and structure verbal messages to increase knowledge and understanding.
 - ii. Research, discover, and develop evidence-based reasoning and persuasive appeals for influencing attitudes, values, beliefs, or behaviors.
 - iii. Understand interpersonal rules, roles, and strategies in varied contexts.
 - iv. Effectively listen and adapt verbal messages to the personal, ideological, and emotional perspectives of the audience.
 - v. Employ effective verbal and nonverbal behaviors that support communication goals.
 - vi. Effectively recognize and critically evaluate the reasoning, evidence, and communication strategies of self and others.
 - 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.

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- 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.
 - 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.

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5. General Education Requirement

- a. This subsection applies to Associate of Arts, Associate of Science, and Baccalaureate degrees.

General Education curricula must reflect the following credit distribution:

Competency Area	Minimum Credits
Written Communication	3 to 6 (depending on placement)
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 Competency Areas	6 to 9 (depending on Written Communication placement)

- 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 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 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
Institutionally-Designated Competency Areas	3

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. Those courses are transferable as meeting the GEM requirements at any Idaho public institution. Faculty discipline groups representing all public postsecondary institutions shall ensure consistency and relevance of General Education competencies related to their

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discipline.

- b. The State General Education Committee (The Committee): The Committee, established by the Board, shall consist of a representative from each of the eight public postsecondary institutions. To ensure transferability, the Committee reviews competencies and rubrics for institutionally-designated General Education categories; final approval resides with the Board. Committee membership and duties are prescribed by the Board.
- c. The eight (8) public postsecondary institutions shall identify all GEM courses in their curricula and identify them on the state transfer web portal.

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SUBJECT

Board Policy III.Y. Advanced Opportunities – First Reading

REFERENCE

April 2012 Board approved the first reading of amendments to Board Policy III.Y.

June 2012 Board approved the second reading of amendments to Board Policy III.Y.

APPLICABLE STATUTES, RULE OR POLICY

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

BACKGROUND/DISCUSSION

Over the last year, the Division of Professional-Technical Education (PTE), in conjunction with a stakeholder group made up of representatives from the technical colleges and industry, have evaluated Idaho's TechPrep Program and is proposing amendments to the program. The "traditional" TechPrep Program contained in Board policy allows any secondary professional-technical student the opportunity to participate in a TechPrep Program that allows them to receive postsecondary credits at the conclusion of the program when they matriculate to a postsecondary institution. The TechPrep Programs must have an approved articulation agreement between the high school and the postsecondary institution. This agreement outlines how the credits will transfer at the conclusion of the program. The proposed amendments would allow for two pathways of earning technical credits. The first, Technical Competency Credit would be similar to the current process for TechPrep. The second, Technical Dual Credit would mirror the current dual credit options.

Technical Competency Credit students would not be considered postsecondary students and do not earn credits until they matriculate to a postsecondary institution. The credits earned would be based on successfully obtaining the program competencies. Technical Dual Credit students, similar to Academic Dual Credits students, would be awarded at the successful completion of each course, since students would be dually enrolled as secondary students and postsecondary students. Due to the current funding structure for PTE programs the Technical Dual Credit, fees would be based on the current Workforce Training Fee described in Board Policy IV.R.3.a. This is the fee current TechPrep students are charged for transcribing TechPrep credits.

The proposed amendments include minimum standards for both programs. The new Technical Dual Credit standards are based on the current dual credit standards with changes made to align the process with the processes used by the technical colleges for other technical programs. The Technical Competency Credit standards are based on the current TechPrep Program standards. Both standards include requirements for program administration, evaluation, and student advising, as well as requirements that the course content is comparable to professional-technical courses at the technical colleges and that the students

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are assessed based on the same standards as those taking postsecondary technical courses at the technical colleges.

IMPACT

Proposed amendments would allow secondary students two options for earning postsecondary credits through the technical college system.

ATTACHMENTS

Attachment 1 – Board Policy III.Y. Certificates and Degrees –
First Reading

Page 3

STAFF COMMENTS AND RECOMMENDATIONS

The Council on Academic Affairs and Programs (CAAP) was notified that PTE was proposing changes to III.Y Advanced Opportunities at their December meeting and was provided a draft of the proposed policy amendments at their February meeting. CAAP did not have any additional changes or recommendations to bring forward at this time.

The Dual Credit Coordinators at some of the postsecondary institutions expressed concern over confusion between the “traditional” dual credit options and the technical dual credit options. The proposed amendments include an amendment to change the name of current dual credit options to “academic dual credit.” The Dual Credit Coordinators had proposed calling the Technical Dual Credit options Technical Career Specialty Credit, however, Chapter 51, Title 33, Idaho code states that a student may take courses from a postsecondary institution for postsecondary credit, secondary credit, or dual credit, indicating that when postsecondary and secondary credit is earned for a single course, it is “dual credit.” Therefore, the technical dual credit, regardless of name, would still fall under the definition of dual credit and the Technical Career Specialty Credit name might also cause confusion for parents, students, and teachers, as well as have implications to state reporting requirements. Feedback received from PTE staff and technical college staff was in favor of the Technical Dual Credit designation.

The Board policy outlines the process and minimum standards for the various Advanced Opportunity options available to secondary students. It does not dictate how the secondary schools or postsecondary institutions internally manage the processes.

Staff recommends approval.

BOARD ACTION

I move to approve the first reading of proposed amendments to Board policy III.Y. Advanced Opportunities 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: Y. Advanced Opportunities

~~June 2012~~February 2014

1. Coverage

Boise State University, Idaho State University, the University of Idaho, Lewis-Clark State College, Eastern Idaho Technical College, North Idaho College, the College of Southern Idaho, and the College of Western Idaho are covered by these policies. Post-secondary programs intended for transfer come under the purview of the Board.

2. Purpose

The State Board of Education has made a commitment to improve the educational opportunities to Idaho citizens by creating a seamless system. To this end, the Board has instructed its postsecondary institutions to provide educational programs and training to their respective service regions, to support and enhance regional and statewide economic development, and to collaborate with the public elementary and secondary schools. In addition to the Board's desire to prepare secondary graduates for postsecondary programs, the Board is also addressing advanced opportunities programs for qualified secondary students. These programs have the potential for reducing the overall costs of secondary and postsecondary programs to the students and institutions.

The primary intent of the Board is to develop a policy for advanced opportunities programs for secondary students which would:

- a. Enhance their postsecondary goals;
- b. Reduce duplication and provide for an easy transition between secondary and postsecondary education; and
- c. Reduce the overall cost of educational services and training.

3. Definitions

There are various advanced opportunities programs students may access to receive post-secondary credit for education completed while enrolled in the secondary system. Examples include Advanced Placement® (AP), dual credit courses that are taken either in the high school or on the college campus, ~~Tech-Professional-Technical~~ Advanced Learning (PTAL), and International Baccalaureate programs. For the purpose of this policy the State Board of Education recognizes four different types of advanced opportunities programs depending upon the delivery site and faculty. They are: Advanced Placement®, dual credit, ~~Tech-Professional-Technical~~ Advanced Learning (PTAL), and the International Baccalaureate program.

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a. Advanced Placement® (AP)

The Advanced Placement® Program is administered by the College Board. AP students may take one or more college level courses in a variety of subjects. AP courses are not tied to a specific college curriculum, but rather follow national College Board curricula. While taking the AP exam is optional, students may earn college credit by scoring well on the national AP exams. It is up to the discretion of the individual colleges to accept the scores from the AP exams to award college credit or advanced standing.

b. Academic Dual Credit

Dual credit allows high school students to simultaneously earn credit toward a high school diploma and a postsecondary degree or certificate. Postsecondary institutions work closely with high schools to deliver college courses that are identical to those offered on the college campus. Credits earned in a dual credit class become part of the student's permanent college record. Students may enroll in dual credit programs taught at the high school or on the college campus.

c. ~~Tech Prep~~ Professional-Technical Advanced Learning (PTAL)

PTAL is an advanced opportunity that provides a head start on a technical certificate or an associate of applied science degree. PTAL allows secondary professional-technical students the opportunity to simultaneously earn secondary and postsecondary technical credits for programs delivered through the Idaho Technical College System. Credits earned in a PTAL course may become part of a student's permanent college record or be escrowed for future use. Professional-technical education programs are delivered through comprehensive high schools, professional-technical schools, and technical colleges. Tech Prep allows secondary professional-technical students the opportunity to simultaneously earn secondary and postsecondary technical credits. A Tech Prep course must have an approved articulation agreement between the high school and a technical college. Tech Prep is an advanced learning opportunity that provides a head start on a technical certificate or an associate of applied science degree.

d. International Baccalaureate (IB)

Administered by the International Baccalaureate Organization, the IB program provides a comprehensive liberal arts course of study for students in their junior and senior years of high school. IB students take end-of-course exams that may qualify for college-credit. Successful completion of the full course of study leads to an IB diploma.

4. Idaho Programs Standards for Advanced Opportunities Programs

All advanced opportunities programs in the state of Idaho shall be developed and managed in accordance with these standards which were designed to help school districts, colleges and universities plan, implement, and evaluate high quality advanced opportunities programs offered to high school students before they graduate.

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- a. Academic Dual Credit Standards for Students Enrolled in Courses Taught at the High School

Curriculum

Curriculum 1 (C1)	Courses administered through a dual credit program are catalogued courses and approved through the regular course approval process of the postsecondary institution. These courses have the same departmental designation, number, title, and credits; additionally these courses adhere to the same course description and course content as the postsecondary course.
Curriculum 2 (C2)	Postsecondary courses administered through a dual credit program are recorded on students' official academic record of the postsecondary institution.
Curriculum 3 (C3)	Postsecondary courses administered through a dual credit program reflect the pedagogical, theoretical and philosophical orientation of the sponsoring faculty and/or academic department at the postsecondary institution.

Faculty

Faculty 1 (F1)	Instructors teaching college or university courses through dual credit meet the academic requirements for faculty and instructors teaching in postsecondary or provisions are made to ensure instructors are capable of providing quality college-level instruction through ongoing support and professional development.
Faculty 2 (F2)	The postsecondary institution provides high school instructors with training and orientation in course curriculum, student assessment criteria, course philosophy, and dual credit administrative requirements before certifying the instructors to teach the college/university's courses.
Faculty 3 (F3)	Instructors teaching dual credit courses are part of a continuing collegial interaction through professional development, such as seminars, site visits, and ongoing communication with the postsecondary institutions' faculty and dual credit administration. This interaction addresses issues such as course content, course delivery, assessment, evaluation, and professional development in the field of study.
Faculty 4 (F4)	High school faculty is evaluated by using the same classroom performance standards and processes used to evaluate college faculty.

Students

Students 1 (S1)	High school students enrolled in courses administered through dual credit are officially registered or admitted as degree-seeking, non-degree or non-matriculated students of the sponsoring post-secondary institution.
Students 2 (S2)	High school students are provided with a student guide that outlines their responsibilities as well as guidelines for the transfer of credit.
Students 3 (S3)	Students and their parents receive information about dual credit programs. Information is posted on the high school's website regarding enrollment, costs, contact information at the high school and the postsecondary institution, grading, expectations of student conduct, and other pertinent information to help the parents and students understand the nature of a dual credit course.

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Students 4 (S4)	Admission requirements have been established for dual credit courses and criteria have been established to define “student ability to benefit” from a dual credit program such as having junior standing or other criteria that are established by the school district, the institution, and State Board Policy.
Students 5 (S5)	Prior to enrolling in a dual credit course, provisions are set up for awarding high school credit, college credit or dual credit. During enrollment, the student declares what type of credit they are seeking (high school only, college only or both high school and college credit). Students are awarded academic credit if they successfully complete all of the course requirements.

Assessment

Assessment 1 (A1)	Dual credit students are held to the same course content standards and standards of achievement as those expected of students in postsecondary courses.
Assessment 2 (A2)	Every course offered through a dual credit program is annually reviewed by postsecondary faculty from that discipline and dual credit teachers/staff to assure that grading standards meet those in on-campus sections.
Assessment 3 (A3)	Dual credit students are assessed using the same methods (e.g. papers, portfolios, quizzes, labs, etc.) as their on-campus counterparts.

Program Administration and Evaluation

Admin & Evaluation 1 (AE1)	The dual credit program practices are assessed and evaluated based on criteria established by the school, institution and State Board to include at least the following: course evaluations by dual credit students, follow-up of the dual credit graduates who are college or university freshmen, and a review of instructional practices at the high school to ensure program quality.
Admin & Evaluation 2 (AE2)	Every course offered through a dual credit program is annually reviewed by faculty from that discipline and dual credit staff to assure that grading standards meet those in postsecondary sections.
Admin & Evaluation 3 (AE3)	Dual credit students are assessed using the same methods (e.g. papers, portfolios, quizzes, labs, etc.) as their on-campus counterparts.
Admin & Evaluation 4 (AE4)	A data collection system has been established based on criteria established by the high school, institution and State Board to track dual credit students to provide data regarding the impact of dual credit programs in relation to college entrance, retention, matriculation from high school and college, impact on college entrance tests, etc. A study is conducted every 5 years on dual credit graduates who are freshmen and sophomores in a college or university.
Admin & Evaluation 5 (AE 5)	Costs for high school students have been established and this information is provided to students before they enroll in a dual credit course. Students pay a reduced cost per credit that is approved annually at the Board’s fee setting meeting. The approval process will consider comparable rates among institutions within the state and the cost to deliver instruction for dual credit courses.
Admin & Evaluation 6	Agreements have been established between the high school and the postsecondary institution to ensure instructional quality. Teacher

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(AE 6)	qualifications are reviewed, professional development is provided as needed, course content and assessment expectations are reviewed, faculty assessment is discussed, student's costs are established, compensation for the teacher is identified, etc.
Admin & Evaluation 7 (AE 7)	Postsecondary institutions have carefully evaluated how to provide services to all students regardless of where a student is located.

b. Dual Credit Standards for Students Enrolled in Courses at the College/University Campus

A.	The student is admitted by the postsecondary institution as a non-matriculating student.
B.	The student is charged the part-time credit hour fee or tuition and additional fees as established by the institution.
C.	Instructional costs are borne by the postsecondary institution.
D.	Four (4) semester college credits are typically equivalent to at least one (1) full year of high school credit in that subject.
E.	In compliance with Idaho Code 33-5104, prior to enrolling, the student and the student's parent/guardian must sign and submit a counseling form provided by the school district that outlines the provisions of the section of this Code. The counseling form includes written permission from the student's parent/guardian, and principal or counselor.
F.	<p>Any high school student may make application to one of the public postsecondary institutions provided all of the following requirements are met:</p> <p>The student has reached the minimum age of 16 years or has successfully completed at least one-half of the high school graduation requirements as certified by the high school.</p> <p>Submission of the appropriate institutional application material for admission. Written notification of acceptance to the institution will be provided to the student after he or she submits the appropriate application.</p> <p>If required by institutional policy, a student must obtain approval of the college or university instructor to enroll in a course.</p> <p>Those high school students meeting the above requirements will be permitted to enroll on a part-time basis or full-time basis as defined in Board policy.</p>
G.	Students seeking admission who do not meet the above requirements may petition the institution's admission committee for consideration. Students enrolled in a public school may seek admission to enroll by submitting a petition to the high school principal's office and to the admissions office of the postsecondary institution.

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c. Advanced Placement Standards

Advanced Placement (AP) courses are taught by high school teachers following the curricular goals administered by The College Board. These college level courses are academically rigorous and conclude with the optional comprehensive AP exam in May. Students taking AP courses accept the challenge of a rigorous academic curriculum, with the expectation of completing the complex assignments associated with the course and challenging the comprehensive AP exam. The AP Examination is a national assessment based on the AP curriculum, given in each subject area on a specified day at a specified time, as outlined by the College Board. Students and parents are responsible for researching the AP policy of the postsecondary institution the student may wish to attend. College/university credit is based on the successful completion of the AP exam, and dependent upon institutional AP credit acceptance policy.

Curriculum

Curriculum 1 (C1)	Postsecondary institutions evaluate AP scores and award credit reflecting the pedagogical, theoretical, and philosophical orientation of the sponsoring faculty and/or academic department at the institution.
Curriculum 2 (C2)	High school credit is given for enrollment and successful completion of an AP class.

Faculty

Faculty 1 (F1)	AP teachers shall follow the curricular materials and goals outlined by The College Board.
Faculty 2 (F2)	The AP teacher may attend an AP Institute before teaching the course.

Students/Parents

Students 1 (S1)	A fee schedule has been established for the AP exam. Students and their parents pay the fee unless other arrangements have been made by the high school.
Students 2 (S2)	Information must be available from the high school counselor, AP coordinator or other faculty members regarding admission, course content, costs, high school credit offered and student responsibility.

Assessment

Assessment 1 (A1)	Students are assessed for high school credit according to the requirements determined by the high school.
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Program Administration and Evaluation

Admin & Evaluation 1 (AE1)	To evaluate the success of the programs and to improve services, the school district must annually review the data provided by The College Board.
Admin & Evaluation 2 (AE2)	The school district must carefully evaluate how to provide services to all students, regardless of family income, ethnicity, disability, or location of educational setting.

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d. ~~Tech Prep~~ Professional-Technical Advanced Learning (PTAL) Standards

~~Professional-Technical Education programs in Idaho are delivered through comprehensive high schools, professional-technical schools, and the technical college system. Tech allows secondary professional-technical students the opportunity to simultaneously earn secondary and postsecondary technical credits. A Tech Prep course must have an approved articulation agreement between the high school and a postsecondary institution. Tech Prep is an advanced learning opportunity that provides a head start on a technical certificate, an associate of applied science degree, or towards a baccalaureate degree. There are two pathways for the awarding of PTAL credits, Technical Dual Credit and Technical Competency Credit. The technical college in each region provides a Transition Coordinator to facilitate the PTAL program and provide transition services to high school professional-technical students.~~

- i. Technical Dual Credit provides the opportunity for high school students to simultaneously earn high school and technical college credit. Credits earned will become a part of a student's permanent college record.

Technical Dual Credit Standards

Curriculum

<u>Curriculum 1 (C1)</u>	<u>Courses are catalogued postsecondary technical courses approved through the regular course approval process of the technical college. These courses have the same departmental designation, number, title, and credits as traditional technical college courses. These courses adhere to the same course description and course content as the technical college course.</u>
<u>Curriculum 2 (C2)</u>	<u>Courses are recorded on a student's' official academic record of the technical college.</u>
<u>Curriculum 3 (C3)</u>	<u>Courses reflect the pedagogical, theoretical and philosophical orientation of the sponsoring department at the technical college.</u>

Faculty

<u>Faculty 1 (F1)</u>	<u>Instructors meet the professional-technical certification requirements for postsecondary faculty and instructors, or provisions are made to ensure instructors are capable of providing quality college-level instruction through ongoing support and professional development.</u>
<u>Faculty 2 (F2)</u>	<u>The technical college provides high school instructors with training and orientation in course curriculum, student assessment criteria, course philosophy, and Technical College administrative requirements before approving instructors to teach the technical college's courses.</u>
<u>Faculty 3 (F3)</u>	<u>Instructors are part of continuing professional development, such as seminars, site visits, and ongoing communication with the college faculty, Division of Professional-Technical Education Program Manager, and regional Transition Coordinator. This interaction addresses issues, including but not limited to: course content, course delivery, assessment, evaluation, and professional development in the field of study.</u>

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<u>Faculty 4 (F4)</u>	<u>Instructors teaching Technical Career Specialty Credit courses are evaluated according to processes agreed upon by the technical college and school district.</u>
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Students

<u>Students 1 (S1)</u>	<u>High school students enrolled in Technical Career Specialty Credit courses are considered both high school and technical college students.</u>
<u>Students 2 (S2)</u>	<u>High school students are provided with a student guide that outlines their responsibilities, as well as guidelines for the transfer and the value over time of transcribed technical credit.</u>
<u>Students 3 (S3)</u>	<u>Technical Career Specialty Credit student admission requirements are outlined in SBOE Policy III.Q.11.</u>
<u>Students 4 (S4)</u>	<u>To enroll the student must enroll as a technical college student to receive the post-secondary credit. Enrolled students are only awarded credit if they successfully completes all of the course requirements.</u>

Assessment

<u>Assessment 1 (A1)</u>	<u>Technical Career Specialty students are held to the same course content standards and standards of achievement as those expected of students in technical college courses.</u>
<u>Assessment 2 (A2)</u>	<u>Every Technical Career Specialty course offered is annually reviewed by technical college faculty and high school program instructors to assure that technical college standards are being met.</u>
<u>Assessment 3 (A3)</u>	<u>Students enrolled for Technical Career Specialty Credit are assessed at the same level of proficiency using the same methods as technical college students and by a process approved by the technical college.</u>

Program Administration and Evaluation

<u>Admin & Evaluation 1 (AE1)</u>	<u>The technical college in each region will provide a Transition Coordinator to facilitate the PTAL program and provide transition services to high school professional-technical students.</u>
<u>Admin & Evaluation 2 (AE2-)</u>	<u>Agreements are established between the high school and the technical college to ensure instructional quality. Teacher qualifications, course content, student assessment, and faculty assessment are reviewed and agreed upon by the technical college.</u>
<u>Admin & Evaluation 3 (AE 3)</u>	<u>Costs information is provided to students prior to enrollment in a course. Students pay a transcription fee consistent with the current Workforce Training Fee (SBOE Policy IV.R.3.a.ix.).</u>

- ii. Technical Competency Credit provides an avenue for high school students to document proficiency in the skills and abilities they develop in high school professional-technical programs for future transcription as appropriate pursuits when they matriculate to a postsecondary institution.

Curriculum

<u>Curriculum 1 (C1)</u>	<u>A Tech Prep course must have an approved articulation agreement with a postsecondary institution. High school professional-technical courses and course content must have competencies comparable with technical college courses and be identified as eligible for Technical Pathway Credit consideration through a Technical Pathway Credit Agreement</u>
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	<u>(e.g. articulation agreement) with at least one Idaho technical college.</u>
Curriculum 2 (C2)	Secondary and postsecondary educators must agree on the technical competencies, <u>and agree to the student learning outcomes, and</u> level of proficiency <u>to be demonstrated by the student.</u>

Faculty

Faculty 1 (F1)	Secondary <u>educators</u> and postsecondary educators must hold appropriate <u>professional-technical</u> certification in the program area for which articulated credit is to be awarded.
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Students/Parents

Students 1 (S1)	Tech Prep <u>Technical Pathway Credit</u> -students <u>participating in this advanced opportunity</u> are high school students, <u>and are not enrolled in the technical college.</u>
<u>Students 2 (S2)</u>	<u>High school students are provided with a student guide that outlines their responsibilities, as well as guidelines for the process of transcribing and the value over time of the transcribed technical college credit.</u>
Students 32 <u>(S32)</u>	At the completion of the Tech Prep <u>Technical Pathway Credit</u> course <u>program.</u> †The instructor will recommend <u>identify</u> students <u>eligible for college credit based on their performance</u> <u>who have met program competencies.</u> To be eligible for college credit students must receive a grade of B or complete a minimum of 80% of the competencies in the course.

Assessment

Assessment 1 (A1)	The students are assessed for high school and postsecondary <u>technical</u> credit according to the requirements of the articulation <u>Technical Pathway Credit Agreement.</u>
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Program Administration and Evaluation

Admin & Evaluation 1 (AE1)	The technical college in each region administers the Advanced Learning Partnership (ALP). The school districts in each region are members of the ALP. The Tech Prep program is administered through the six Advanced Learning Partnerships and each of the technical colleges serves as the fiscal agent. The ALP Advisory Committee meets at least twice per school year.
Admin & Evaluation 21 <u>(AE2-AE1)</u>	Each <u>Any Technical Pathway Credit</u> articulation a <u>Agreement</u> <u>between a secondary professional-technical program and a technical college</u> must be reviewed annually.
<u>Admin & Evaluation 2 (AE 2)</u>	<u>At the time of regular admission to the technical college program, the student will be assessed a transcription fee consistent with the current Workforce Training Fee (SBOE Policy IV.R.3.a.ix.) for qualifying Technical Pathway credits earned in high school.</u>

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SUBJECT

Board Policy III.E. Certificates and Degrees – Second Reading

REFERENCE

October 2002	Board approved the first reading of amendments to Board Policy III.E.
December 2002	Board approved the second reading of amendments to Board Policy III.E.
December 2013	Board approved first reading of amendments to Board Policy III.E.

APPLICABLE STATUTES, RULE OR POLICY

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

BACKGROUND/DISCUSSION

At the December 2013 Board meeting, the Board approved the first reading of amendments to Board Policy III.E. Certificates and Degrees. Proposed amendments included updated definitions of the professional-technical education certificates and the Associate of Applied Science Degree definitions, as well as adoption of the Northwest Commission on Colleges and Universities credit hour definition.

IMPACT

Proposed amendments will add clarifying language allowing for individuals and institutions to better distinguish between the three types of technical certificates, as well as updating the definition for the Associate of Applied Sciences degree and Credit Hour.

ATTACHMENTS

Attachment 1 – Board Policy III.E. Certificates and Degrees –
Second Reading

Page 3

STAFF COMMENTS AND RECOMMENDATIONS

Board staff forwarded the proposed changes to the Council on Academic Affairs and Programs (CAAP) and requested feedback. CAAP reviewed the changes approved during the first reading at their February meeting. CAAP did not have any additional changes to bring forward at this time and concurred with the use of NWCCU's credit hour definition.

NWCCU's credit hour definition of one (1) hour of classroom instruction and two (2) hours of out of class instruction per week for approximately fifteen weeks is equivalent to forty-five (45) clock hours of student involvement as is currently stated in Board policy.

There were no changes between the first and second readings. Staff recommends approval.

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BOARD ACTION

I move to approve the second reading of proposed amendments to Board policy III.E. Certificates and Degrees 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

E. Certificates and Degrees

February 2014

1. Definitions

Programs of instruction require specified numbers of credits earned through educational work on the part of students. Completion of the program of instruction results in the awarding of a certificate to or conferring of a degree upon the student by the faculty and the Chief Executive Officer. The following definitions have been approved by the Board:

a. CERTIFICATES:

i. Academic Certificate

A credential awarded for completion of a coherent program of study consisting of seven (7) semester credits or more, representing a coherent body of knowledge that does not lead to a degree.

ii. Academic Certificate of Completion

A credential awarded for completion of a coherent program of study consisting of six (6) semester credits or less, representing a coherent body of knowledge that does not lead to an academic certificate or a degree.

iii. Technical Certificate of Completion

A professional-technical credential awarded by the institution consisting of seven (7) semester credits or less that represents mastery of a defined set of competencies

iv. Basic Technical Certificate

A credential awarded for completion of requirements in an approved professional-technical program of at least eight (8) semester credit hours and represents mastery of a defined set of competencies.

v. Intermediate Technical Certificate

A credential awarded for the completion of requirements in an approved professional-technical program of at least 30 semester credit hours and represents mastery of a defined set of competencies.

vi. Advanced Technical Certificate

A credential awarded for completion of requirements in an approved professional-technical program of at least 52 semester credit and represents mastery of a defined set of competencies.

b. ASSOCIATE OF APPLIED SCIENCE DEGREE: A credential awarded for completion of requirements in an approved professional-technical program of at

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least 60 semester credits (includes a minimum of 15 general education credits) and represents mastery of a defined set of competencies. An Advanced option may be awarded for additional credits of at least 15 credit hours that are beyond the A.A.S. degree.

- c. ASSOCIATE DEGREE: A credential awarded for completion of requirements entailing at least two (2) but normally less than four (4) years of full-time academic work.
- d. BACCALAUREATE DEGREE: A credential awarded for completion of requirements entailing at least four (4) years of full-time academic work.
- e. MASTER'S DEGREE: A credential awarded for completion of requirements entailing at least one (1) but normally not more than two (2) years of full-time academic work beyond the baccalaureate degree, including any required research.
- f. SPECIALIST DEGREE: A credential awarded for completion of requirements entailing at least two (2) but normally not more than three (3) years of full-time academic work beyond the baccalaureate degree.
- g. DOCTORAL DEGREE: A credential awarded for completion of requirements entailing at least three (3) years of full-time academic work beyond the baccalaureate degree, including any required research.

2. Academic and Professional-Technical Credit Hour Requirements

A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

- a. One (1) hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
- b. At least an equivalent amount of work as required in paragraph (a) of this definition for other academic activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

3. Requirements for Certificate or Degree

Each institution will establish the number of earned credits required for each certificate or degree. The requirements may differ from the general requirements specified in the definitions, but all credit requirements must receive approval in accordance with the program approval policies provided in III.G. Institutional

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catalogs will specify the required number of earned credits for each certificate or degree.

4. Authorization Required

Programs offered at the institution, as well as the certificates and degrees to which they lead, are subject to review and approval in accordance with the program approval policies provided in III.G. A certificate or degree conferred upon the student is conferred under the authority of the Board.

5. Authorized Certificates and Degrees

A current listing of authorized certificates and degrees awarded by each institution is maintained at the institution by the Chief Executive Officer and for all institutions at the Office of the State Board of Education.

6. Honorary Degrees

Each institution, except Eastern Idaho Technical College, may award honorary degrees, not to exceed the highest level of Board-authorized degrees currently awarded by the institution, to persons in recognition of distinguished achievements at the local, state, or national level in areas such as education, public service, research, sciences, humanities, business, or other professions. The award of an honorary degree must receive the prior approval of the Chief Executive Officer upon recommendation by the faculty.

Each institution will develop its own procedures for seeking nominations for and selecting honorary degree recipients. Those procedures may include a statement of eligibility requirements for honorary degrees. However, no person who is currently employed by the institution, is a member of the Board or the Board's staff, or is an incumbent elected official is eligible for an honorary degree during the term of employment, appointment, or office.

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SUBJECT

Board Policy III.Q. Admission Standards – Second Reading

REFERENCE

June 2007	Board approved the first reading of amendments to Board Policy III.Q.
August 2007	Board approved the second reading of amendments to Board Policy III.Q.
December 2013	Board approved the first reading of amendments to Board Policy III.Q.

APPLICABLE STATUTES, RULE OR POLICY

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

BACKGROUND/DISCUSSION

Proposed amendments to Board Policy III.Q. Admission Standards updates the term Accelerated Learning to the currently used term defined in Board Policy III.Y. Advance Opportunities, as well as adding clarifying language to the professional-technical education (PTE) admission requirements.

IMPACT

Proposed amendments will add necessary language to Board policy clarifying that students must meet both the institution's admission requirements, as well as any additional admission requirements of the PTE program.

ATTACHMENTS

Attachment 1 – Board Policy III.Q. Admission Standards –
Second Reading

Page 3

STAFF COMMENTS AND RECOMMENDATIONS

Board staff forwarded the proposed changes to the Council on Academic Affairs and Programs (CAAP) and requested feedback. CAAP reviewed the changes approved during the first reading at their February meeting. Additional changes will be brought forward to this section of policy regarding subsection C, placement in entry-level college courses, once the work of the remediation taskforce is completed.

There were no changes between the first and second readings. Staff recommends approval.

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BOARD ACTION

I move to approve the second reading of proposed amendments to Board Policy III.Q. Admission Standards 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: Q. Admission Standards

February 2014

1. Coverage

Boise State University, College of Southern Idaho, Eastern Idaho Technical College, Idaho State University, Lewis-Clark State College, North Idaho College and The University of Idaho are included in this subsection. The College of Southern Idaho, College of Western Idaho and North Idaho College are exempted from certain provisions of this admission policy as determined by their local boards of trustees.

2. Purposes

The purposes of the admission policies are to:

- a. promote institutional policies which meet or exceed minimum statewide standards for admission to higher education institutions;
- b. inform students of the academic and applied technology degree expectations of postsecondary-level work;
- c. improve the quality of academic and applied technology degree preparation for postsecondary programs;
- d. enhance student access to academic and applied technology degree programs; and
- e. admit to postsecondary education institutions those students for whom there is a reasonable likelihood of success.

3. Policies

The college and universities must, with prior Board approval, establish institutional policies which meet or exceed the following minimum admission standards. Additional and more rigorous requirements also may be established by the college and universities for admission to specific programs, departments, schools, or colleges within the institutions. Consistent with institutional policies, admission decisions may be appealed by applicants to the institutional admissions committee.

4. Academic College and University Regular Admission

A degree-seeking student with fewer than fourteen (14) credits of postsecondary work must complete each of the minimum requirements listed below. (International students and those seeking postsecondary professional-technical studies are

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exempt.)

- a. Submit scores received on the ACT (American College Test) or SAT (Scholastic Aptitude Test) and/or other standardized diagnostic tests as determined by the institution. These scores will be required of applicants graduating from high school in 1989 or later. Exceptions include applicants who have reached the age of 21. These applicants are subject to each institution's testing requirements.
- b. Graduate from an accredited high school and complete the courses below with a 2.00 grade point average. Applicants who graduate from high school in 1989 or later will be subject to the admission standards at the time of their graduation.

Subject Area	Minimum Requirement	Select from These Subject Areas
English	8 credits	Composition, Literature
Math	6 credits	<p>A minimum of six (6) credits, including Applied Math I or Algebra I; Geometry or Applied Math II or III; and Algebra II. A total of 8 credits are strongly recommended.</p> <p>Courses not identified by traditional titles, i.e., Algebra I or Geometry, may be used as long as they contain all of the critical components (higher math functions) prescribed by the State Mathematics Achievement Standards.</p> <p>Other courses may include Probability, Discrete Math, Analytic Geometry, Calculus, Statistics, and Trigonometry. Four (4) of the required mathematics credits must be taken in the 10th, 11th, and 12th grade.</p>
Social Science	5 credits	<p>American Government (state and local), Geography, U.S. History, and World History.</p> <p>Other courses may be selected from Economics (Consumer Economics if it includes components as recommended by the State Department of Education), Psychology, and Sociology.</p>
Natural Science	6 credits	<p>Anatomy, Biology, Chemistry, Earth Science, and Geology. Physiology, Physics, Physical Science, Zoology. A maximum of two (2) credits may be derived from vocational science courses jointly approved by the State Department of Education and the State Division of Professional-Technical Education, and/or Applied Biology, and/or Applied Chemistry. (Maximum of two (2) credits).</p> <p>Must have laboratory science experience in at least two (2) credits.</p> <p>A laboratory science course is defined as one in which at least one (1) class period per week is devoted to providing students with the opportunity to manipulate equipment, materials, or specimens; to develop skills in observation and analysis; and to discover, demonstrate, illustrate, or test scientific principles or concepts.</p>

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Subject Area	Minimum Requirement	Select from These Subject Areas
Humanities Foreign Language	2 credits	<p>Literature, History, Philosophy, Fine Arts (if the course includes components recommended by the State Department of Education, i.e., theory, history appreciation and evaluation), and inter-disciplinary humanities (related study of two or more of the traditional humanities disciplines). History courses beyond those required for state high school graduation may be counted toward this category.</p> <p>Foreign Language is strongly recommended. The Native American Languages may meet the foreign language credit requirement</p>
Other College Preparation	3 credits	<p>Speech or Debate (no more than one (1) credit). Debate must be taught by a certified teacher.</p> <p>Studio/Performing Arts (art, dance, drama, and music).</p> <p>Foreign Language (beyond any foreign language credit applied in the Humanities/Foreign Language category).</p> <p>State Division of Professional-Technical Education-approved classes (no more than two (2) credits) in Agricultural science and technology, business and office education, health occupations education, family and consumer sciences education, occupational family and consumer sciences education, technology education, marketing education, trade, industrial, and technical education, and individualized occupational training.</p>

- c. Placement in entry-level college courses will be determined according to the following criteria.

Placement Scores for English

Class	ACT English Score	SAT English Score	AP Exam	COMPASS Score
English 90	<17	>200	NA	0 - 67
English 101	18-24	>450	NA	68 - 94
English 101 Credit English 102 Placement	25-30	>570	3 or 4	95 -99
Credit English 101 and English 102	>31	>700	5	

Placement Scores for Math

Class	ACT Math Score	SAT Math Score	COMPASS Score
Math 123 Math 127 Math 130	>19	>460	Algebra > 45

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Math 143 Math 147 Math 253-254	>23	>540	Algebra >61
Math 144 Math 160	>27	>620	College Algebra >51
Math 170	>29	>650	College Algebra >51 Trigonometry >51

NOTES:

If a high school does not offer a required course, applicants may contact the institutional admission officer for clarification of provisional admission procedures.

High school credit counted in one (1) category (e.g., Humanities/Foreign Language) may not count in another category.

5. Academic College and University Conditional Admission

It is the Board's intent that a student seeking conditional admission to any public postsecondary institution must take at least two (2) testing indicators that will allow the institution to assess competency and placement.

- a. Submit scores received on ACT (American College Test) or SAT (Scholastic Aptitude Test) prior to enrollment. Effective fall semester 1989.
- b. Effective fall semester 1989, a degree-seeking applicant who does not qualify for admission based on 4.b above but who satisfies one (1) of the criteria below, may be asked to petition the institutional director for admissions.
 - i. A high school graduate from an accredited secondary school who has not completed the Board's Admission Standards core and has a predicted college GPA of 2.00 based on ACT, SAT and/or ACT COMPASS at the institution to which the student is seeking admission.
 - ii. Students who graduate from non-accredited secondary schools or home schools must have a predicted college GPA of 2.00 based on the ACT or SAT at the institution to which the student is seeking admission. In addition, the student must have an acceptable performance on one (1) of the following two (2) testing indicators: (a) GED (General Educational Development) Test; or (b) other standardized diagnostic tests such as the ACT COMPASS, ASSET, or CPT.
 - iii. Deserves special consideration by the institution, e.g., disadvantaged or minority students, delayed entry students, returning veterans, or talented students wishing to enter college early.

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NOTE: Regarding the ACT/SAT, this requirement is for students who graduated from high school in 1989 or later. Students who have graduated prior to 1989 or who have reached the age of 21 at the time of application are subject to each institution's testing requirements for admission.

- c. If admitted, the student must enroll with conditional standing and is subject to the institutional grade retention/probation/dismissal policies; excepting that a student with conditional standing may change to regular admission status upon satisfactory completion of fourteen (14) baccalaureate-level credits, twelve (12) of which must be in four (4) different subject areas of the general education requirements of the institution the student is attending. Regular admission status must be attained within three (3) registration periods or the student will be dismissed, subject to institutional committee appeal procedures.

6. Advanced Opportunities Students

Those secondary students who wish to participate in the Advanced Opportunities outlined in Board Policy Section III.Y. Advanced opportunities, must follow the procedures outlined in Board Policy III.Y.

7. Transfer Admission

- a. Effective fall semester 1989, a degree-seeking student with fourteen (14) or more semester hours of transferable baccalaureate-level credit from another college or university and a cumulative GPA of 2.00 or higher may be admitted. A student not meeting this requirement may petition the institutional director of admissions. If admitted, the student must enroll on probation, meet all conditions imposed by the institutional admissions committee, and complete the first semester with a 2.00 GPA or higher, or be dismissed.
- b. The community colleges work cooperatively with the college and universities to ensure that transfer students have remedied any high school deficiencies, which may have prevented them from entering four-year institutions directly from high school.

8. Compliance and Periodic Evaluation

The Board will establish a mechanism for:

- a. monitoring institutional compliance with the admission standards;
- b. conducting and reporting periodic analyses of the impact, problems, and benefits of the admission standards; and
- c. providing information as necessary and appropriate from the college and universities to the secondary schools and community colleges on the academic

performance of former students.

9. Professional-Technical Education Admissions

a. Admission Standards

Regular or *Conditional* admission standards apply to individuals who seek a technical certificate or Associate of Applied Science (A.A.S.) degree through a professional-technical program. The admission standards and placement criteria do not apply to Workforce Development, Short-term Training, Farm Management, Truck Driving, Apprenticeship, and Fire and Emergency Service courses/programs. Professional-technical programs employ program admission processes in addition to institutional program admission (see 9.f. below).

b. Placement Tests

Placement test scores indicating potential for success are generally required for enrollment in a professional-technical program of choice. Placement score requirements vary according to the program.

c. Idaho Technical College System

The professional-technical programs are offered at the following locations:

Region I Coeur d'Alene, North Idaho College
Region II Lewiston, Lewis-Clark State College
Region III Nampa, College of Western Idaho
Region IV Twin Falls, College of Southern Idaho
Region V Pocatello, Idaho State University
Region VI Idaho Falls, Eastern Idaho Technical College

d. Purposes

- i. Clarify the importance of career planning and preparation: high school students should be actively engaged in career planning prior to entering the 9th grade. Career planning assures that students have sufficient information about self and work requirements to adequately design an education program to reach their career goals.
- ii. Emphasize that professional-technical courses in high school, including Professional-technical Advanced Learning (PTAL) and work-based learning connected to school-based learning, are beneficial to students seeking continued education in professional-technical programs at the postsecondary level.
- iii. Clarify the kind of educational preparation necessary to successfully enter and complete postsecondary studies. Mathematics and science are essential

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for successful performance in many professional-technical programs. Programs of a technical nature generally require greater preparation in applied mathematics and laboratory sciences.

- iv. Clarify that professional-technical programs of one or two years in length may require additional time if applicants lack sufficient educational preparation.

- e. Professional Technical Regular Admission

Students desiring *Regular Admission* to any of Idaho's technical colleges must meet the following standards. Students planning to enroll in programs of a technical nature are also strongly encouraged to complete the recommended courses. Admission to a specific professional-technical program is based on the capacity of the program and specific academic and/or physical requirements established by the technical college/program.

- i. Standards for high school graduates of 1997 and thereafter

- 1) High School diploma with a minimum 2.0 GPA¹; and,
- 2) Placement examination² (CPT, ACT COMPASS, ACT, SAT or other diagnostic/placement tests as determined by the institution. CPT or ACT COMPASS scores may also be used to determine placement eligibility for specific professional-technical programs.); and,
- 3) Satisfactory completion of high school coursework that includes at least the following:
 - a) *Mathematics -- 4 credits* (6 credits recommended) from challenging math sequences of increasing rigor selected from courses such as Algebra I, Geometry, Applied Math I, II, and III, Algebra II, Trigonometry, Discrete Math, Statistics, and other higher level math courses. Two (2) mathematics credits must be taken in the 11th or 12th grade. (After 1998, less rigorous math courses taken in grades 10-12, such as pre-algebra, review math, and remedial math, shall not be counted.)
 - b) *Natural Science -- 4 credits* (6 credits recommended, with 4 credits in laboratory science) including at least 2 credits of laboratory science from challenging science courses including applied biology/chemistry,

¹An institution may choose to substitute a composite index placement exam score and high school GPA for the GPA admission requirement.

²If accommodations are required to take the placement exam(s) because of a disability, please contact the College to which you are interested in applying.

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principles of technology (applied physics), anatomy, biology, earth science, geology, physiology, physical science, zoology, physics, chemistry, and agricultural science and technology courses (500 level and above).

- c) *English -- 8 credits.* Applied English in the Workplace may be counted for English credit.
- d) *Other --* Professional-technical courses, including courses eligible for PTAL consideration and organized work-based learning experiences connected to the school-based curriculum, are strongly recommended. (High School Work Release time not connected to the school-based curriculum will not be considered.)

ii. Standards for others Seeking Regular Admission

Individuals who graduated from high school, received their GED prior to 1997, or who are at least 21 years old and who desire *Regular Admission* to the technical colleges must complete:

- 1) High School diploma with a minimum 2.0 GPA
- or -
- 2) General Educational Development (GED) certificate³
- and -
- 3) Placement examination (CPT, ACT COMPASS, SAT or other diagnostic/placement tests as determined by the institutions. CPT or ACT COMPASS scores may also be used to determine admission eligibility for specific professional-technical programs.)

10. Professional Technical Conditional Admission

Students who do not meet all the requirements for regular admission may apply to a technical program under conditional admission. Students who are conditionally admitted must successfully complete appropriate remedial, general and/or technical education coursework related to the professional-technical program for which regular admission status is desired, and to demonstrate competence with respect to that program through methods and procedures established by the technical college. Students desiring *Conditional Admission* must complete:

- a. High School diploma or GED certificate³
- and -
- b. Placement examination (CPT, ACT COMPASS, SAT or other

³Certain institutions allow individuals who do not have a high school diploma or GED to be admitted if they can demonstrate the necessary ability to succeed in a technical program through appropriate tests or experiences determined by the institution.

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diagnostic/placement tests as determined by the institutions. CPT or ACT COMPASS scores may also be used to determine placement eligibility for specific professional-technical programs.)

11. Professional Technical Early Admission

High school technical dual credit students may also be admitted as non-degree seeking students. Placement exams are not required for regular or conditional admission until the student has completed the 12th grade.

12. Professional Technical Placement Criteria: Procedures for Placement into Specific Professional Technical Programs

In addition to the requirements for admission to a technical program, students need to be aware that specific professional technical programs require different levels of competency in English, science and mathematics. Students must also be familiar with the demands of a particular occupation and how that occupation matches individual career interests and goals. Therefore, before students can enroll in a specific program, the following placement requirements must be satisfied:

- a. Each technical program establishes specific program requirements (including placement exam scores) that must be met before students can enroll in those programs. A student who does not meet the established requirements for the program of choice will have the opportunity to participate in remedial education to improve their skills.
- b. Students should provide evidence of a career plan. (It is best if this plan is developed throughout high school prior to seeking admission to a technical college.)
- c. Technical colleges employ formal procedures and definitions for program admission. Program admission requirements and procedures are clearly defined and published for each program.

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SUBJECT

Waiver of Board Policy III.Q.4.c, Placement Scores

REFERENCE

December 2008	Information Item Presented to Board on the Formation of a Task Force to Examine Alternative Approaches for Placement of Students into First-Year Writing Courses (English 90, 101, and 102).
December 2010	Waiver of Board Policy III.Q.4.C., for placement in entry-level college English courses to permit pilots to establish alternative placement mechanisms for English.
February 2013	The Board approved a waiver of Board Policy III.Q.4.c to permit alternative placement mechanisms that are in alignment with the Complete College Idaho plan until the beginning of Fall 2014.

APPLICABLE POLICY

Idaho State Board of Education Governing Policies & Procedures, Section III.Q, Admission Standards

BACKGROUND/DISCUSSION

Board Policy III.Q., Admission Standards provides coverage for both admission and lower division course placement at the public institutions. In June 2008, the Council on Academic Affairs and Programs (CAAP) was presented with a proposal on behalf of the English Department Chairs and Writing Program Administrators to form a task force that would explore alternatives or new methods for more accurately placing students in first-year writing courses. CAAP supported the establishment of an English Placement task force, developed a charge with deliverables and timeline. Over the course of two years, the task force reviewed best practices to establish a common framework to be used in developing alternative placement mechanisms.

Institutions implemented pilot programs to determine the effectiveness of the alternative placement options. The results concluded that additional placement measures, and oftentimes different than current policy or historical practice, led to a positive initial experience in college during a critical transition period, and that institutions and students managed resources more efficiently. In September 2010 the English Placement Taskforce presented CAAP with the following recommendations:

- Continued institutional commitment to the collaboratively-developed Framework for Writing Placement
- Amending language to Board Policy III.Q., Admission Standards to distinguish between admission and placement

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- Reviewing the current placement chart for first-year writing in Board Policy III.Q., and place differently within the policy
- Evaluating how to award students college credit for course work actually taken

In December 2010 staff was aware that beyond the English Placement Taskforce Recommendations, further revisions to Board Policy III.Q. were necessary. At that time, staff and CAAP requested the Board waive the criteria contained in policy III.Q.4.c. for placement in entry-level college courses to permit the alternative placement mechanisms for English and that said waiver would expire in the Fall of 2012.

Two of the strategies of the Complete College Idaho (CCI) plan are directly connected to Board Policy III.Q. and associated placement requirements: Transform Remediation and Structure for Success (which includes general education core reform). The Chief Academic Officer and CAAP established two statewide taskforces, the State General Education Reform Taskforce and the State Transforming Remediation Taskforce, to develop recommendations that will be brought to the Board for their review and approval. The State General Education Reform Taskforce will be reviewing communications, math and English discipline recommendations regarding courses that should make up the general education core in their discipline, basic skill competencies for those courses and essential learning outcomes. These disciplines will extend to the humanities and physical life, and social sciences in the next phases of this work. The State General Education Reform Taskforce will then take this information and make recommendations to CAAP and the Board Instructions, Research, and Student Affairs (IRSA) Committee and ultimately recommendations to the full Board for their approval. The math and English discipline recommendations will provide the necessary contextual framework for the State Remediation taskforce to identify the most appropriate assessment and placement requirements.

Two subgroups of the State Transforming Remediation Taskforce have been created, Assessment & Placement and Delivery Models. These groups met in April 2013 to review state and national data, best practice models, and make recommendations on the appropriate framework for assessment and placement and implementation of the three Board identified delivery models.

Significant foundational work to revise assessment and placement practice and delivery of remediation education is already underway on most campuses and we are seeing increased student success because of that.

The work of the Remediation teams is dependent on the recommendations of the General Education Taskforce. The General Education Task force recommendations were provided in December 5-6, 2013, and the Remediation teams met again on February 25-26, 2014 to incorporate the recommendations of the General Education Taskforce into the remediation work. The teams hope

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to have recommendations in place, in order to support the work of the Complete College Idaho plan and one of our key strategies to transform remediation, in place for student entering Fall 2015. Board approval to waive policy section III.Q.4.c. is necessary pending completion of remediation efforts.

ATTACHMENTS

Attachment 1 - Board Policy III.Q.4.c, Admission Standards,
English Placement

Page 5

STAFF COMMENTS AND RECOMMENDATIONS

The work done by the English Placement Taskforce in 2010 included the seven public institutions, whereby they sought to analyze and design a common framework for placement in entry-level English courses. Because of budget cuts and institution and Board staff turnover, the entirety of this work was not realized. The request to temporarily waive policy III.Q.4.c. ensures the institutions governed under the Board are in compliance with policy, while also enabling them to meet the goals of Complete College Idaho and Transforming Remediation. This temporary waiver will allow staff time to work with CAAP and the State Transforming Remediation Taskforce to ensure there is a consistent model for placing students, which is transparent for students and counselors, and to ensure that policy is in alignment with the Board's strategic plan, 60% statewide completion goal, and the Complete College Idaho Plan.

Part of this waiver requirement should include the notification to the Chief Academic Officer and CAAP of the institutions' assessment and placement practices to ensure alignment with the Transforming Remediation strategy and supporting initiatives.

BOARD ACTION

I move to extend the waiver of the criteria in Board policy III.Q.4.c for placement in entry-level college courses to permit alternative placement mechanisms that are in alignment with the Complete College Idaho plan until October 2015. All alternative placement mechanisms shall be reviewed by the Chief Academic Officer and the Council on Academic Affairs and Programs (CAAP) prior to implementation.

Moved by _____ Seconded by _____ Carried Yes _____ No _____

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Idaho State Board of Education

GOVERNING POLICIES AND PROCEDURES

SECTION: III. POSTSECONDARY AFFAIRS

SUBSECTION: Q. Admission Standards

August 2007

		humanities (related study of two or more of the traditional humanities disciplines). History courses beyond those required for state high school graduation may be counted toward this category.
		Foreign Language is strongly recommended. The Native American Languages may meet the foreign language credit requirement
Other College Preparation	3 credits	Speech or Debate (no more than one (1) credit). Debate must be taught by a certified teacher.
		Studio/Performing Arts (art, dance, drama, and music).
		Foreign Language (beyond any foreign language credit applied in the Humanities/Foreign Language category).
		State Division of Professional-Technical Education-approved classes (no more than two (2) credits) in Agricultural science and technology, business and office education, health occupations education, family and consumer sciences education, occupational family and consumer sciences education, technology education, marketing education, trade, industrial, and technical education, and individualized occupational training.

- c. Placement in entry-level college courses will be determined according to the following criteria.

Placement Scores for English

Class	ACT English Score	SAT English Score	AP Exam	COMPASS Score
English 90	<17	>200	NA	0 - 67
English 101	18-24	>450	NA	68 - 94
English 101 Credit English 102 Placement	25-30	>570	3 or 4	95 -99
Credit English 101 and English 102	>31	>700	5	

Placement Scores for Math

Class	ACT Math Score	SAT Math Score	COMPASS Score
Math 123 Math 127 Math 130	>19	>460	Algebra > 45
Math 143 Math 147 Math 253-254	>23	>540	Algebra >61
Math 144 Math 160	>27	>620	College Algebra >51
Math 170	>29	>650	College Algebra >51 Trigonometry >51

NOTES:

In all cases, one credit is defined as a course taken with a minimum of 70 hours of classroom instruction.

If a high school does not offer a required course, applicants may contact the institutional admission officer for clarification of provisional admission procedures.

High school credit counted in one (1) category (e.g., Humanities/Foreign Language) may not count in another category.

Each high school in Idaho has a list of approved courses, which count toward college/university admission.

5. Academic College and University Conditional Admission

It is the Board's intent that a student seeking conditional admission to any public postsecondary institution must take at least two (2) testing indicators that will allow the institution to assess competency and placement.

- a. Submit scores received on ACT (American College Test) or SAT (Scholastic Aptitude Test) prior to enrollment. Effective fall semester 1989.
- b. Effective fall semester 1989, a degree-seeking applicant who does not qualify for admission based on 4.b above but who satisfies one (1) of the criteria below, may be asked to petition the institutional director for admissions.
 - (1) A high school graduate from an accredited secondary school who has not completed the Board's Admission Standards core and has a predicted college GPA of 2.00 based on ACT, SAT and/or ACT COMPASS at the institution to which the student is seeking admission.
 - (2) Students who graduate from non-accredited secondary schools or home schools must have a predicted college GPA of 2.00 based on the ACT or SAT at the institution to which the student is seeking admission. In addition, the student must have an acceptable performance on one (1) of the following two (2) testing indicators: (a) GED (General Educational Development) Test; or (b) other standardized diagnostic tests such as the ACT COMPASS, ASSET, or CPT.
 - (3) Deserves special consideration by the institution, e.g., disadvantaged or minority students, delayed entry students, returning veterans, or talented students wishing to enter college early.

UNIVERSITY OF IDAHO

SUBJECT

Ph.D. Experimental Psychology-University of Idaho

APPLICABLE STATUTE, RULE, OR POLICY

Idaho State Board of Education Governing Policies & Procedures, Section III.G.3.b.i.3.

BACKGROUND/DISCUSSION

The University of Idaho (UI) proposes to create a new Ph.D. degree in Experimental Psychology. The Department of Psychology and Communication Studies currently offers an M.S. in Psychology with a focus in Human Factors, which involves applying psychological research and expertise to technological design of human-machine systems to enhance both the safety and productivity of working and living environments. The proposed Ph.D. program will incorporate the core curriculum of the existing M.S. program and will require additional coursework and research credits as well as a dissertation and preliminary examination.

The UI has strategically invested resources to provide graduate students with state of the art training in Psychology with a focus on Human Factors. Key collaborations with Idaho National Laboratories have led to mutually beneficial internships and research funding opportunities to support these endeavors. While Idaho State University does offer a Ph.D. in Experimental Psychology, their areas of focus do not include Human Factors training which has been the purview of the Department of Psychology and Communication Studies since the inception of the Masters level program.

The Human Factors focus in the Psychology graduate program allows for a significant distance component that would enable students to complete early coursework via distance education. This flexibility in course delivery will also maximize student opportunities to collaborate with INL and other industries while they complete internships. In the typical case, the final five semesters of graduate work for the Ph.D. will require students to be on campus for completion of additional coursework (not available online) and thesis and dissertation level research. In particularly exceptional cases, where a student is already employed in industry and has appropriate facilities and support to conduct thesis and dissertation level work, it may be possible for them to complete their graduate degree via distance coursework and research collaborations at their current place of employment.

A doctoral program with a focus in human factors will positively impact the state's economy by providing the highest level training in human factors and usability. Professionals with doctoral training in human factors typically lead research or design teams concerned with ensuring that complex technological systems meet

the needs of end-users, promote safety and increase efficiency and productivity. Idaho has a burgeoning high technology sector and this sector in particular benefits from enhanced usability in its products. The increase in energy concerns nationally and advances in technology have increased employment opportunities for individuals with Ph.D.'s in human factors psychology. This increase in employment opportunities is a primary motivating factor for creating the program. However, the broad training that students in Doctoral Psychology programs with a focus in Human Factors receive also enables them to fulfill a variety of needs in industry. Individuals who are currently employed in industry benefit from additional graduate training which allows their organizations to be competitive for grant funding and larger industrial contracts.

IMPACT

A detailed budget is provided for expanding the program to include doctoral student education. Training doctoral students will only minimally increase faculty workloads and will allow them to gain maximum use of their laboratory equipment and facilities. There will be no increase in the number of courses each faculty member teaches per semester. The current administrative structure is sufficient to support the addition of doctoral students to the program. Additional assistantship funding is typically provided to graduate students in return for teaching or research assistantships at 20 hours per week during the academic year (\$10,500 per student per year). To attract high quality Ph.D. students the UI intends to provide tuition and fee waivers to cover the expenses (\$7,162 per student per academic year). Summer funding will allow students to complete necessary research during the summer months to ensure an on-time graduation in the fourth year (\$3,640 per student per summer). We intend to use department F&A return, grant funding, and cooperative internships to cover some of these expenses when possible and rely on our current allocation to cover the remainder of these costs.

ATTACHMENTS

Attachment 1 - Program Proposal

Page 5

STAFF COMMENTS AND RECOMMENDATIONS

The University of Idaho (UI) proposes to create a new Ph.D. in Experimental Psychology, which will build upon the existing M.S. in Psychology with Human Factors. The Ph.D. program will incorporate the core curriculum of the existing M.S. program and require 78 credits of graduate coursework to include completion of a master's thesis, preliminary examination, and doctoral dissertation.

Consistent with Board Policy III.G., the UI's proposed Ph.D. program was reviewed by an external review panel consisting of Dr. David Strayer of University of Utah and Dr. John Flach of Wright State University. External reviewers felt the proposed program "meets important national and regional

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
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needs and will have a positive impact on the state's economy. Expansion to a Ph.D. program will increase both the quality and productivity of the department."

Based on a survey the UI conducted at Idaho universities, the UI anticipates admitting 2 highly qualified students in year one with 2-3 additional students per year. Reviewers emphasized that "The number of Ph.D. students supervised by each faculty should be between 2-3 students, which is consistent with peer institutions granting Ph.D. degrees in human factors." The report also noted that the "department has made several strategic hires that provide the required expertise to offer a Ph.D. degree."

Overall, the reviewers strongly recommended support for the program but also indicated the importance "to address the current funding model for graduate training if the program is to attract the best Ph.D. candidates." According to the UI, this was a general statement made by reviewers about the importance of having a strong funding model for all graduate training. The UI believes they have the administrative structure to sufficiently support the addition of 2-3 students per year and will provide assistantship funding, tuition and fee waivers or cover expenses in order to attract high quality Ph.D. students.

The UI's request to create a new Ph.D. in Experimental Psychology is consistent with their Five-year Plan for Delivery of Academic Programs in the Northwest Region. Pursuant to III.Z, Idaho State University has a Statewide Program Responsibility for Clinical Psychology, which is not the same area as the Experimental Psychology program area. Currently no other programs in Idaho and bordering states offer graduate training in Human Factors Psychology. The UI and ISU have offered complementary Experimental Psychology M.S. programs for many years with UI focusing on Human Factors and ISU on other areas of Experimental Psychology. Both universities recognize the need for doctoral level training in Experimental Psychology and have cooperatively agreed to develop Ph.D. programs in Experimental Psychology that maintained the same complementary, non-overlapping foci as their existing M.S. programs.

The following represents programs in psychology currently being offered:

Institution	Program Title	Degree Level/Certificate	Options/Minors /Emphases	Location(s)	Regional/ Statewide	Method of Delivery
UI	Psychology	BA, BS, MS	Minor	Moscow	Regional	Hybrid
ISU	Psychology	BA, BS	Minor	ISU Campus	Regional	Hybrid
ISU	Psychology	MS	Minor	ISU Campus	Regional	Face-to-Face
BSU	Psychology	BS	N/A	Boise	Regional	Traditional
BSU	Psychology		Minor	Boise	Regional	Traditional
LCSC	Psychology	BA, BS	Minor	Lewiston	Regional	Traditional

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS
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Institution	Program Title	Degree Level/Certificate	Options/Minors /Emphases	Location(s)	Regional/ Statewide	Method of Delivery
CSI	Psychology	AA	N/A	CSI Campus	Regional	Traditional with some portion avail online
CWI	Psychology	AA	NA	Boise/Nampa	Regional	Traditional
NIC	Psychology	AS	N/A	Coeur d'Alene	Region	Traditional , Web Enhanced, On-line Hybrid
NIC	Psychology	A.A.	N/A	Coeur d'Alene	Region	Traditional , Web Enhanced, On-line Hybrid

Board staff and the Council on Academic Affairs and Programs (CAAP) recommend approval as presented.

BOARD ACTION

I move to approve the request by the University of Idaho to offer a new Ph.D. in Experimental Psychology.

Moved by _____ Seconded by _____ Carried Yes _____ No _____

ATTACHMENT 1

Idaho State Board of Education

Proposal for Graduate and Doctoral Degree Program

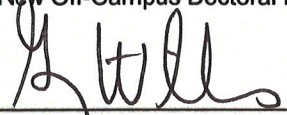
Date of Proposal Submission:	December 26, 2013
Institution Submitting Proposal:	University of Idaho
Name of College, School, or Division:	College of Letters, Arts, and Social Sciences
Name of Department(s) or Area(s):	Department of Psychology and Communication Studies

Program Identification for Proposed New, Modified, or Discontinued Program:

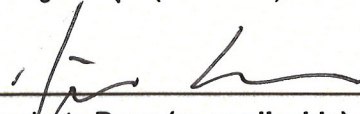
Title:	Experimental Psychology		
Degree:	Ph.D.		
Method of Delivery:	On-Campus		
CIP code (consult IR /Registrar)	42.2704		
Proposed Starting Date:	Summer 2014		
Indicate if the program is:	<input checked="" type="checkbox"/> Regional Responsibility	<input type="checkbox"/>	Statewide Responsibility

Indicate whether this request is either of the following:

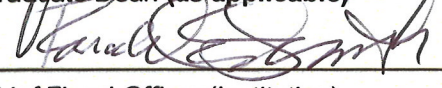
- | | |
|--|---|
| <input checked="" type="checkbox"/> New Graduate Program | <input type="checkbox"/> Contract Program/Collaborative |
| <input type="checkbox"/> New Doctoral Program | <input type="checkbox"/> Expansion of an Existing Graduate/Doctoral Program |
| <input type="checkbox"/> New Off-Campus Graduate Program | <input type="checkbox"/> Consolidation of an Existing Graduate/Doctoral Program |
| <input type="checkbox"/> New Off-Campus Doctoral Program | <input type="checkbox"/> Discontinuation of an existing Graduate/Doctoral Program |

 1.28.14
 College Dean (Institution) Date

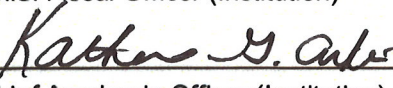
Vice President for Research (as applicable) Date

 1/28/14
 Graduate Dean (as applicable) Date


Academic Affairs Program Manager Date

 1/28/14
 Chief Fiscal Officer (Institution) Date

Chief Academic Officer, OSBE Date

 1-24-14
 Chief Academic Officer (Institution) Date

SBOE/OSBE Approval Date

 28 Jan 2014
 President Date

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

- 1. Describe the nature of the request.** Will this program be related or tied to other programs on campus? Please identify any existing program, option that this program will replace. *If this is request to discontinue an existing program, provide the rationale for the discontinuance. Indicate the year and semester in which the last cohort of students was admitted and the final term the college will offer the program. Describe the teach-out plans for continuing students.*

The Department of Psychology and Communication Studies currently offers a M.S. in Psychology with a focus in Human Factors (which involves applying psychological research and expertise to technological design of human-machine systems to enhance both the safety and productivity of working and living environments). We wish to expand our Psychology program to offer both the M.S. and Ph.D. degree. The Experimental Psychology Ph.D. program will incorporate the core curriculum of the existing M.S. program, but will require additional coursework and research credits as well as a dissertation and preliminary exam. The full program is summarized in Appendix A and meets the standards for a University of Idaho doctoral degree.

- 2. List the objectives of the program.** The objectives should address specific needs the program will meet. They should also identify and the expected student learning outcomes and achievements. *This question is not applicable to requests for discontinuance.*

Objective 1: Congruent with our department's mission statement, we currently offer internationally competitive masters-level training in applied Experimental Psychology, with a focus in Human Factors Psychology. We hope to expand our training to include the Ph.D. to provide our students with the highest-level of training possible. Human factors psychologists specialize in human-technology interaction, ergonomics, biomechanics, and safety. Our goal is to prepare our students either to enter industry or public service as practitioners or to continue their studies at the doctoral level.

Every year, several UI Psychology undergraduates and masters students express their wish to pursue doctoral training in Human Factors Psychology at UI if that were possible. Also, our faculty members spontaneously receive inquiries from students outside of Idaho who are interested in pursuing doctoral training with those faculty members. Further, the Idaho National Laboratory (INL) employs a number of human factors researchers and engineers in a variety of technical areas who have expressed an interest in having a doctoral program in human factors within the state of Idaho for their employees. Our offering a doctoral program would provide opportunities for students like these and many others.

The current M.S. program in Psychology typically enrolls 30 students at a time (approximately half of whom are on-campus students and half of whom are distance students). Adding the doctoral program will allow us to expand the number of full time graduate students on campus by 8-10 increasing the size of the graduate program from 30 to 40 students in the next 4 years. A graduate program consisting of 40 students in a single area with Psychology is quite large by any standard. The faculty to student ratio would be approximately 8 students for each faculty member. The increase in students at the Ph.D. level will increase the number of full-time students with few additional resources required to

ATTACHMENT 1

serve those students. To provide a comparison, Texas Tech University has one of the top Human Factors graduate programs offering a Ph.D. in Experimental Psychology with an emphasis in Human Factors. The Human Factors Psychology program at Texas Tech has a faculty-student ratio of 1:3.5 (4 core HF faculty and 14 graduate students) and we are proposing a significantly larger program with 5 core HF faculty and 40 graduate students. We are able to handle this much larger program because approximately 15 of those students are professionals already employed in the field and matriculating as part-time distance students. Distance students complete the M.S. without requiring funding or laboratory access. Our Experimental Psychology program in Human Factors operates across 5 laboratories with an anticipated 25 graduate students working in these facilities and with the 15 (or so) distance students we would be maximizing our capacity at 40 students without creating undue burden on our faculty or facilities.

Human Factors Psychologists are employed in a wide variety of settings, where they can have various titles including Human Factors Psychologist/Researcher/Engineer, Usability Analyst/Engineer, or User Experience Analyst/Designer. Within Idaho, graduates of our M.S. program in Psychology have been employed at a variety of companies and government agencies, including INL and the Center for Advanced Energy Studies (Idaho Falls), Hewlett-Packard and the Kohl Group (Boise), and Benchmark Research and Safety (Moscow, Boise). Outside of the state, major employers of Human Factors Psychologists include the government (agencies such as the FAA, NTSB, NHTSA, NRC, DOE), all branches of the military, the nuclear power industry, the aviation industry (e.g., Boeing, Lockheed-Martin) and all of the large information technology companies (e.g., Intel, HP, Apple, Microsoft, Google, Sony).

Objective 2: Fill a need in the state and region for human factors training that serves employers and also positively impacts the economy in Idaho by providing the highest level of training in the field of human factors.

A doctoral program in experimental psychology will positively impact the state's economy by providing the highest level training in human-machine system integration and usability. Professionals with doctoral training in human factors typically lead research or design teams concerned with ensuring that complex technological systems meet the needs of end-users, promote safety and increase efficiency and productivity. Anyone who has interacted with a poorly designed product or web site has experienced the costs of poor usability. Idaho has a burgeoning high technology sector and this sector in particular benefits from enhanced usability in its products. We have attached letters of support from INL and HP indicating the value of such a program and the need for more advanced technological training in the workforce.

- 3. Briefly describe how the institution will ensure the quality of the program** (i.e., program review). Will the program require specialized accreditation (it is not necessary to address regional accreditation)? If so, please identify the agency and explain why you do or do not plan to seek accreditation. *This question is not applicable to requests for discontinuance.*

The Psychology graduate program with a focus in Human Factors has been accredited by the Human Factors and Ergonomics Society (HFES) and joins one of only 16 programs in the nation to be so accredited. The current graduate program offers the Masters of Science degree which has been accredited with a full 6 year accreditation term through July 2019. Our M.S. program in Psychology met and in some cases exceeded the HFES accreditation requirements.

The HFES accreditation program provides a self-study for Ph.D. programs to undergo as part of the accreditation process and the design of the proposed doctoral program conforms to these standards. If a doctoral program were approved, we would seek accreditation for the doctoral program as soon as we are eligible (HFES requires that a program have at least six graduates before accreditation can be pursued).

In addition, the graduate program is assessed by the department on an annual basis. Information from our last three rounds of assessment indicates that the program is meeting learning outcomes and goals for the Master's program. In addition, our focus groups with students indicate they would continue at the University of Idaho in pursuit of the Ph.D. should such a program be available. We will incorporate the Ph.D. program into the existing assessment model which includes data on coursework completion and performance, cumulative exams passed, focus groups with graduate students and placement information after graduation.

In anticipation of the proposed program, the department has made significant and strategic hires in the human factors area and includes faculty with a breadth and depth of expertise appropriate to provide graduate students with the knowledge, mentorship and experience needed to excel in the field of Human Factors.

Human Factors Faculty

Core Faculty**Brian Dyre** (Ph.D., 1993, University of Illinois)

Dr. Dyre's research uses computational modeling and behavioral and physiological measures to conduct basic and applied research on visual perception. Particular emphasis is on issues related to the control of locomotion and piloting of vehicles, including illusions related to weather phenomena, displays supporting navigation and real-time control, simulation, and mental workload and attentional allocation in cockpits and unmanned-aerial-vehicle (UAV) workstations.

Steffen Werner (Ph.D., 1994, University of Göttingen, Germany)

Dr. Steffen Werner conducts basic research in the areas of high-level visual cognition, spatial cognition, and attention. He is particularly interested in understanding long-term visual and spatial memory, as well as the integration of different sources of information during spatial tasks. His applied research interests lie in the areas of Human-Computer Interaction (e.g., user authentication, security, innovative display technologies), driving research (in-vehicle navigational displays, driver distraction), and neuroergonomics (e.g., neurological indicators of mental workload).

Benjamin Barton (Ph.D., 2005, University of Alabama at Birmingham)

Dr. Barton's research concerns lifespan developmental factors affecting risk for unintentional injuries and injury prevention. His primary focus is the influence of developing cognitive skills on pedestrian safety during middle childhood. Other areas of interest include biking safety in children and adults, and driving behaviors among adolescents and elderly.

Rajal Cohen (Ph.D., 2008, Pennsylvania State University)

Dr. Cohen studies the interconnectedness of cognition, posture, and action, with a special interest in principles that apply across the spectrum from high performance to dysfunction.

Russell Jackson (Ph.D., 2007, University of Texas)

Dr. Jackson's research investigates how the environments in which humans evolved may have shaped how we navigate and perceive our environment. His work focuses on human factors applications in the navigation of environmental hazards. He uses virtual reality methods and live outdoor testing in order to determine how perception and navigation adapt to risks such as falling.

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4. **List new courses that will be added to your curriculum specific for this program.** Indicate number, title, and credit hour value for each course. Please include course descriptions for new and/or changes to courses. *This question is not applicable to requests for discontinuance.*

Our current master's curriculum will serve as the core curriculum for the doctoral program. This will ensure that students receive a solid background in human factors. We will add a 1 credit special topics course on human factors that doctoral students must take each semester (for a total of 8 semesters or 8 credits). This course will be used to introduce students to current research in human factors and to address professional development issues (e.g., preparing presentations for scientific conferences; manuscript preparation; grant proposals).

After completion of the master's coursework, students will be expected to spend most of their time working closely with faculty on basic and applied research projects to further develop their research skills. Depending on the student's interests and career goals, additional coursework may be required in related fields (e.g., statistics, computer science).

5. **Please provide the program completion requirements to include the following and attach a typical curriculum to this proposal as Appendix A.** *For discontinuation requests, will courses continue to be taught?*

Credit hours required:	44
Credit hours required in support courses:	0
Credit hours in required electives:	12
Credit hours for thesis or dissertation:	22
Total credit hours required for completion:	78

6. **Describe additional requirements such as preliminary qualifying examination, comprehensive examination, thesis, dissertation, practicum or internship, some of which may carry credit hours included in the list above.** *This question is not applicable to requests for discontinuance.*

Doctoral students will be required to complete a master's thesis, preliminary examination, and doctoral dissertation. The master's thesis, which may be up to 10 credits hours, is expected to be completed by the end of the student's second year. A preliminary examination will be completed following the thesis and before the student can start his or her dissertation. The preliminary examination will be tailored to the student's career goals and includes two options. The first option is a traditional exam which will assess the student's mastery of human factors and ability to utilize that knowledge to solve problems. The exam will have a written component and an oral defense. The second option is the completion of a paper, which could be a theoretical paper that is related to the student's dissertation or a technical report documenting the use of human factors to solve an applied problem. An oral defense of the paper is required. The human factors faculty will decide which option is best for the student, taking into account the student's preference, interests, and career goals.

7. Identify similar programs offered within Idaho or in the region by other colleges/universities. If the proposed request is similar to another state program, provide a rationale for the duplication.

No other programs in Idaho, Montana, Oregon, or Western Washington offer graduate training in Human Factors Psychology. In 2011, when we began preparing this program proposal, we sought a letter of support from our nearest neighbor, Washington State University and we have attached that letter (See Appendix E for Letters of Support). Recent communications indicate they continue to be in support of this program.

UI and ISU have offered complementary, non-overlapping Experimental Psychology M.S. programs for many years (with UI focusing on Human Factors and ISU on other areas of Experimental Psychology); however, both universities recognize the need for doctoral level training in Experimental Psychology. The field of psychology is divided into two primary areas: clinical psychology and experimental psychology. However, within experimental psychology there are many additional areas of specialty in which a person may receive graduate training (i.e., social psychology, developmental psychology, cognitive psychology, personality psychology, health psychology, community psychology, psychology and law, comparative psychology, behavioral pharmacology/neuroscience, evolutionary psychology, interpersonal psychology, school psychology, military psychology, industrial organizational psychology, and human factors psychology).

ISU has historically offered graduate training in clinical psychology and some areas of experimental psychology (i.e., behavioral neuroscience, behavioral pharmacology, cognition, developmental psychology, learning, personality, sensation and perception, social psychology.) By contrast the University of Idaho Experimental Psychology Master's and proposed PhD program is focused specifically on the Human Factors area within experimental psychology. ISU and UI cooperatively agreed to develop Ph.D. programs in Experimental Psychology that maintained the same complementary, non-overlapping foci as our existing M.S. programs. The NOI to add Ph.D. training in Experimental Psychology at ISU was approved first (i.e., in August, 2010) and states "...the focus of U of I's program is very different from the focus of our proposed program. We wish to be direct in supporting U of I's efforts in maintaining their program in human factors." Having well-defined doctoral programs in both departments allows the State of Idaho to meet the needs of students interested in a range of specializations and the needs of employers interested in hiring students with those specializations. A letter from the Idaho State University Chair of Psychology is forthcoming and will further attest to this plan to provide graduate training in psychology in the state.

Degrees/Certificates offered by school/college or program(s) within disciplinary area under review

Institution and Degree name	Level	Specializations within the discipline (to reflect a national perspective)	Specializations offered within the degree at the institution
BSU	B.S.		
CSI	A.A.		
CWI	A.A.		

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EITC	n/a		
ISU	B.S., M.S., Ph.D.		Experimental Psychology & Clinical Psychology (M.S. & Ph.D.)
LCSC	B.S.		
NIC	A.A.		
UI	B.S.,M.S.		Experimental Psychology

The nearest Ph.D. Experimental Psychology program offering Human Factors training is New Mexico State University in Las Cruces, New Mexico. The New Mexico State University program in Human Factors is smaller than our proposed program serving only 7 graduate students with 4 faculty members. There are only 21 Human Factors Psychology programs in the United States and of these only 16 have HFES accreditation, including the M.S. program at University of Idaho and once our Ph.D. program is implemented we will also seek accreditation for the doctoral program.

- 8. Describe the methodology for determining enrollment projections.** If a survey of student interest was conducted, attach a copy of the survey instrument with a summary of results as **Appendix B**. *This question is not applicable to requests for discontinuance.*

We conducted a survey of students at Idaho universities to estimate the degree of interest in a human factors psychology doctoral program (see Appendix B for the survey and complete results). Responses were received from 298 students from five universities (U-Idaho, ISU, BYU-Idaho, Northwest Nazarene University, and College of Idaho). We will focus on the responses of those who were considering graduate school in psychology (N = 214; sample size varies per question because some participants chose not to respond to all questions). Focusing on respondents who selected a response above the midpoint of the scale, we find that 44 out of 212 respondents expressed an interest in pursuing a Ph.D. in human factors psychology. This number grows considerably larger when we look at the likelihood of students to apply and to attend the University of Idaho if funding were available to cover tuition and living expenses: 107 out of 213 would apply and 100 out of 212 would attend if accepted.

These numbers may be a bit inflated as it included participants who are primarily interested in a master's degree. If we focus on the 102 respondents who plan on pursuing a doctorate, we find that 37 out of 101 reported interest in pursuing a Ph.D. in human factors psychology. In addition, 59 out of 102 would apply and 56 out of 102 would attend the University of Idaho if funding were provided to cover tuition and living expenses.

Our survey results are encouraging as a sufficient number of students appear interested in pursuing a doctorate in human factors psychology. Similar to our master's program, we also expect to recruit applicants from nearby states (e.g., Washington, Utah, Montana), so there appears to be a sufficient applicant pool to generate 2-3 high quality doctoral students a year.

In addition, our experience recruiting students to our master's program also suggests that there is sufficient demand to generate 2-3 high quality doctoral students a year. Every year,

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one to two applicants to our master's program are lost to doctoral programs in other states. We expect that a number of other high quality applicants never applied because they were focused on doctoral programs. In addition, the number of applicants seeking admission to a Human Factors Ph.D. programs in Psychology was over 350 for the last year data are available (https://www.hfes.org/Web/Students/grad_programs.html), only 18% of those were admitted in those programs. Clearly there is both student demand that nationally and students seeking Experimental Psychology Ph.D. training in Human Factors. We anticipate the pool is more than adequate to allow for the selection of 2-3 highly qualified students for our program each year.

- 9. Enrollment and Graduates.** Using the chart below, provide a realistic estimate of enrollment at the time of program implementation and over three year period based on availability of students meeting the criteria referenced above. Include part-time and full-time (i.e., number of majors or other relevant data) by institution for the proposed program, last three years beginning with the current year and the previous two years. Also, indicate the projected number of graduates and graduation rates.

Discontinuations. Using the chart below include part-time and full-time (i.e., number of majors or other relevant data) by institution for the proposed discontinuation, last three years beginning with the current year and previous two years. Indicate how many students are currently enrolled in the program for the previous two years, to include number of graduates and graduation rates.

Institution	Relevant Enrollment Data			Number of Graduates			Graduate Rate
	1 st Year of Program	Year 1 Previous	Year 2 Previous	Current	Year 1 Previous	Year 2 Previous	
BSU							
ISU							**
LCSC							
UI	2	4	6	--	--	--	*
CSI							
CWI							
EITC							
NIC							

*There is not a current program in place so we do not have current year or previous year data for UI. In the first year we would anticipate enrolling 2 full-time doctoral students with 2-3 additional students per year. The program is a four year program so we would not anticipate graduating anyone with the Ph.D. until the Spring of Year 4 after implementation and would anticipate 2-3 Ph.D. graduates each year under normal circumstances and a slightly higher number (5-6) M.S. graduates. We would anticipate that any student who continued for the Ph.D. after completing their M.S. work would be likely to defend their dissertation and graduate within 2 years of their M.S. thesis defense.

**According to the Idaho State University's Ph.D. program website, the experimental psychology Ph.D. program has not yet generated data, as they are only in the second year of their program and have not made applicant/enrollment data available for their PhD program. However, their Master's program in experimental psychology areas has historically enrolled 2-3 students in the last years for which data are available. This is compared to our enrollments of 4-6 1st year Master's students each year.

10. Will this program reduce enrollments in other programs at your institution? If so, please explain.

The University of Idaho does not offer programs that might typically compete for students with interests in Human Factors. Specifically, programs related to Human Factors Psychology such as Industrial Engineering, Aviation Psychology, Ergonomics, Human Computer Interaction, and Usability are not offered at the University of Idaho and therefore it is unlikely that other programs would see declines in their enrollments. Indeed, we would expect that the Human Factors Ph.D. will actually increase enrollments in our M.S. Psychology program as students would be more likely to continue their education at University of Idaho rather than seek enrollment in M.S./Ph.D. human factors programs nationally.

11. Provide verification of state workforce needs such as job titles requiring this degree. Include State and National Department of Labor research on employment potential.

Using the chart below, indicate the total projected 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 one proposed. Data should be derived from a source that can be validated and must be no more than two years old. *This question is not applicable to requests for discontinuance.*

	Year 1--2015	Year 2--2016	Year 3--2017
Local (Regional)			
State	856 (expected employment)	870 (expected employment)	884 (expected employment)
Nation	6,550 (new openings)	7,860	9,190 (1,330 new openings projected per year until 2020)

- a. Describe the methodology used to determine the projected job openings. If a survey of employment needs was used, please attach a copy of the survey instrument with a summary of results as **Appendix C.**

Labor market projections were obtained from the Idaho Department of Labor website (<http://labor.idaho.gov/workforceglance/>; accessed on 1/28/2013). The occupation, human factors psychologist/engineer, was not listed, so we chose "Engineers, All Other." In 2010, there were 785 jobs in this occupation which is expected to grow to 927 in 2020 for a growth rate of 18.09%.

National market projections were obtained from O*Net OnLine retrieved from <http://www.onetonline.org/link/summary/17-2112.01> on January 30, 2013. In 2010, there were 203,900 people in the "Human Factors" occupations with projected national growth between 2010 and 2020 to be 3-9% for a projected 2020 employment of 217,000. The projected growth in Idaho is twice the expected national growth.

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Human Factors Psychologists are employed in a wide variety of settings, where they can have various titles including Human Factors Psychologist/Researcher/Engineer, Usability Analyst/Engineer, or User Experience Analyst/Designer. Currently within Idaho, graduates of our M.S. program in Human Factors are employed at a variety of companies and government agencies, including INL and the Center for Advanced Energy Studies (Idaho Falls), Hewlett-Packard and the Kohl Group (Boise), and Benchmark Research and Safety (Moscow, Boise). Outside of the state, major employers of HF Psychologists include the government (agencies such as the FAA, NTSB, NHTSA, NRC, DOE), all branches of the military, the nuclear power industry, the aviation industry (e.g., Boeing, Lockheed-Martin) and all of the large information technology companies (e.g., Intel, HP, Apple, Microsoft, Google, Sony).

Our master's students have been successful in securing positions in a variety of industries and the national employment picture for Human Factors specialists is very good. The Department of Labor statistics combines together all psychologists who are not in the subfields of clinical, counseling, school, or industrial-organizational; for this somewhat heterogeneous category of applied psychologists, the mean annual wage in 2010 was \$89,900 (and \$100,790 for those in the "scientific research and development services", which includes HF Psychologists), and employment was projected to increase 14% from 2008 to 2018. According to the Department of Labor sponsored Occupational Information Network (O*NET), the projected growth in 2008-2018 employment for "Psychologists-Other" is listed as "Faster than average (14% to 19%)", and the projected growth in 2008-2018 employment for "Human Factors Engineers and Ergonomists" is likewise listed as "Faster than average (14% to 19%)".

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2012-13 Edition*, Psychologists, on the Internet at <http://www.bls.gov/ooh/life-physical-and-social-science/psychologists.htm> (visited June 27, 2012).

National Data Source: [Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections](#)

State Data Source: [Idaho Commerce & Labor, Research & Analysis Bureau](#)

- b. Describe how the proposed change will act to stimulate the state economy by advancing the field, providing research results, etc.

A doctoral program in human factors will positively impact the state's economy by providing the highest level training in human-machine system integration and usability. Professionals with doctoral training in human factors typically lead research or design teams concerned with ensuring that complex technological systems meet the needs of end-users, promote safety and increase efficiency and productivity. Anyone who has interacted with a poorly designed product or web site has experienced the costs of poor usability. Idaho has a burgeoning high technology sector and this sector in particular benefits from enhanced usability in its products.

- c. Is the program primarily intended to meet needs other than employment needs, if so, please provide a brief rationale.

The increase in energy concerns nationally and advances in technology have increased employment opportunities for individuals with Ph.D.'s in human factors psychology. This increase in employment opportunities is a primary motivating factor for creating the program.

However, the broad training that students in Doctoral Human Factors programs receive also enables them to fulfill a variety of needs in industry. Individuals who are currently employed in Industry benefit from additional graduate training which allows their organizations to be competitive for grant funding and larger industrial contracts.

- 12. Will any type of distance education technology be utilized in the delivery of the program on your main campus or to remote sites? Please describe.** *This question is not applicable to requests for discontinuance.*

The current Human Factors focus in the Psychology graduate program includes a significant distance component that would allow students to complete early coursework via distance education (online coursework). This flexibility in course delivery will also maximize student opportunities to collaborate with INL and other industries while they complete internships. In the typical case, the final five semesters of graduate work for the Ph.D. will require students to be on campus for completion of additional coursework (not available online) and thesis and dissertation level research. In particularly exceptional cases, where a student is already employed in industry and has appropriate facilities and support to conduct thesis and dissertation level work, it may be possible for them to complete their graduate degree via distance coursework and research collaborations at their current place of employment. Proposals, defense of final thesis and dissertation work, and preliminary exams would be held on the Moscow campus, but would require no more than a day or two for completion. Lab experience is a key component of graduate level work in Human Factors and all students would be encouraged to take advantage of those experiences available to them.

The current MS distance program involves online coursework and courses provided via streaming video and/or pre-recorded video. This core coursework can all be completed without any requirement to be on the Moscow or any UI campus. In order to complete the comprehensive exams for the Master's degree appropriate arrangements must be made in collaboration with the major professor to arrange for a proctor for these exams. For the PhD, program coursework could be completed similarly via online courses, streaming or pre-recorded video of courses. Additional coursework that is currently not available online, could be easily delivered using streaming video technology. Research requirements for the thesis and dissertation would need to be arranged carefully with the major professor and committee as well as ensuring that appropriate research facilities are available to carry out the proposed work for those students who would not be located on the Moscow campus. The more typical model for students not already employed in a Human Factors capacity, would be that in the last semesters of the program as research becomes the primary focus of the training that students would be present on the Moscow campus for some term (e.g., summer) to work in an appropriate Human Factors lab to gather data and gain critical experience working with the technology that is typical in human factors research.

13. Describe how this request is consistent with the State Board of Education's strategic plan and institution's role and mission. *This question is not applicable to requests for discontinuance.*

The State Board of Education's strategic plan emphasizes the following goals: (1) "a well-educated citizenry," (2) "critical thinking and innovation," and (3) "effective and efficient delivery systems." Our graduate training program recruits many of our students from within Idaho and we expect that the addition of a doctoral program will enhance our ability to recruit in-state students, which is consistent with Goal 1.

In accordance with Goal 2, our faculty and students are actively engaged in applied research on contemporary problems (e.g., improving pedestrian and aviation safety). Our faculty and students have been active in developing collaborations with agencies that will expand research opportunities and funding opportunities (e.g., ongoing research collaborations with INL/CAES and the National Institute for Advanced Transportation (NIATT)). Our doctoral students' research projects and internships will further facilitate these types of collaborations.

Finally, expanding our existing graduate program to include a Ph.D. program meets Goal 3. By adding the doctoral program and maximizing our use of existing resources (e.g., curriculum for the master's program will serve as the foundation) additional costs will be minimal we are providing an effective and efficient method of delivery for a key STEM (Science, Technology, Engineering, and Mathematics) program. Human Factors Psychology incorporates Psychology, Engineering, and Technology and provides a unique intersection of STEM disciplines. This type of program provides STEM discipline emphasis, but also applications of STEM education in the highly employable field of Human Factors. Further, some of our master's students who would otherwise leave our program to attend doctoral programs elsewhere will stay and the time and resources spent training them can be applied toward research and projects that benefit the university and state. Doctoral students could also help us meet instructional needs at the undergraduate level and assist on grants.

14. Describe how this request fits with the institution's vision and/or strategic plan. *This question is not applicable to requests for discontinuance.*

The University of Idaho's strategic plan emphasizes the following goals: (1) "Enable student success in a rapidly changing world", (2) "Promote excellence in scholarship and creative activity to enhance life today and prepare us for tomorrow", and (3) "Meet society's critical needs by engaging in mutually beneficial partnerships." Our graduate training program meets all three of these goals. In accord with Goals 1 and 2, our faculty and students are actively engaged in applied research on contemporary problems (e.g., improving pedestrian and aviation safety). Moreover, in accord with Goal 3, our faculty and students have been actively and successfully developing collaborations with both private industry and public agencies (e.g., ongoing research collaborations with INL/CAES and with Nissan Corporation on how to minimize pedestrian risk associated with quieter electric cars). Our doctoral students' research projects and internships will further facilitate these types of collaborations. Finally, our cross-listing of courses (across departments and universities) and our involvement in the Neuroscience program support the interdisciplinary activity emphasized in UI's Strategic Plan.

Goals of Institution Strategic Mission	Proposed Program Plans to Achieve the Goal
Enable student success in a rapidly changing world.	Our faculty and students engage in curriculum and research that actively engages in understanding how changing technology impacts current thinking about human factors. For example, the increase in hybrid vehicles and decreased car noise has direct impact on pedestrian safety.
Promote excellence in scholarship and creative activity to enhance life today and prepare us for tomorrow.	Our faculty and students have pursued research on topics that are directly applicable to contemporary problems (e.g., improving pedestrian and aviation safety). Our students routinely present their work at the Human Factors and Ergonomics Society conference and our faculty members publish in peer reviewed journals to disseminate the important work conducted in the University of Idaho Human Factors laboratories.
Meet society's critical needs by engaging in mutually beneficial partnerships.	Our faculty and students have been actively and successfully developing collaborations with both private industry and public agencies (e.g., ongoing research collaborations with INL/CAES and with Nissan Corporation on how to minimize pedestrian risk associated with quieter electric cars). Our faculty are also collaborating with NIATT and the Alaska Department of Transportation and generating new collaborative opportunities with the Idaho Department of Transportation. Our doctoral students' research projects and internships will further facilitate these types of collaborations.

15. Is the proposed program in your institution's Five-Year plan? Indicate below. *This question is not applicable to requests for discontinuance.*

Yes x No

The proposed program, a Ph.D. in Experimental Psychology, is listed on the current five-year plan and has been on the State Board 8 year plan (later 5 year plan) since 2006. This timeline has provided us with the time required to develop a strong, competitive, and economically viable program.

The proposed program, a PhD in Experimental Psychology was on the State of Idaho Board of Education plan as early as August of 2006. When ISU forwarded their proposal for the Experimental Psychology program, our response reiterated our intent to continue to pursue the Human Factors psychology specialization as planned. We have been continuously on the 8 year plan (and later the 5 year plan) to propose this program. At every point we have made it clear that we have carefully invested resources and energy to meet the suggestions and recommendations to be able to deliver such a program successfully. Our strategy has been a cautious one. We have built a robust Master's level program in Psychology with a focus on Human Factors and took the time to do so in an economically sustainable way prior to adding the PhD program. It is only after this cautious planning and

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responsiveness to feedback at every level, that we are proposing a carefully thought out PhD in Experimental Psychology.

In 2009, an external review of our program was conducted and the reviewers were particularly asked about the appropriateness of our continuing to pursue the PhD in Experimental Psychology program and reported that this plan was favorable. In anticipation of this proposal, we made strategic hires in the area of Human Factors that would best serve the proposed program. We have invested resources to develop labs that would serve not only as appropriate training facilities but also state of the art research facilities so that we would be competitive for external funding and contracts to fund our students and serve the state.

16. Explain how students are going to learn about this program and where students are going to be recruited from (i.e., within institution, out-of-state, internationally). *For requests to discontinue a program, how will continuing students be advised of impending changes and consulted about options or alternatives for attaining their educational goals?*

The initial focus of the program will be on recruiting applicants from in-state and the nearby region. Information about the program will be distributed to universities within the state and region. Depending on available funding, we will also plan some recruiting trips to universities in the state and region to inform students about the field of human factors and the opportunities at the University of Idaho. Within the university, we will publicize the program to our majors and other related majors through class presentations, brochures, and the advising process. Finally, program information will be added to the website of the Human Factors and Ergonomic Society (HFES). HFES maintains a list of graduate programs and this resource is widely used by students to identify appropriate programs.

17. 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 D**.

External Review attached in Appendix D.

18. **Program Resource Requirements.** Using the Excel spreadsheet provided by the Office of the State Board of Education indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first three 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 budget explanations below. 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 the proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

a. Personnel Costs**Faculty and Staff Expenditures**

Project for the first three years of the program the credit hours to be generated by each faculty member (full-time and part-time), graduate assistant, and other instructional personnel. Also indicate salaries. After total student credit hours, convert to an FTE student basis. Please provide totals for each of the three years presented. Salaries and FTE students should reflect amounts shown on budget schedule.

As of February 2013, the Department of Psychology and Communication Studies has 14 full-time board-appointed faculty members on our Moscow campus; 12 of whom are dedicated to the psychology program, and 5 of those 12 will have teaching and research emphases in Human Factors Psychology. Our faculty research interests cover a wide range of topics in Human Factors (e.g., visual perception and spatial cognition, pedestrian and vehicular safety, human-computer interaction, automated alarm systems, virtual aviation displays), which will provide students with excellent research training in these areas.

Training doctoral students will only minimally increase faculty workloads and allow them to gain maximum use of their laboratory equipment and facilities. There will be no increase in the number of courses each faculty member teaches per semester. We anticipate each faculty member in our HF program to be the major advisor for at most 5 graduate students at a time (3 master's level and 2 doctoral students) at a time. Our admissions standards will be selective, ensuring that we have high quality doctoral students who have the potential to enhance faculty research programs. Moreover, our advanced doctoral students will be able to help teach our undergraduates and mentor newer graduate students.

The department has an administrative assistant and financial technician on staff who would be able to provide support for the anticipated 2-3 additional students per year or a total of 10 additional graduate students.

Year 1

Name, Position & Rank	Annual Salary Rate	FTE Assignment to this Program*	Projected Graduate Student Credit Hours	Projected Ph.D. Student Credit Hours	FTE Ph.D. Students
Benjamin Barton, Assistant Professor	\$56,118	.50	45	6	.25
Rajal Cohen, Assistant Professor	\$63,003	.50	52	12	.5
Brian Dyre, Associate Professor	\$62,337	.65	75	6	.25

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Russell Jackson, Assistant Professor	\$65,000	.60	39	6	.25
Steffen Werner, Associate Professor	\$68,598	.60	91	12	.5
Todd Thorsteinson, Professor	\$69,908	.25	21	6	.25

Year 2

Name, Position & Rank	Annual Salary Rate	FTE Assignmen t to this Program*	Projected Graduate Student Credit Hours	Projected Ph.D. Student Credit Hours	FTE Ph.D. Studen ts
Benjamin Barton, Assistant Professor	\$56,118	.50	45	6	.25
Rajal Cohen, Assistant Professor	\$63,003	.50	64	24	1
Brian Dyre, Associate Professor	\$62,337	.65	81	12	.5
Russell Jackson, Assistant Professor	\$65,000	.60	51	18	.75
Steffen Werner, Associate Professor	\$68,598	.60	109	30	1.25
Todd Thorsteinson, Professor	\$69,908	.25	21	6	.25

Year 3

Name, Position & Rank	Annual Salary Rate	FTE Assignmen t to this Program*	Projected Graduate Student Credit Hours	Projected Ph.D. Student Credit Hours	FTE Ph.D. Studen ts
Benjamin Barton, Assistant Professor	\$56,118	.50	69	30	1.25
Rajal Cohen, Assistant Professor	\$63,003	.50	64	24	1
Brian Dyre, Associate Professor	\$62,337	.65	93	24	1
Russell Jackson, Assistant Professor	\$65,000	.60	63	30	1.25
Steffen Werner, Associate Professor	\$68,598	.60	109	30	1.25
Todd Thorsteinson, Professor	\$69,908	.25	21	6	.25

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*Note: Faculty FTE is for the Human Factors graduate program inclusive of both the existing Master's program and the proposed extension of the existing graduate program to offer the Ph.D.. That is, the effort devoted only to the Ph.D. program would be difficult to disentangle from the effort for the M.S. program in terms of advising or research. Projected credit hours are per year and based on the assumption that a faculty member would oversee 1-2 graduate students generating thesis/dissertation credit hours or research credit hours in addition to the credits generated by taking core coursework. The distribution of students across faculty should be relatively even, though for the purposes of this table the even distribution of students across faculty would not be evident until the third or fourth year. Faculty members with a higher FTE are those who are more involved in our distance education program.

Project the need and cost for support personnel and any other personnel expenditures for the first three years of the program.

Administrative Expenditures

Describe the proposed administrative structure necessary to ensure program success and the cost of that support. Include a statement concerning the involvement of other departments, colleges, or other institutions and the estimated cost of their involvement in the proposed program

Name, Position & Rank	Annual Salary Rate	FTE Assignment to this Program	Value of FTE Effort to this Program

Our current administrative structure is sufficient to support the addition of 2-3 per year for a total of 10 additional graduate students to our program. The budget below anticipates this funding level for on-campus students. Students who take courses online, will not have assistantships or tuition waivers. We anticipate online PhD students to be rare rather than normative.

Additional assistantship funding is typically provided to graduate students in return for teaching or research assistantships at 20 hours per week during the academic year (\$10,500 per student per year). We would provide this level of funding to students in the PhD program.

In order to attract high quality Ph.D. students we will need to provide tuition and fee waivers or cover these expenses (\$7,162 per student per academic year). In addition, summer funding would allow students to complete necessary research during the summer months to ensure an on-time graduation in the fourth year (\$3,640 per student per summer).

We anticipate accepting 2-3 students each year into the Ph.D. program. We intend to use department F&A return, grant funding, and cooperative internships to cover some of these expenses when possible and rely on outreach revenue to cover the remainder of these costs.

Operating Expenditures

Briefly explain the need and cost for operating expenditures (travel, professional services, etc.)

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We typically provide graduate students with funds to travel to conferences and disseminate their work. Indeed the HFES meeting each year is a key employment networking opportunity for students. We currently fund this for our master's students in their second year. However, Ph.D. students will need funds to attend this and other conferences for four years. Finally, we hope to use some of the travel money to fund recruiting trips in the early years of the program to build our applicant pool for the Ph.D. and existing M.S. Human Factors programs. Again, grant funding could feasibly offset some of this expense, but the remainder would need to be covered by the department through outreach revenue or grant F&A returned to the department.

Over the longer term, we anticipate some advanced doctoral students teaching sections of certain courses independently or securing (and helping our faculty to secure) additional external funding. In summary, we will be able to provide competitive funding and quality training to doctoral students with our current staffing and funding levels.

However, if outreach revenue is redistributed within the University or College additional funds would be needed to fund graduate assistantships and tuition and fees for doctoral students.

b. Capital Outlay

(1) Library resources

- (a) Evaluate library resources, including personnel and space. Are they adequate for the operation of the present program? If not, explain the action necessary to ensure program success.

The current library resources are sufficient to meet the needs of our program and the anticipated addition of a Ph.D. program. We are requesting additional funding for the library in the budget to offset the costs associated with continuing to provide the necessary journal subscriptions to our faculty and students as costs of electronic journals continues to increase.

- (b) Indicate the costs for the proposed program including personnel, space, equipment, monographs, journals, and materials required for the program.

We currently have over 2,400 square feet across five laboratories dedicated to Human Factors Research.

Department of Psychology and Communication Studies **Human Factors Program Lab Space Information**

Lab Name	Location	Square Footage	Contact Name
Idaho Child Safety Lab	Forney 003	226 sq. ft.	Barton, Ben
Mind in Movement Laboratory	Forney 001	370 sq. ft.	Cohen, Rajal
Visual Psychophysics Lab & General Lab Space	SHC 016D, SHC 005, SHC 008	470 sq. ft.	Dyre, Brian
Evolved Navigation Lab	SHC 014	390 sq. ft.	Jackson, Russell
Cognitive Lab	SHC 009	279 sq. ft.	Werner, Steffen
Driving & Flight Simulation Lab	Memorial Gym B46A	700 sq. ft.	Werner, Steffen Dyre, Brian

- (c) For off-campus programs, clearly indicate how the library resources are to be provided.
Our distance program students make use of the digital collections provided by the University of Idaho Moscow campus library. The vast majority of literature relevant to HF research is available digitally.

(2) Equipment/Instruments

Describe the need for any laboratory instruments, computer(s), or other equipment. List equipment, which is presently available and any equipment (and cost) which must be obtained to support the proposed program.

The department currently has over 2,000 square feet of lab space providing access to cutting edge technology and sophisticated equipment used in human factors research. The department also has a graduate student space with computers available to students for data analysis and typical office functions.

Human Factors Simulation Lab housed in B46A Memorial Gym measures 700 sq ft.

Bay 1 of the simulation lab hosts the Driving Simulator

NADS (National Advanced Driving Simulator, U of Iowa) seven channel MiniSim driving simulator (3 forward view, 1 dashboard display, 3 rear view mirrors)

- Total forward field-of-view 135° (front-projection screens)
- 3 high-resolution data projectors for the forward view
- 1 fully instrumented Chevy S10 cab with 3D sound
- 3 LCD displays for dash display and side mirrors
- Pedals for breaking and acceleration
- Steering wheel with switches and gear shifter
- 1 60" Plasma screen for the center rear view or alternatively
- 1 "Flight Seat" with controls suitable for aviation simulation
- 1 host PC for simulation control using our in-house-developed ViEWER simulator software using the same front projection setup

Bay 2 of the simulation lab is set aside to be equipped with

- 1 Process control simulation station (for INL Alarm Dashboard project)
- 3 large-screen monitors and 1 server running the process control simulation software currently developed in house (to be installed Spring 2013).

Lab also includes:

- 5 PCs for office applications (data analysis, manuscript writing)
 - Apparatus for "Human Water Maze" for spatial cognition experiments
- **016D SHS** (~250 square feet, painted flat black with black carpeting to control reflections for visual psychophysics experiments) contains the Flight simulator with high-resolution 90 degree FOV (two 54" diagonal rear-projection enclosures with NEC high-resolution/fast phosphor CRT projectors)

- 2 large (60" diagonal) rear projection cabinets with high-resolution and fast-phosphor NEC CRT projectors (1 of which is currently inoperable).
 - 2 graphics workstations capable of generating high quality 3D graphics for our simulations
 - 1 host computer for controlling simulations
 - 1 ASL head mounted eye-head tracking system that also can be used for measurement of pupil diameter with its own dedicated computer
 - Sensors and amplifiers for monitoring heart rate, breathing rate, and skin conductance (on loan from WSU psych department due to my adjunct status there)
 - 1 file server with redundant back-up systems
 - 1 height-adjustable participant seat with various controls (joysticks, steering wheels, etc.)
 - Flock of Birds magnetic head tracking system and IS-300 3DOF inertial tracking system.
- **The Idaho Child Safety Lab** in Forney Hall 003 is housed in a 226 square foot lab space that contains both eye-tracking technology and a sound booth for auditory studies.
 - Eye tracking: ASL EYE-TRAC6 System with remote desk-mounted tracking. The system uses an infrared beam to track head position so that the person doesn't have to lock their head into a device to hold it still.
 - Sound booth: 4x4 feet, lined with fabric for visual isolation, insulated with foam and fabric sound-deadening material, equipped with two 5-inch powered studio monitors, sound is controlled externally by the researcher. The idea is that the person is placed in a semi-isolated environment so that they can experience traffic sounds (or other auditory stimuli), and we can measure physiological reactions, self-reports, etc.
 - In addition this lab includes technology allowing for the measurement of heart rate and electrodermal response.
 - Several GPS trackers for use in real-world behavioral data collection
- **Cognition and Usability Lab** is located in SHC 009 Student Health Center, a 279 square foot mixed lab/office space. The cognition and usability lab will be structurally divided into a usability lab (approximately 120 square feet) containing:
 - 1 Wacom Cintiq 24" graphics tablet with multi-touch capability
 - 2 iMac 24" personal computers
 - 1 Tobii eye-tracker (pending purchase)
 - 1 Windows computer workstation running ePrime II for time-critical experiments.
 - The remaining 150 square feet are going to be used as graduate student office space and meeting space
- **The Evolved Navigation Lab** is a 390 sq. ft. space in Student Health Center Room 014 featuring immersive single-user virtual reality capacities. The lab houses a 4 camera PPTX and InertiaCube system with an NVIS SX60 Head Mounted Display. The PPTX machine runs Vizard software and the rendering computer is a liquid-cooled machine with a solid state drive and state of the art graphics capacities. Users receive 60 degree field of view with integrated sound across virtual environments. Additionally this lab has a Kaiser PV-60 head-mounted stereo display (FOV 45 degrees) and Intersense 300

head tracking.

- A 279 square foot **Mind in Motion laboratory** facility The focus of the Mind in Motion Laboratory is to investigate how cognitive abilities (and cognitive deficits) influence movement and posture. The lab includes a large open space equipped with an 8-camera Vicon Bonita motion capture system and the Motion Monitor integration package. This combined system allows us to (1) collect three-dimensional position data from passive reflective markers on the body; (2) accurately identify the reflective markers in real time to generate a model of the human body in motion; (3) seamlessly integrate and synchronize of data from future equipment purchases (such as force plates, accelerometers, electromyography, and biofeedback). It also (4) allows students working in my lab to collect and analyze data without spending years learning to program computers, thus freeing up more of their time to focus on learning about science.
- All Labs contain PCs for data analysis and manuscript preparation. Multiple high-performance graphics workstations for the development of synthetic environments

d. Revenue Sources

- (1) 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?

We currently have 5 full-time faculty members who offer coursework in the graduate program and mentor graduate students. This effort would continue and the addition of 2 more students per year to courses would not significantly impact their workload. In addition, faculty already provide advising and mentorship to graduate students and this would continue for two additional years for Ph.D. students. Again, this would not significantly impact allocation of time for faculty. Salaries are already allocated in the amount of \$315,000 for these lines and there is no foreseeable need for an increase in this amount nor a significant redistribution of labor for these faculty members based on the addition of the Ph.D. Program. As noted in item 18.b.1, an additional \$2,000 would need to be reallocated to the University of Idaho library for capital outlay each year.

- (2) If the funding is to come from other sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when funding ends?

Currently, all of our on-campus graduate students are fully funded through a combination of sources, including graduate teaching assistants funded by our College, research assistantships funded through grants and paid internships, and assistantships provided by departmental funds generated by faculty research and outreach activities. These resources will be sufficient to fully fund the number of Ph.D. students that we expect to admit over the next few years. Ph.D. students would need to have tuition and fees covered and this can be managed with generated revenue from outreach courses and faculty research grants. We do not anticipate a decline or end to outreach revenue, though our ability to support students will rely on the continued distribution of funds to departments or equivalent budget lines to the department. Funding and training Ph.D. level graduate students is a priority for many federal grants and the addition of a graduate program would make our faculty more

competitive for these awards.

- (3) 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.

This program does not require an MCO appropriation as proposed.

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

While, faculty grant funding will off-set the costs for the proposed Ph.D. program and the existing M.S. program in human factors, the program is not entirely reliant on these funds and could support the program with current resources and outreach revenue. Currently, we have three grants or contracts funding four students in the program through partial assistantships and in some cases funds covering tuition and fees.

- (5) Provide estimated fees for any proposed professional or self-support program.
The program being proposed does not fit a professional or self-support graduate program model, but rather a more traditional model in which graduate student support and tuition would be paid by the institution. However, the students currently in the distance program are part-time students who pay tuition and fees for their coursework and do not receive assistantships or other funding from the institution.

Program Resource Requirements. Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first three 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 the proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

I. PLANNED STUDENT ENROLLMENT

	FY	15	FY	16	FY	17	FY	18	Cumulative Total	
	FTE	Headcount	FTE	Headcount	FTE	Headcount	FTE	Headcount	FTE	Headcount
A. New enrollments	2	2	2	2	3	3	3	3	10	10
B. Shifting enrollments	0	0	0	0	0	0	0	0	0	0

II. REVENUE

	FY	15	FY	16	FY	17	FY	18	Cumulative Total	
	On-going	One-time	On-going	One-time	On-going	One-time	On-going	One-time	On-going	One-time
1. Appropriated (Reallocation)*	\$274,846.70		\$274,846.70		\$274,846.70		\$274,846.70		\$1,099,386.80	\$0.00
2. Appropriated (New)									\$0.00	\$0.00
3. Federal									\$0.00	\$0.00
4. Tuition	\$14,324.00		\$28,648.00		\$100,268.00		\$143,240.00		\$286,480.00	\$0.00
5. Student Fees									\$0.00	\$0.00
6. Other (Specify): Outreach Revenue [#]	\$31,500.00		\$62,500.00		\$108,100.00		\$154,000.00		\$356,100.00	\$0.00
Total Revenue	\$320,670.70	\$0.00	\$365,994.70	\$0.00	\$483,214.70	\$0.00	\$572,086.70	\$0.00	\$1,741,966.80	\$0.00

*Note: All except \$2,000 requested (for capital outlay funding for the library) of these funds are already allocated to existing and filled faculty lines. In addition, the outreach revenue is generated by the BS program and will come from other budgets that support assistantships.

FY18 would be the full capacity of the program and the revenue and expenditures in subsequent years would not be significantly higher in today's dollars.

Ongoing is defined as ongoing operating budget for the program which will become part of the base.

One-time is defined as one-time funding in a fiscal year and not part of the base.

III. EXPENDITURES

ATTACHMENT 1									
	FY	15	FY	16	FY	17	FY	18	Cumulative Total
	On-going	One-time	On-going	One-time	On-going	One-time	On-going	One-time	On-going One-time
A. Personnel Costs									
1. FTE									\$0.00 \$0.00
2. Faculty (Existing Lines)*	\$197,715.00		\$197,715.00		\$197,715.00		\$197,715.00		\$790,860.00 \$0.00
<i>*Note: These funds are already allocated to existing and filled faculty lines.</i>									
3. Administrators									\$0.00 \$0.00
4. Adjunct Faculty									\$0.00 \$0.00
5. Instructional Assistants									\$0.00 \$0.00
6. Research Personnel									\$0.00 \$0.00
7. Support Personnel									\$0.00 \$0.00
8. Fringe Benefits	\$75,996.90		\$76,862.10		\$78,159.90		\$79,457.70		\$310,476.60 \$0.00
9. Other: Tuition Waivers	\$14,324.00		\$28,648.00		\$100,268.00		\$143,240.00		\$286,480.00
Grad. Assistantships	\$21,000.00		\$42,000.00		\$73,500.00		\$105,000.00		\$241,500.00
Summer Grad Support	\$7,280.00		\$14,560.00		\$25,480.00		\$36,400.00		\$83,720.00
9. Other:	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00 \$0.00
Total FTE Personnel and Costs	\$316,315.90	\$0.00	\$359,785.10	\$0.00	\$475,122.90	\$0.00	\$561,812.70	\$0.00	\$1,713,036.60 \$0.00

FY	15	FY	16	FY	17	FY	18	Cumulative Total
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	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	\$2,000.00		\$4,000.00		\$6,000.00		\$8,000.00		\$20,000.00	\$0.00
2. Professional Services									\$0.00	\$0.00
3. Other Services									\$0.00	\$0.00
4. Communications									\$0.00	\$0.00
5. Utilities									\$0.00	\$0.00
6. Materials and Supplies									\$0.00	\$0.00
7. Rentals									\$0.00	\$0.00
8. Repairs & Maintenance									\$0.00	\$0.00
9. Materials & Goods for Manufacture & Resale									\$0.00	\$0.00
10. Miscellaneous									\$0.00	\$0.00
Total Operating Expenditures	\$2,000.00	\$0.00	\$4,000.00	\$0.00	\$6,000.00	\$0.00	\$8,000.00	\$0.00	\$12,000.00	\$0.00
	FY	15	FY	16	FY	17	FY	18	Cumulative Total	
C. Capital Outlay										
1. Library Resources	\$2,000.00		\$2,000.00		\$2,000.00		\$2,000.00		\$8,000.00	\$0.00
2. Equipment									\$0.00	\$0.00
Total Capital Outlay	\$2,000.00	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$0.00	\$8,000.00	\$0.00
D. Capital Facilities										
E. Indirect Costs (overhead)										
TOTAL EXPENDITURES:	\$320,315.90	\$0.00	\$365,785.10	\$0.00	\$483,122.90	\$0.00	\$571,812.70	\$0.00	\$1,741,036.60	\$0.00
Net Income (Deficit)	\$354.80	\$0.00	\$209.60	\$0.00	\$91.80	\$0.00	\$274.00	\$0.00	\$930.20	\$0.00

Appendix A – Proposed Curriculum

NOTE: Total required credits = 78; maximum # 400-level credits = 26; maximum # PSYC 600 credits = 45.

Category	Number	Course	Institution	Credits
Quantitative Requirement	PSYC 512	Research Methods	UI	3
Quantitative Requirement	PSYC 513	Advanced Research Methods	UI	3
Quantitative Requirement	STAT 431	Statistical Analysis	UI	3
Total				9
Category	Number	Course	Institution	Credits
PSYC Requirement	PSYC 444	Sensation and Perception	UI	3
PSYC Requirement	PSYC 446	Engineering Psychology	UI	3
PSYC Requirement	PSYC 509	Human Factors in Engineering Design	UI	3
PSYC Requirement	PSYC 525	Cognitive Psychology	UI	3
PSYC Requirement	PSYC 526	Cognitive Neuroscience	UI	3
PSYC Requirement	PSYC 552	Ergonomics & Biomechanics	UI	3
PSYC Requirement	PSYC 561	Human-Computer Interaction	UI	3
PSYC Requirement	PSYC 562	Advanced Human Factors	UI	3
PSYC Requirement	PSYC 504	ST: Topics in Human Factors	UI	8
Total				32
Category	Number	Course	Institution	Credits
M.S. Research Requirement	PSYC 500	Master's Thesis	UI	6
Ph.D. Research Requirement	PSYC 599	Research	UI	3
Ph.D. Research Requirement	PSYC 600	Dissertation	UI	16
Total				25
Category	Number	Course	Institution	Credits
PSYC Elective	PSYC 430	Tests and Measurements	UI	3
PSYC Elective	PSYC 440	Psychology of Judgment & Decision Making	UI	3
PSYC Elective	PSYC 516	Industrial-Organizational Psychology		3
PSYC Elective	PSYC 598	Internship	UI	

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	PSYC			3
PSYC Elective	504	Neuroergonomics	UI	
	PSYC			3
PSYC Elective	598	Internship	UI	
Non-PSYC Elective	BUS 412	Human Resource Management	UI	3
		Leadership and Organizational		3
Non-PSYC Elective	BUS 413	Behavior	UI	
Non-PSYC Elective	BUS 530	Managing Technical Teams	UI	3
	STAT	Design for Six Sigma and Lean		3
Non-PSYC Elective	511	Management	UI	
	STAT			3
Non-PSYC Elective	516	Applied Regression Modeling	UI	
	STAT			3
Non-PSYC Elective	519	Multivariate Analysis	UI	
Non-PSYC Elective	BUS 551	Managing Scientific Projects	UI	3
Non-PSYC Elective	BUS 552	Management of Scientific Innovation	UI	3
	ADOL	Foundations of Human Resource		3
Non-PSYC Elective	510	Development	UI	
	ADOL			3
Non-PSYC Elective	577	Organization Development	UI	
Non-PSYC Elective	PEP 510	Motor Control	UI	3
Non-PSYC Elective	PEP 518	Advanced Physiology of Exercise	UI	3
Non-PSYC Elective	TM 552	Industrial Ergonomics	UI	3

Survey on Human Factors Psychology

The University of Idaho Institutional Review Board has certified this project as Exempt.

The Department of Psychology and Communication Studies at the University of Idaho is investigating whether to add a doctoral program in human factors psychology. The purpose of this survey is to gather information about the potential interest in this program. The survey will take approximately 5-10 minutes to complete. It consists of questions about your plans to go to graduate school and your interest in human factors psychology. There are no risks to this study beyond what would be encountered in daily life.

Your responses to the survey will be anonymous. No identifying information will be associated with your responses. Your participation in this survey is voluntary and you may withdraw from the survey at any time. If you have any questions about the survey, you may contact Dr. Todd Thorsteinson (tthorste@uidaho.edu; 208-885-4944)

If you are at least 18 years of age and agree to participate in the survey, please click on “Next to start the survey.

[Numbers next to the responses are frequencies; 298 respondents]

1. Are you a psychology major?
222 Yes 76 No
2. What year are you?
27 Freshman
67 Sophomore
86 Junior
113 Senior
5 Other
3. What is your gender?
221 Female
76 Male
1 Prefer not to respond
4. Are you a current resident of Idaho?
207 Yes
91 No
5. Are you familiar with the field of human factors psychology? [Mean = 2.50]

Very familiar	Familiar	Somewhat	A little	Never heard of it
5 [10]	4 [40]	3 [107]	2 [71]	1 [69]

6. Are you planning on attending graduate school in psychology?

139 Yes

84 No [If participants selected "No," they skipped to the last question,

Question 12]

75 Unsure

7. What graduate degree are you interested in pursuing? (check all that apply)

155 master's degree

102 a doctoral degree

34 unsure

Human factors applies psychological knowledge about human perception, cognition, and social interactions to a range of topics – like product design, human performance and human error, human-machine and human-computer interaction, interface design, safety, and ergonomics. Human factors researchers and user experience engineers try to improve the ways that people interact with products and environments.

8. How interested are you in human factors as a career? [Mean = 3.77]

Not at all						Extremely
1 [17]	2 [37]	3 [38]	4 [48]	5 [45]	6 [14]	interested
						7 [14]

9. How interested are you in pursuing a master's degree in human factors psychology?

[Mean = 3.34]

Not at all						Extremely
1 [32]	2 [52]	3 [28]	4 [45]	5 [33]	6 [14]	interested
						7 [9]

10. How interested are you in pursuing a doctoral degree (i.e., a Ph.D.) in human factors psychology?

[Mean = 2.88]

Not at all						Extremely
1 [58]	2 [52]	3 [27]	4 [31]	5 [26]	6 [12]	interested
						7 [6]

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11. If the University of Idaho offered a Ph.D. in human factors psychology and provided funding that covered your tuition and basic living expenses...

	Not at all likely						Extremely likely
What is the likelihood that you would apply to the program? [Mean = 4.31]	[21] 1	[32] 2	[31] 3	[22] 4	[33] 5	[32] 6	[42] 7
What is the likelihood that you would attend? [Mean = 4.16]	[22] 1	[39] 2	[29] 3	[22] 4	[32] 5	[30] 6	[38] 7

12. What university are you currently attending?

- _____
- [111] = Brigham Young University – Idaho]
 - [69] = Northwest Nazarene University]
 - [58] = Idaho State University]
 - [53] = University of Idaho]
 - [5] = College of Idaho]
 - [1] = Other]
 - [1] = Not reported]

Thank you for your participation!

Appendix C
Employment Needs Survey

We did not use a survey instrument to assess employment needs to generate the reported data.

Appendix D
Recommendations for External Reviewers

Below is a list of external reviewer suggestions in order of our preference and suitability for reviewing our program, though all on the list would be able to provide valuable insight into the viability of our proposal. Their biographical sketches follow this page in order of preference.

1. Patricia DeLucia, Department of Psychology, Texas Tech University, Lubbock, TX (currently the Chair of the HFES accreditation committee)
2. Christopher Wickens, Professor Emeritus from the University of Illinois Department of Psychology, Adjunct Professor University of Colorado Department of Psychology, and Senior Scientist at AlionSciences Company Boulder, CO
3. John Flach, Chair, Department of Psychology, Wright State University, Dayton OH (Wright State has a very good Ph.D. program in Human Factors)
4. Douglas Gillan, Head, Department of Psychology, North Carolina State University, Raleigh, NC
5. Mark Scerbo, Professor, Department of Psychology, Old Dominion University, Norfolk, VA
6. David Strayer, Professor, Department of Cognition and Neuroscience, University of Utah, Salt Lake City, UT
7. Thomas Dingus, Director of Virginia Tech Transportation Institute, Virginia Tech, Blacksburg, VA

David Strayer and John Flach completed the review in the Fall of 2013 and that review is attached here as Appendix D.

Patricia DeLucia, Ph.D.
Chair of HFES Accreditation Committee

Patricia DeLucia received her PhD from Columbia University in 1989 and completed her postdoctoral work at Wright Patterson Air Force Base in 1991. She is currently a professor at Texas Tech University and coordinator of their human factors psychology program. On the basis of her outstanding contributions to the field of human factors psychology, she was elected a fellow of both the Human Factors and Ergonomics Society (HFES) and the American Psychological Association (APA). In 2010-2011, she served as president of Division 21 (Applied Experimental and Engineering Psychology) of the American Psychological Association. She currently serves as the Chair of the Accreditation Committee for the Human Factors and Ergonomics Society, is an Associate Editor of *Human Factors* (one of the leading journals in the field), and is on the editorial board for the *Journal of Experimental Psychology: Applied*.

Her research program has resulted in over 30 publications focusing on theoretical and applied issues in visual perception and human factors. Her interests include (a) the perception of collision, motion, and depth with applications to transportation (e.g., driving and aviation), health care (e.g., minimally invasive surgery), military (e.g., night vision goggles), and sport (e.g., umpiring), and (b) human factors in health care (e.g., patient safety).

Positions:

Professor, Department of Psychology; Coordinator of the Human Factors Psychology Program; Adjunct Professor, School of Nursing.

Education:

Ph.D., 1989, Columbia University; National Research Council postdoctoral associateship, Wright Patterson Air Force Base, 1989-1991

Contact:

Phone: (806) 742-3711, ext. 259

Fax: (806) 742-0818

Email: pat.delucia@ttu.edu

Web site: [Web site](#)

Program site: [Human Factors Psychology Program](#)

- DeLucia, P. R. (in press) Effects of size on collision perception and implications for perceptual theory and transportation safety. *Current Directions in Psychological Science*.
- Klein, M. I., DeLucia, P. R., & Olmstead, R. (in press) The impact of visual scanning in the laparoscopic environment after engaging in strain coping. *Human Factors*.
- DeLucia, P. R. (in press). Three-dimensional Mueller-Lyer Illusion: Theoretical and Practical Implications. In A. Shapiro and D. Todorovic (eds.) *The Oxford Compendium of Visual Illusions* (Oxford University Press).
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- Brendel, E., DeLucia, P. R., Hecht, H., Stacy, R.L, & Larsen, J. T. (2012). Threatening pictures induce shortened time-to-contact estimates. *Attention, Perception & Psychophysics*, 74, 979-987.
- DeLucia, P. R. (Ed.) (2011). *Reviews of Human Factors and Ergonomics, Volume 7*. Santa Monica, CA: Human Factors and Ergonomics Society.
- DeLucia, P. R., & Griswold, J. A. (2011) Effects of camera arrangement on perceptual-motor performance in minimally-invasive surgery. *Journal of Experimental Psychology: Applied*, 17, 210-232.
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Christopher D. Wickens, Ph.D.

Professor Emeritus, Department of Psychology
Professor and Head Emeritus, Aviation Human Factors Division
Associate Director Emeritus, Institute of Aviation
University of Illinois at Urbana-Champaign
Adjunct Professor
University of Colorado
cwickens@alionscience.com

Dr. Wickens is currently working part-time at Alion Science in Boulder, CO.

He received a B.A. from Harvard College in Physical Sciences in 1967. He received a M.A. from the University of Michigan in Psychology in 1969. He completed his Ph.D. under Dick Pew at Ann Arbor in 1974. He rose through the ranks from Assistant Professor to Professor in the Department of Psychology at the University of Illinois at Urbana-Champaign. He was Visiting Professor, Department of Behavioral Sciences & Leadership, U. S. Air Force Academy in 1983-1984, 1991-1992, and 1999-2000.

For over 30 years Chris Wickens' research has focused on the interface between basic research and the applied area of human factors. His research is concerned with two primary themes. From a psychological perspective, one theme has been the study of human attention related to the performance of complex tasks. From a human factors perspective, the second theme relates to the study of how displays and the automation can be used to support the behavior of operators in high- risk systems. Professor Wickens and his students have focused their research interests primarily on aviation vehicle control. Through his career his research has bridged the intersection of these two themes in order to show how basic research in attention can account for human behavior in these complex systems. As a result of his research, he has developed two theories or models of attention: multiple resources theory developed in the early 1980s; and Salience, Effort, Expectancy and Value (SEEV) theory elaborating the selective aspects of attention in the late 1990s and early 2000s.

Wickens' research is internationally recognized. He has been invited to give the keynote address at a number of international conferences. He has supervised 38 Ph.D. theses, 64 master theses and 7 undergraduate honors theses. Many of Wickens' graduate students went on to distinguished interdisciplinary careers in universities, government and industry.

He has authored or co-authored eight books including an introductory text in Psychology, an introduction to human factors engineering and the most widely used advanced textbook in engineering psychology and human performance. Two books on human factors in air traffic control have been published by the National Academy Press. The other three books are concerned with display technology, workload transition and displays. Wickens has published over 200 articles in refereed journals and book chapters.

John M. Flach, Ph.D

Department of Psychology

Wright State University

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john.flach@wright.edu

<http://www.wright.edu/cosm/departments/psychology/faculty/flach.html>

John Flach is a professor of psychology and former chair of the psychology department at Wright State University (from 2004 to 2012). He has been on the faculty at the University of Illinois at Urbana-Champaign, served as adjunct research scientist at the Air Force Research Laboratory at the Wright Patterson Air Force Base, and worked in engineering departments as well as psychology departments.

Since earning his PhD in 1984 from Ohio State University, he has made significant contributions to the field of applied experimental and human factors psychology. He studies issues of coordination and control in cognitive systems. More specifically, his work focuses on visual control of locomotion, graphical interface design, decision-making, manual control, and tactile displays.

Along with numerous articles, he is the author of two books (one on control theory and another on display and interface design) and has published two edited books on ecological approaches to human-machine systems. His book on control theory attempts to introduce the logic and analytical language of control systems to social scientists, whereas his book on display and interface design offers a theoretical context for designing displays to support human problem solving.

Education and Degrees:

Ph.D., Human Experimental Psychology, 1984 The Ohio State University

M.A., Psychology, 1978 University of Dayton

B.A. Psychology, 1975 St. Joseph's College, Indiana

Professional History:

2004(July) – Present Chair, Department of Psychology, Wright State University

2004 (Jan – Mar) Visiting Professor, Departments of Aeronautical, Mechanical, and Industrial Design Engineering, TU Delft (Sabbatical from WSU)

2000 (May - June) Erskine Fellow. University of Canterbury, Christchurch, NZ.

1998 – Present Professor, Department of Psychology, Wright State University

1994 - 1998 Associate Professor, Department of Psychology

Wright State University

1990 – 1996 Adjunct Research Scientist

Air Force Research Laboratory, Wright Patterson AFB

1990 - 1994 Assistant Professor, Department of Psychology

Wright State University

1984 - 1990 Assistant Professor, Department of Mechanical & Industrial

Engineering, Department of Psychology, Institute of Aviation,

University of Illinois at Urbana-Champaign

Selected Journal Articles, Book Chapters, and Published Proceedings

- Flach, J.M., Steele-Johnson, D., Shalin, V.L., Hamilton, G.C. (In press). Coordination and control in emergency response. In A. Badiru & L. Racz (Eds.). *Handbook of Emergency Response: Human Factors and Systems Engineering Approach*, Taylor & Francis.
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- Stanard, T., Flach, J.M., Smith, M.R.H., & Warren, R. (2012). Learning to avoid collisions: A functional state space approach. *Ecological Psychology*, 24:4, 328-360.

Dr. Douglas Gillan

Human Factors & Ergonomics

Professor

*Head of Psychology Department*Email: doug_gillan@ncsu.edu

Phone: 919.515.1715

Douglas Gillan earned a bachelor's degree in psychology from Macalester College (St. Paul, MN) in 1974 and a PhD in experimental psychology from the University of Texas at Austin in 1978. For the two years following his doctorate, he was a National Science Foundation Fellow at Yale University and a Sloan Foundation Fellow at the University of Pennsylvania. He worked in industry for the next 10 years, conducting taste research for General Foods Research Center's Sensory Evaluation Department from 1980 to 1984, then human factors research and development for Lockheed Engineering and Sciences Company at NASA-Johnson Space Center in Houston. In 1989, he returned to academia, working the psychology departments at Rice University, the University of Idaho, New Mexico State University, and North Carolina State University.

He is currently a professor of psychology and head of the psychology department at North Carolina State University. He has served as a department head for nearly 20 years at two universities, both of which have doctoral programs in human factors (New Mexico State University and North Carolina State University). As department head at NC State, he manages 33 faculty members, 120 graduate students, and 750 undergraduate majors.

His numerous publications and presentations have focused on perceptual and cognitive processes in reading graphical displays and human-computer interaction. Based on his significant contributions to the field of human factors, he was elected a fellow of the Human Factors and Ergonomics Society.

Research Interests

Human-computer interaction, knowledge acquisition and representation, information visualization and high level perception

Recent Publications

- Gillan, D. J., & Barraza, P. (2006). A few seconds of equation reading: A process model of equation reading and its applications. In *Proceedings of the Human Factors and Ergonomics Society 50th Annual Meeting*. (pp. 1152 – 1155). Santa Monica, CA: Human Factors and Ergonomics Society.
- Gillan, D. J., & Gillan, C. T. (2006). Effects of motion on the perception of static features in a display. In *Proceedings of the Human Factors and Ergonomics Society 50th Annual Meeting*. (pp. 1585 – 1588). Santa Monica, CA: Human Factors and Ergonomics Society.
- Chadwick, R., Gillan, D. J., Pazuchanics, S. L. (2005). What the robot's camera tells the operator's brain. In N. Cooke, H. Pringle, H. Pedersen, and O. Conner (Eds.). *Advances in human performance and cognitive engineering research: Human factors of remotely piloted vehicles* (pp. 373-384). Amsterdam: Elsevier.
- Gillan, D. J., & Sapp, M. V. (2005a). Out of the box: Approaches to good initial interface

designs. In R. Bias and D. Mayhew (Eds.), *Cost-justifying usability, 2nd Edition: An update for the internet age* (pp. 447 – 464). San Francisco: Morgan-Kaufmann.

- Gillan, D.J., & Sapp, M. V. (2005b). The static representation of object motion. In *Proceedings of the Human Factors and Ergonomics Society 49th Annual Meeting* (pp. 1588 - 1592). Santa Monica, CA: Human Factors and Ergonomics Society.
- Harrison, C., & Gillan, D.J. (2005). The role of motion in object recognition. In *Proceedings of the Human Factors and Ergonomics Society 49th Annual Meeting* (pp. 1625 - 1629). Santa Monica, CA: Human Factors and Ergonomics Society.
- Pazuchanics, S. L., and Gillan, D. J. (2005). Displaying distance in computer systems: A lesson from two-dimensional works of art. In *Proceedings of the Human Factors and Ergonomics Society 49th Annual Meeting*. Santa Monica, CA: Human Factors and Ergonomics Society.

Mark Scerbo

Professor
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 Norfolk, VA 23529
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Mark Scerbo graduated with a BA in Psychology from Rutgers in 1981, an MA in Psychology from University of Cincinnati in 1985 and the PhD in 1987. He is currently a professor of human factors psychology at Old Dominion University. He has over 25 years of experience researching and designing systems and displays that improve user performance in academic, military, and industrial work environments. His research interests are focused in two areas: 1) human interaction with automated and adaptive automated systems, and 2) user interaction with medical simulation technology. He has won many awards, most recently the Paper of Distinction at the Association for Surgical Education meeting in 2010. He also has significant experience in human factors research in industry, having supervised the Human Factors Research Laboratory at AT&T from 1987 to 1990. He is an Associate Editor of Human Factors and a Fellow of the Human Factors and Ergonomic Society.

Education

Degree: Ph. D., Psychology, University Of Cincinnati, 1987
Degree: M.A., Psychology, University of Cincinnati, 1985
Degree: B.A., Psychology, Rutgers College, Rutgers University, 1981

Selected Articles

Stefandidis, D., Scerbo, M. W., Smith, W., Acker, C. E., and Montero, P. N. (2012). Simulator training to automaticity leads to improved skill transfer compared with traditional proficiency-based training: A randomized controlled trial. *Annals of Surgery*, 255, (pp. 30-37).

Prytz, E., and Scerbo, M. W. (2012). Spatial judgments of linear perspective images in the horizontal and vertical planes from different vantage points. *Perception*, 41, (pp. 26-42).

Scerbo, M. W., Murray, W. B., Alinier, G., Antonius, T., Caird, J., Stricker, E., Rice, J., and Kyle, R. (2011). A path to better healthcare simulation systems: Leveraging the integrated systems design approach. *Simulation in Healthcare*, 6 (Supplement), (pp. 520-523).

Anderson, B. L., Scerbo, M. W., Belfore, L. A., and Abuhamad, A. (2011). Time and number of displays impact critical signal detection in fetal heart rate tracings. *American Journal of Perinatology*. *American Journal of Perinatology*, 28, (pp. 435-442).

Yurko, Y. Y., Scerbo, M. W., Prabhu, A. S., Acker, C. E., and Stefanidis, D. (2010). Higher mental workload is associated with poorer laparoscopic performance as measured by the NASA-TLX tool. *Simulation in Healthcare*, 5, (pp. 267-271).

David L. Strayer

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 380 South, 1530 East, Room # 502
 University of Utah
 Salt Lake City, Utah 84112-0251
 (801) 581-5037
David.Strayer@utah.edu

David Strayer received his PhD in 1989 from the University of Illinois-Urbana Champaign and is currently a professor of psychology at the University of Utah. He is the director of the Applied Cognition Lab at the University of Utah, which has been studying driver distraction to better understand how and why people can become overloaded while multi-tasking. His research has clearly shown the large cost of common distractions - like cell phone use and texting - on driving performance. Talking on the cell-phone increases the risk of accidents fourfold - the same amount as driving while intoxicated above the legal limit. As he and many other researchers have shown, the act of talking on the phone is the culprit - not holding the phone in one's hand. There is thus no difference between handheld and hands-free phones in cars. Apart from his applied research in human attention, Dr. Strayer has also identified a small set of people who seem to be able to multitask without a significant cost to their performance. Identifying the characteristics of these so-called 'supertaskers' is a new topic he currently pursues. His research has been covered widely in the media, including The New York Times, PBS News Hour with Jim Lehrer, and the Oprah Winfrey Show.

Educational History: 1989 Ph.D. University of Illinois at Urbana-Champaign

Major: Experimental Psychology

Minors: Quantitative, Biological

1982 M.S. Eastern Washington University

Major: Experimental Psychology

1980 B.A. Eastern Washington University

Majors: Psychology, History

Professional History

2004 – Present Professor, Department of Psychology, University of Utah

Adjunct Professor, Dept. of Educational Psychology, University of Utah

1995 - 2004 Associate Professor, Department of Psychology, University of Utah

1991 - 1995 Assistant Professor, Department of Psychology, University of Utah

1990 - 1991 Member of Technical Staff, Network Architecture and Services

Laboratory, GTE Laboratories

1989 - 1990 Post-Doctoral Research Associate, Department of Psychology,
 University of Illinois at Urbana-Champaign

Recent Publications

Strayer, D. L. & Cooper, J. M. (2010). Cell phones and driver distraction. In B. Goldstein (Ed.) *The SAGE Encyclopedia of Perception*.

Strayer, D. L., Medeiros-Ward, N., & Cooper, J. M. (2010). Multi-tasking and human performance. In H. Pashler (Ed.) *The SAGE Encyclopedia of Mind*.

Watson, J. M., & Strayer, D. L. (2010). Supertaskers: Profiles in extraordinary multi-tasking

- ability. *Psychonomic Bulletin and Review*. 17, 479-485.
- Logan, G. D., Miller, A. E., & Strayer, D. L. (2010). Electrophysiological evidence for parallel response selection in skilled typists. *Psychological Science*, xx, xxx-xxx.
- Watson, J. M., Miller, A. E., Lambert, A., & Strayer, D. L. (in press). The magical letters P, F, C, and sometimes U: The rise and fall of executive attention with the development of prefrontal cortex. In K. Fingerman, C. Berg, T. Antonucci, & J. Smith (Eds.), *Handbook of Lifespan Psychology*, Springer.
- Strayer, D. L., Drews, F. A., & Johnston, W. A. (In Press). The eye of the beholder: Cellular communication causes inattention blindness behind the wheel. In Gale, A. G., Taylor, S. P., & Castro, C. (Eds.), *Vision in Vehicles X*. Elsevier (pp. xx-xx).
- Seegmiller, J. K., Watson, J. M., & Strayer, D. L. (In Press). Individual Differences in Susceptibility to Inattentional Blindness. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, xx, xxx-xxx.
- Strayer, D. L., Watson, J. M., & Drews, F. A. (In Press). Cognitive distraction while multitasking in the automobile. In B. Ross (Ed.), *The Psychology of Learning and Motivation*, Vol. 54, xxx-xxx.

Thomas A. Dingus
Director of Virginia Tech Transportation Institute

Newport News Shipbuilding/Tenneco Professor of Civil and Environmental Engineering

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Certified Human Factors Professional, Board of Certification in Professional Ergonomics

Thomas Dingus received his B.A. and M.S. in Experimental Psychology from Eastern Washington University. In 1989 he completed his PhD at the University of Illinois-Urbana Champaign in Experimental Psychology in the area of Human Factors. He is the Director of the Virginia Tech Transportation Institute (VTTI) and is the Newport News Shipbuilding Professor of Civil and Environmental Engineering at Virginia Tech. He is center director of the Tier 1 Connected Vehicle/Infrastructure University Transportation Center (CVI-UTC), which comprises a consortium of Virginia Tech/VTTI, the University of Virginia, and Morgan State University.

Since 1996, Dr. Dingus has managed the operations and research at VTTI. This multidisciplinary organization annually conducts more than \$30 million in sponsored research. Prior to joining Virginia Tech, Dr. Dingus was founding director of the National Center for Transportation Technology at the University of Idaho and was an associate director of the Center for Computer-Aided Design at the University of Iowa.

Alternate URL for this homepage : <http://www.cee.vt.edu/people/dingus.html>

Education :

- B.S. Systems Engineering, Wright State University, 1979
- M.S. Engineering and Operations Research, Virginia Polytechnic Institute and State University, 1985
- Ph.D. Engineering and Operations Research, Virginia Polytechnic Institute and State University, 1987

Work Experience:

- Associate Professor, Department of Industrial Engineering, University of Iowa. 1993-95
- Assistant/Associate Professor, Department of Psychology, University of Idaho. 1986-92
- Adjunct Professor, Department of Mechanical Engineering, University of Idaho. 1990-92

Selected Publications:

- Dingus, T.A., Llaneras, E., Burgett, A., and Farber, E. (1999). Special Issue on Crash Avoidance Benefits Estimation Foreword. ITS Journal. (5), 89-92.
- Dingus, T.A., Hetrick, S. and Mollenhauer, M.A. (1999). Empirical Methods in Support of Crash Avoidance Model Building and Benefits Estimation. ITS Journal. (5), 93-126.
- Dingus, T.A., McGehee, D.V., Manakkal, N., Jahns, S.K., Carney, C., Hankey, J. (1997). Field evaluation of automotive collision avoidance systems. Human Factors. (39) 216-229.

ATTACHMENT 1

- Dingus, T.A., Hulse, M.C., Mollenhauer, M.A., Fleischman, R.N., McGehee, D.V. and Manakkal, N. (1997). The effects of Age, System Experience, and Navigation Technique on Driving with an Advanced Traveler Information System. Driver Behavior while using the TravTek system. Human Factors, 39(2) 177-199.
- Hanowski, R.J., Wierwille, W.W., Gellatly, A.W., Dingus, T.A., Knipling, R.R., and Carroll, R. (Accepted for publication). "Drivers' Perspective on Fatigue in Local/Short Haul Trucking." SAE Transactions.
- Hanowski, R.J., Wierwille, W.W., Gellatly, A.W., Dingus, T.A., Knipling, R.R., and Carroll, R. (1999). Safety concerns of local/short haul truck drivers. Transportation Human Factors Journal, 1(4), 377-386.

Appendix E
Letters of Support

These letters were originally requested in 2011 when we began to prepare this proposal and strategically invest in the future of our program. The following pages include letters of support from the following entities:

1. R. M. Craft, Chair, Department of Psychology, Washington State University
2. Ron Boring, Human Factors Principal Scientist, Idaho National Laboratories
3. Jeffrey Joe, Group Leader in Human Factors, Controls, and Statistics Department, Idaho National Laboratory
4. Bill Brown, User Experience Design Manager, Hewlett Packard Company, Boise, ID
5. Shannon Lynch, Chair, Department of Psychology, Idaho State University



Hewlett-Packard Company
11311 Chinden Boulevard
Boise, ID 83714
USA

ATTACHMENT 1

24 October 2011

Ken Locke
Department of Psychology and Communication Studies
University of Idaho
Moscow, ID 83844-3043

re: PhD program in Human Factors Psychology

To: Ken Locke

I am writing this letter on behalf of the Department of Psychology and Communications Studies at the University of Idaho. I am the User Experience Design Manager at Hewlett Packard located in Boise, Idaho. The LaserJet Enterprise and Solution business within Hewlett Packard has a design team of about 49 industrial designer, interaction designers, and experience designers. I manage the group of experience designers in that group. Within that group we have many individuals, including myself, that have graduated with a Master's in Human Factors Psychology from the University of Idaho. We also contract with the Kohl Group, who also employs graduates from the University of Idaho, to get the work completed.

In communications with Brian Dyre, I have learned that the Department of Psychology and Communications Studies at the University of Idaho is trying to establish a PhD program in Human Factors Psychology to complement the existing Masters Degree program. I see a great advantage having a local program that could provide a pool of skilled scientists and engineers to HP and other technology companies in Idaho. A local program helps train those that want to live in Idaho with the skills necessary to sustain the discipline.

If you have any questions please don't hesitate to call me at (208) 396-3288 or email me at bill.brown@hp.com.

Respectfully,

Bill Brown
User Experience Design Manager
Hewlett Packard Company

November 10, 2011

Professor Kenneth Locke, Department Head
Department of Psychology and Communication Studies
University of Idaho
Moscow, ID 83844-3043

Subject: Support for proposed doctoral program in Experimental Psychology

Dear Professor Locke,

With this letter, I would like to offer my enthusiastic endorsement of the University of Idaho's proposed doctoral program in Experimental Psychology with an emphasis in Human Factors.

The Idaho National Laboratory (INL) has for decades maintained a strong research program in human factors psychology. This research centers on designing human optimized systems for safety critical domains as well as categorizing factors that may degrade human performance. These research areas are based in experimental psychology, and most of our human factors staff come from academic backgrounds in experimental psychology.

As a human factors researcher at INL, I would like to highlight three reasons why I believe the proposed doctoral program at the University of Idaho is important for the INL:

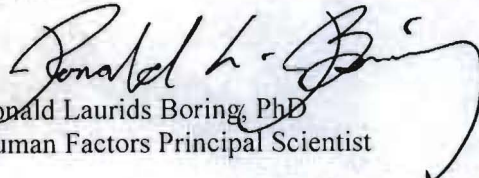
1. The type of human factors research the INL conducts is highly specialized (e.g., nuclear power) and does not mirror the curriculum of most Human Factors programs in the US. As such, it is difficult for the INL to find qualified job candidates with relevant backgrounds in our research areas. Often, the INL uses on-the-job training to bridge the competence gap, which can require considerable ramp-up time. By working with the University of Idaho and potentially sponsoring mutual research, it would be possible to expose Psychology students to the technical domains that are in high demand at the INL and related industries. This would create a nexus of research activity and provide a much needed pool of knowledgeable job applicants for INL.
2. The INL works closely with universities to conduct quality academic research that complements our on-site research. However, many of our projects that support academic research require a multi-year time commitment. This type of multi-year commitment is consistent with support of PhD students but not shorter-term Masters-level students. Having a group of students with which the INL can collaborate over a multi-year period is key to funding university projects. While it would be desirable to work with the University of Idaho on these projects, the lack of PhD students has hindered past INL collaboration with the University of Idaho.
3. Many INL researchers in human factors are involved in continuing education. Currently, there is no opportunity for INL staff to pursue doctoral level education in Human Factors in Idaho. This presents a particular cost and logistics issue: It is simply impractical to send INL research staff out of state to pursue further education. It uproots projects and the staff. There is a strong demand within INL to pursue coursework and advanced degrees in Human Factors, and having a university that can work with our staff—even as distance students—makes the PhD program at the University of Idaho particularly desirable.

Professor Kenneth Locke, Department Head
November 1, 2011
Page 2

ATTACHMENT 1

Furthermore, I believe the benefit is mutual: the University of Idaho would gain additional collaboration opportunities with the INL through doctoral projects as well as better opportunities for placement of highly qualified students. A PhD program in Experimental Psychology would be a tremendous boon to both INL and the University of Idaho, and I can only see positive outcomes resulting from the program's creation.

Kind regards,


Ronald Laurids Boring, PhD
Human Factors Principal Scientist

November 10, 2011

Professor Kenneth Locke, Department Head
Department of Psychology and Communication Studies
University of Idaho
Moscow, ID 83844-3043

Subject: Support for proposed doctoral program in Experimental Psychology

I am writing to offer my support of your Notice of Intent to start a Doctor of Philosophy (Ph.D.) program at the University of Idaho (UI) in Experimental Psychology with an emphasis on human factors psychology.

As the Human Factors Group Leader in the Human Factors, Controls, and Statistics Department at Idaho National Laboratory (INL), I lead a group of human factors and cognitive psychologists that study how to improve human and system performance in high risk and high consequence work environments. Given the nature of our research, the INL has a need for Ph.D. human factors psychologists. Specifically, Ph.D. human factors psychologists will have the requisite background in human factors engineering and experimental research methods using human participants that we need to conduct our research. The proposed Ph.D. program in human factors psychology at UI would help address INL's need to find qualified candidates for permanent hire in my group.

The proposed Ph.D. program offers additional collaboration opportunities between UI and INL. We are interested in collaborating with professors at UI, particularly those in human factors and experimental psychology. The INL also has a long track record of funding student research, and has supported graduate students from UI, Idaho State University, Vanderbilt University, University of Maryland, New Mexico State University, and Brigham Young University-Idaho. We are committed to exploring future collaborations with UI faculty and providing funding opportunities for graduate students as a means to facilitate collaborations that are mutually supportive of the INL's and UI's human factors research interests.

I strongly support the development of this Ph.D. program at UI. If I can answer any question or provide additional information, please do not hesitate to contact me.

Sincerely,



Jeffrey C. Joe, Group Leader
Human Factors, Controls, and Statistics Department
Idaho National Laboratory
PO Box 1625
Idaho Falls, ID 83415-3605

(208) 526-4297 voice
(208) 521-4886 cell
(208) 526-2777 fax
Email: Jeffrey.Joe@inl.gov



October 31, 2011

Kenneth Locke, Ph.D.
Chair, Department of Psychology and Communication Studies
University of Idaho

Dear Dr. Locke:

I am writing to express my strong support for the Ph.D. program in Experimental Psychology with an emphasis on **Human Factors** that is being proposed by the University of Idaho's Department of Psychology. Given the excellent masters-level training in human factors already being offered by the department, I have great confidence in the quality and success of the proposed doctoral program. Moreover, I am enthusiastic about the benefits this program could have for students, for the state of Idaho, and for improving work environments nationally if not internationally, through the research that will be conducted by doctoral students.

With respect to students, I am not aware of any graduate programs offering doctoral training in human factors psychology in the region. Therefore, students currently interested in pursuing doctoral training in human factors are forced to leave the area, which is not only disruptive for students but also contributes to the lack of highly qualified human factors professionals in this region. At Washington State University we occasionally hear from prospective students interested in this field of study, and we cannot accommodate their interests. I would be pleased to recommend such a program at the University of Idaho to students who inquire here.

There are numerous and increasing opportunities for employment for individuals with doctoral training in human factors psychology throughout the region as well as nationally. For example, I understand that the Idaho National Laboratory has expressed an interest in having doctoral level students in human factors psychology (e.g., human performance, safety, decision-making) as both interns during their training and as permanent employees after graduation.

A doctoral program in human factors will positively impact the state and regional economy by providing the highest level training in human-machine system integration and usability. Idaho in particular has a burgeoning high technology sector and this sector clearly benefits by enhancing the usability of their products. The expertise to achieve this abounds in students trained to be human factors psychologists.

In sum, I support and applaud the efforts of your department to establish a doctoral program in Human Factors Psychology, and look forward to the benefits it will bring to students and to the region.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. M. Craft'.

R. M. Craft, Ph.D.
Professor and Chair

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Department of Psychology
921 South 8th Avenue, Stop 8112 • Pocatello, Idaho 83209-8112

September 26, 2013

Dear colleagues,

This letter is to express our continued support of the expansion of the Human Factors Psychology MS to a PhD at the University of Idaho. Currently the only PhD program in Experimental Psychology in the state of Idaho is at Idaho State University. The ISU program offers specialized training in Experimental and Clinical Psychology, however, we do not have faculty expertise in Human Factors. Nor do we anticipate developing a program with a Human Factors emphasis given other demands. This is currently a significant gap in graduate training in the state of Idaho. Given that the Human Factors area is an area of expertise for psychology faculty at the University of Idaho, we are in full support of expanding the U of I Human Factors MS program to a PhD program to meet students' needs for graduate training in Idaho.

Respectfully submitted,



Shannon Lynch, PhD
Chair & Professor

**External Evaluation of the Proposal for a Ph.D. Program in Applied
Experimental Psychology/Human Factors in the Department of Psychology
and Communications at the University of Idaho**

External Reviewers: David Strayer, Professor of Psychology, University of Utah
John Flach, Professor of Psychology, Wright State University

Quality of Proposal

The proposal to expand the nationally accredited Human Factors program to offer both M.S. and Ph.D. degrees meets important national and regional needs and will have a positive impact on the state's economy. The expansion to a Ph.D. program will increase both the quality and productivity of the department.

The department currently offers both distance and on-campus M.S. degrees and the proposal to offer Ph.D. degrees will not impact the M.S. degree offered via distance education. However, as more Ph.D. graduate students are recruited into the on-campus program, this should offset the number of M.S. graduate students so that the total number of graduate students pursuing a graduate degree in Human Factors will remain stable.

The number of Ph.D. students supervised by each faculty should be between 2-3, which is what is being proposed and is consistent with peer institutions granting Ph.D. degrees in human factors. The department has made several strategic hires that provide the required expertise to offer a Ph.D. degree. The research facilities are excellent and should not require expansion for the Ph.D. program.

Quality of Curriculum

The planned curriculum seems well suited to provide students with a solid foundation for successful careers as human factors professionals in academic or industrial settings. This is not surprising, since the core is based on the current masters program, which is one of only 16 programs in the nation to be accredited by the Human Factors and Ergonomics Society (HFES).

The Ph.D. program is based on a mentorship model in which a major component of the education will involve supervised research (Masters Thesis and Dissertation). Additionally, the options for a qualifying exam or research paper that involve both written and oral components as a transition to the dissertation research stage is in line with many similar Ph.D. programs.

A component of the curriculum that should be given more consideration is the integration of internships into the curriculum plan. Existing research relations with the Idaho National Laboratory can be one potential source where students can get

experience with an applied research laboratory that could be a valuable component of the education experience. Opportunities for internships with other regional industries (e.g., Boeing, Microsoft, INTEL) should be explored. The Distance Learning component of the Masters Program might also open the door for industry partnerships to support Ph.D. students.

Quality of Faculty

As a component of our campus visit, we had the opportunity to visit numerous faculty members in their research labs. We were quite impressed by the enthusiasm and quality of the research questions that were being explored.

The senior researchers, Brian Dyre and Steffen Werner clearly have well-established labs with excellent track records of doing quality basic research that has clear practical significance. They have developed multiple facilities, including the driving/flight simulation facilities that have enormous potential for basic research related to perception and control of motion and applied research related to highway safety. Dr. Werner's research on the design of security passwords was very interesting in terms of a basic understanding of human memory and practical implications for computer security.

Ben Barton also described a number of interesting research projects and seems to be on track for developing a successful research program. Additionally, the newest faculty Rajah Cohen and Russell Jackson seem to be smart strategic hires that have high potential for contributing to a strong research program. Both have put together impressive facilities and both seem to be pursuing interesting research questions that have both theoretical and practical implications.

We also see the potential for the other faculty that we met with to support the human factors research focus. Ken Locke's expertise in multi-level modeling could be invaluable for supporting research programs designed to tease out the major influences in complex work domains where constraints at multiple layers (e.g., technological, social, and personal) shape performance. Additional faculty with expertise in social psychology (Traci Craig) and industrial/organizational psychology (Todd Thorsteinson) offer potential support for pursuing team and organization factors that impact human performance in complex work domains.

In addition to the capabilities of individual faculty, there seems to be overlapping interests among the faculty that should provide fertile ground for joint research efforts. There was additional evidence of collaborations with other departments (e.g., civil engineering, movement sciences). These collaborations have strong potential for competing for external research funds and for exposing Ph.D. students to interdisciplinary research. Finally, there seems to be enormous potential for the research in driving simulations, virtual reality, and motion control to contribute to interdisciplinary collaborations with the emerging initiatives on Virtual Technology & Design.

Quality of Research Facilities

The research facilities in the department are state-of-the-art, providing excellent resources for conducting high quality research. The research facilities include sophisticated eye-tracking systems, cutting-edge virtual reality labs, high-fidelity driving and flight simulators, and advanced biometric sensor technology. The faculty are collegial and collaborative, with many research projects involving the joint use of resources with two or more faculty and their graduate students involved in the research projects. The facilities will support an active Ph.D. program of research.

Quality of Institutional Support

Our visit included meetings with key administrators including the Provost, Dean of the College of Letters, Arts and Social Sciences, and the Dean of the Graduate School. The vision for the Ph.D. program in Applied Experimental Psychology seemed to align well with the vision of these administrators for future growth within the university.

Recent strategic hires within the Psychology Department along with generous startup packages for building laboratories provides strong evidence that the university is supportive of the Ph.D. initiative. This expansion is viewed as an important direction that can capitalize on the strengths of the faculty to enhance graduate training and have a positive impact on the state's economy.

Additionally, the focus of the Ph.D. program on human performance in socio-technical systems seems to be well aligned with other major initiatives on campus. This includes the development of the Virtual Technologies and Design program and the development of a technology corridor associated with the Coeur d'Alene campus.

Our only concern was with the existing campus model for funding graduate students. The policy of requiring most graduate students to pay tuition seems completely out of step with policies at comparable research universities. It is important to realize that the Ph.D. program will be competing with programs that routinely commit stipend and full tuition packages to their recruits. Ultimately, the success of the program will be judged by the quality of students that it attracts. Thus, investing in attracting the highest quality candidates should be a top priority.

Overall Assessment

The choice to develop a Ph.D. in Applied Experimental Psychology/Human Factors is well aligned with increasing appreciation within industry of the importance of the "user experience" for determining the ultimate functionality of advanced technologies. The value of "human-centered" design is highlighted by the fact that

Apple recently passed Exxon as the most profitable company in the world. There is a strong and growing demand from industry for social scientists who can participate on interdisciplinary teams to develop and evaluate technologies that are easy to learn and that enhance productivity and personal satisfaction.

The Psychology Department has already established a successful track record with the development of an HFES accredited curriculum and a history of producing graduates who are currently working in industry.

In addition to the practical value of a human factors program, there is an increased appreciation for the need to test theories of human performance against the practical demands associated with emerging technologies (e.g., computer security, highway safety, the development of electronic medical record systems).

There is considerable excitement about the proposal to expand the Human Factors program to offer both M.S. and Ph.D. degrees. The proposed curriculum meets the national accreditation standards, faculty in the Human Factors program are excellent, the research facilities are exceptional, and there is every reason to be optimistic about the program. However, it will be important to address the current funding model for graduate training if the program is to attract the best Ph.D. candidates.

We strongly endorse the proposed expansion of the graduate training program in Human Factors to offer both M.S. and Ph. D. degrees. A successful Ph.D. program in Human Factors has the potential to build human capital within the state, to support existing technology industries and to attract new technology industries into the region.