

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

Institution Submitting Request: University of Utah
Proposed Program Title: Master of Science in Pathology
Sponsoring School, College, or Division: School of Medicine
Sponsoring Academic Department(s) or Unit(s): Department of Pathology
Classification of Instructional Program Code¹ : 51.0811
Min/Max Credit Hours Required to Earn Degree: 40 / 40
Proposed Beginning Term²: Summer 2020
Institutional Board of Trustees' Approval Date:

Program Type (check all that apply):

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

Chief Academic Officer (or Designee) Signature:

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

Kajsa Affolter

Date: September 20, 2019

☒ I understand that checking this box constitutes my legal signature.

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

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

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

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

Section I: The Request

University of Utah requests approval to offer the following Master's degree(s): Master of Science in Pathology effective Summer 2020. This program was approved by the institutional Board of Trustees on .

Section II: Program Proposal

Program Description

Present a complete, formal program description.

The University of Utah's School of Medicine, Department of Pathology requests permission to establish a degree program that enables students to earn a Non-Thesis Master of Science in Pathology (MSP) degree while simultaneously completing a Post-Sophomore Pathology Fellowship (PSF). If approved, the degree program would be available beginning Summer Semester 2020.

Although a Master of Science (MS) in various sub-specialties has been offered by the University of Utah for quite some time, the current proposed degree, MSP, is very unique in that we are aware of only one other MS in Pathology existing in the nation. Additionally, only eighteen post sophomore pathology fellowships are available in the United States. This fellowship is designed for medical students after the successful completion of two to three years of medical school. It will consolidate the student's understanding of basic mechanisms of disease, enhance their knowledge of normal and pathologic anatomy, and develop an awareness for the relationship a clinical laboratory has with effective patient care. This program is well suited for students who plan to enter fields other than pathology, as well as students with a specialty interest in pathology. The overall goal of the Fellowship is to provide in-depth exposure to the full spectrum of anatomic and clinical pathology.

We have already completed two successful years with PSFs (without awarding an MSP degree). The previous fellows have found the experience to be extremely meaningful with regard to the amount of knowledge gained; however, we feel a more tangible recognition, such as a degree, would be both appropriate for the education as well as valuable for future job opportunities.

The fellow functions similar to a first year pathology resident, having hands on exposure to various anatomic and clinical pathology sub-specialties for an entire 12 month period. Fellowship responsibilities include working closely with faculty members and other more senior trainees in patient care related activities to gain firsthand experience in anatomic and clinical pathology. Core rotations and elective rotations, including research months with the purpose of completing a supervised clinical, translational or basic research project makes up the program. Students will also be required to prepare case material and information for presentations at departmental conferences.

The MSP program is customarily composed of several core pathology rotations, including 2 months of surgical pathology, 1-2 months of autopsy, 1 month of transfusion medicine, 1 month of hematopathology, and 1 month of cytopathology. In the remaining months, students elect other clinical rotations and/or research that would be most beneficial to meeting their future goals. We are lucky in our Department of

Pathology to have many different divisions and relationships, including with Huntsman Cancer Hospital, University of Utah Hospital, Primary Children's Hospital, Utah Office of the Medical Examiner, and ARUP Laboratories. This allows for numerous high quality elective rotations taught by experts in their associated field. Elective rotation options include, but are not limited to, pediatric pathology, forensic pathology, neuropathology, dermatopathology, clinical microbiology, clinical chemistry, molecular pathology, among many others. As these rotations have been taught to our pathology residents for many years, each course has an associated syllabus, associated educational resources and an evaluation completed by the instructor.

Beyond faculty devoting time and effort to training, additional support by the Department of Pathology includes that the fellow is considered a research associate (RA), which includes a stipend of \$25,000 per year and benefits. The fellow is given a book and travel fund. Malpractice coverage is provided and student loan repayments are able to be deferred for the year as the student would be in a degree seeking program.

We place acceptance priority on University of Utah medical students; however, would consider qualified medical students from other medical schools, with special attention to regional osteopathic medical schools as well as those medical school that do not have pathology residency programs for which their students can rotate.

The salient features of the MSP include, but are not limited to, the following:

- The duration of the MSP is 12 months (Summer/Fall/Spring).
- Produce a high quality workforce of physicians equipped with a high level of knowledge in both anatomic and clinical pathology.
- Emphasize everyday teamwork, leadership, professionalism and the practice of evidence based medicine in all sub-specialties of pathology developed through hands on training
- Attendance and presenting at daily hour long didactic sessions

Upon successful completion of a post sophomore pathology fellowship, the students will earn a MSP degree and obtain a department certificate of completion. The Department of Pathology faculty have consented to move forward with this proposal by a majority vote at a faculty meeting on 6/27/19.

Consistency with Institutional Mission

Explain how the program is consistent with the institution's Regents-approved mission, roles, and goals. Institutional mission and roles may be found at higheredutah.org/policies/policyr312/.

The MSP will meet the University of Utah mission by providing students with a foundation of medical knowledge allowing them to be better informed physicians, providing above average patient care. The year is spent filling a significant gap in our nation's current medical education system; thus, serving both that student, the student's future patients and perhaps giving the student tools to contribute to the broader medical system in general. Additionally, the program fosters the ability to have an increased awareness and communicate effectively across different medical specialties, which promotes leadership capabilities. A large advantage is developing relationships with mentors, having a lifelong impact on both clinical and research related decisions and

activities. These unique relationships in combination with the fact that the PSFs have a higher rate of attracting medical students tending to end up in academic and research positions, contributes to the long-term success and viability of the University of Utah as an institution and the state of Utah. Excellence in patient care, education, and research are mainstays of the Department of Pathology and expected of any individual completing a program within the department.

Section III: Needs Assessment

Program Rationale

Describe the institutional procedures used to arrive at a decision to offer the program. Briefly indicate why such a program should be initiated. State how the institution and the USHE benefit by offering the proposed program.

Per the Association of Pathology Chairs (APC), there is an anticipated shortage of pathologists. An advocacy committee within the APC explored the impact PSF programs could have on this problem, and found that medical students completing a PSF were much more likely than other medical students to choose pathology as a career. A study in 2012 presented at the United States and Canadian Academy of Pathology meeting discussed a survey revealing that on average 37% of post sophomore fellows chose pathology as a career choice. An MSP awarded to successful PSFs is seen as a pipeline for the department to recruit outstanding medical students into pathology.

The PSF will gain insight into how a career in pathology provides patient care as well as how the specialty can effectively overlap with translational science. Beyond attaining a core set of medical and pathology knowledge via didactics, the fellowship is designed to develop an awareness of the realities of practicing pathology. As the trainee is integrated into the day to day routine, they learn as they simultaneously impact patients. This provides information in a manner which has a lifelong influence on the trainee as they will be able to recollect specific patient cases they saw during the year's experience throughout their life. This knowledge will create better physicians no matter the specialty they choose. The awarding of a degree to this experience would provide a formal permanent recognition of their in depth exposure to pathology, which would be well deserved.

Labor Market Demand

Provide local, state, and/or national labor market data that speak to the need for this program. Occupational demand, wage, and number of annual openings information may be found at sources such as Utah DWS Occupation Information Data Viewer (jobs.utah.gov/jsp/wi/utalmis/gotoOccinfo.do) and the Occupation Outlook Handbook (www.bls.gov/oco).

The advancement of personalized medicine pushing high throughput genetic sequencing techniques and the availability of extensive sequencing data, has created the need for pathologists capable of developing and interpreting complex molecular assays. Both startup companies and established laboratories are competing to offer these testing modalities and thus numerous jobs are available for qualified individuals. Additionally, as with most industries, artificial intelligence has the potential to drastically change the practice of pathology and the field needs intelligent, tech savvy individuals who understand the practice of pathology that can help appropriately expand digital pathology in order to benefit the specialty. There has also been a general decline in the number of US medical graduates choosing pathology as a career as well as a large generation that is approaching retirement, so that although current national job market indicators from the past 5 years show the market as maintaining a steady course, even the more conventional jobs in academic and clinical medicine, especially in under served areas, could struggle to fill their needs in the near future.

It is worth noting that we are only offering one position per year. I view the proposed program as a means

of introducing high quality medical students to the profession of pathology as opposed to a high quantity of students.

66% by 2020: This proposal is consistent with the Governor's mission of preparing people for the Utah job market and will increase the percentage of students obtaining MS degrees.

Student Demand

Provide evidence of student interest and demand that supports potential program enrollment. Use Appendix D to project five years' enrollments and graduates. Note: If the proposed program is an expansion of an existing program, present several years enrollment trends by headcount and/or by student credit hours that justify expansion.

As mentioned previously, we have already completed two successful years of PSFs (without awarding an MSP), having a fellow during the 2017-'18 and 2018-'19 academic years. The previous fellows have found the experience to be extremely educational and influential; however, the challenge is that no accrediting body considers the experience to be under their purview and thus no formal standard process to acknowledge the successful completion of the program has been created. We feel a more tangible recognition, such as a degree, would be both appropriate for the gained knowledge as well as valuable for future job opportunities. An MSP would provide both medical students pursuing pathology and those entering other fields with a competitive edge for residency, fellowship and job positions.

The average medical school does not accurately depict the everyday practice of pathology during the pre-clinical years and the ability to spend time on an elective rotation in pathology often arrives too late in the decision making process to impact specialty choice. The year long program allows for timely and informed decision making on the part of the student. We intend to continue using the same hands-on model we have been following, offering only a single position each year. With only one post sophomore fellow per year, we are able to provide a very individualistic experience, catering to the student's future goals.

Similar Programs

Are similar programs offered elsewhere in the USHE, the state, or Intermountain Region? If yes, identify the existing program(s) and cite justifications for why the Regents should approve another program of this type. How does the proposed program differ from or compliment similar program(s)?

There is no Master's level degree program in Pathology in Utah for medical students.

The University of Utah Department of Pathology offers a Master of Science in Laboratory Medicine and Biomedical Science, but this program is designed for those primarily interested in being a medical laboratory scientist and is not designed for medical students.

The only other MSP in the nation that we are aware of is that offered by the University of Vermont Larner College of Medicine in Burlington, Vermont. This program has been around since 1956 and proven extremely successful. As of 2005, they reported having had 110 students that participated in the program and 30% of which pursued pathology as their career choice.

Collaboration with and Impact on Other USHE Institutions

Indicate if the program will be delivered outside of designated service area; provide justification. Service areas are defined in highereducation.utah.gov/policies/policy315/. Assess the impact the new program will have on other USHE institutions. Describe any discussions with other institutions pertaining to this program. Include any collaborative efforts that may have been proposed.

The MSP will not be offered outside the designated service area. The program should have no adverse

impact on other USHE institutions as none of the USHE institutions offer similar programs. We have briefly interacted, by way of sending advertising bulletins, with other institutions outside the USHE. These include Rocky Vista University College of Osteopathic Medicine in Parker, Colorado and Southern Utah as well as University of Nevada, Reno School of Medicine. We are hoping to draw promising applicants from regional medical schools that do not themselves have pathology rotations and/or residencies. We do, however, place significant priority on the University of Utah Medical Students.

External Review and Accreditation

Indicate whether external consultants or, for a career and technical education program, program advisory committee were involved in the development of the proposed program. List the members of the external consultants or advisory committee and briefly describe their activities. If the program will seek special professional accreditation, project anticipated costs and a date for accreditation review.

The pathology residency program and many fellowships in the department are accredited by a national body, American College of Graduate Medical Education (ACGME), following their strict requirements. The University of Utah Department of Pathology's training programs are considered to be in good standing with the ACGME with no citations. As previously mentioned, the challenge with the PSF program is that no accrediting body considers the experience to be under their purview and thus no formal standard process to acknowledge the successful completion of the program has been created. This being said, the department holds the PSF program to the same standards. Thus, many of the program requirement's for first year residents put forth by the ACGME, including milestones to be achieved and evaluations, are utilized to assess the overall PSF program.

The PSF has been operating smoothly for two years and we do not expect any additional accreditation costs.

Section IV: Program Details

Graduation Standards and Number of Credits

Provide graduation standards. Provide justification if number of credit or clock hours exceeds credit limit for this program type described in R401-3.11, which can be found at higheredutah.org/policies/R401.

To receive the MSP degree, a student must:

- Complete the required 40 hours of coursework, including required core and elective courses/rotations.
- Receive passing grades in all program courses/rotations.
- Receive a majority of positive evaluations from the course directors.
- Take the Residency In Service Examination (RISE) taken toward the end of the year

Regarding the 40 credit hour determination, the Carnegie definition for credit hours is based upon three hours of work per week over a sixteen week semester, equating to 48 hours of total work time for a single credit and 192 hours of total work time for four credits. The trainee in the PSF program begins their day at 8 am with a required hour long didactic session and works until at least 5-6 pm (sometimes later) Monday through Friday. Each course is different, some requiring more clinical work time and some requiring more homework/ presentation creation time. The average number of working days in a month is 21.62 days. So, over the course of a month the trainee is estimated to be working a total of 194.58 hours (21.62 days x 9 hours), which is just slightly above the 192 hours equating to four credit hours.

Each rotation is one month long (or approximately 194.58 hours of working time or 4 credit hours). So with 6 months of required courses, this equates to 24 credit hours earned. The remaining 16 needed hours to achieve a total of 40 hours is accomplished with clinical or research electives. Each elective rotation is one month in duration, for a total of 4 additional months of work. The program is a year long (12 months) to allow for a month transition back into medical school (the concluding June) where they attempt to combine their clinical work while being able to follow up on any research that has been started. I am also taking into account vacation/sick days, which total an allowable 25 days in our program, although to be honest these are rarely used in entirety. Thus, if I estimate 10 months' worth of true working days, I arrive at 40 hours to complete the MS in Pathology.

Regarding the passing grades in all program courses/rotations, the proposed program will follow a CR/NC based grading system, if approved by the graduate council. This would be with the understanding that CR is equivalent to a "B" grade or above. This will ensure that the grade point average is at or above a 3.0. The courses created for a Masters of Pathology will not be used elsewhere by medical students. The courses are solely for the purpose of the MSP degree. Grading for each course is based on a culmination of daily clinical performance, presentations given during the morning didactic sessions, and final evaluations performed by faculty. Some rotations have post rotation examination, usually consisting of a slide based test. The students obtaining the PSF position have already successfully completed two years of medical school and sought out the extra experience of a PSF. This self-selects for high achieving students; however, because of this, we also have high expectations for completion of a MSP.

Please also see the description of the evaluations, additional considerations for determining grades, and the detailed information on the RISE examination in the Student Standards of Performance, Section VI: Program Evaluation for additional details.

Admission Requirements

List admission requirements specific to the proposed program.

Applicants must have completed the first two to three years of medical school and be in good standing with the University of Utah School of Medicine or their respective medical school. Interested candidates will submit a cover letter with personal statement, current curriculum vitae, CAP Standardized Fellowship Application, sealed medical school transcript, and two letters of recommendation. Although their possible interest in pursuing a career in pathology is a consideration, it is definitely not a requirement.

Curriculum and Degree Map

Use the tables in Appendix A to provide a list of courses and Appendix B to provide a program Degree Map, also referred to as a graduation plan.

Section V: Institution, Faculty, and Staff Support

Institutional Readiness

How do existing administrative structures support the proposed program? Identify new organizational structures that may be needed to deliver the program. Will the proposed program impact the delivery of undergraduate and/or lower-division education? If yes, how?

The Department of Pathology at University of Utah fully supports an Anatomic and Clinical Pathology residency program with twenty trainees alongside fifteen sub-specialty fellowships, many of these with

multiple trainees. All programs with an available accrediting body are in good standing. The department has many different divisions and established relationships, including with Huntsman Cancer Hospital, University of Utah Hospital, Primary Children's Hospital, Utah Office of the Medical Examiner, and ARUP Laboratories, which allows for numerous high quality courses/rotations taught by world renowned experts. There is a significant amount of case material and the PSF will participate in patient care, research, and teaching activities in both the required courses and the numerous offered electives. A rotation schedule for the academic year is made each March so that rotations/courses are organized in a fashion balancing work load amongst all trainees. There should be no new organizational structures required and it should not impact the delivery of "lower-division" education. The primary interaction of the Pathology Student Fellows with "lower-division" students is that of medical students on a clinical pathology elective; however, these particular medical students function more in a shadower capacity than as a resident, unlike the Pathology Student Fellow.

Faculty

Describe faculty development activities that will support this program. Will existing faculty/instructors, including teaching/graduate assistants, be sufficient to instruct the program or will additional faculty be recruited? If needed, provide plans and resources to secure qualified faculty. Use Appendix C to provide detail on faculty profiles and new hires.

Given the current number of faculty and staff currently employed to support the department's educational mission, the amount of trainees our program educates annually, and that we will only have a single PSF Student Fellow, no other faculty will be needed for this Masters program. The current faculty will be sufficient.

Staff

Describe the staff development activities that will support this program. Will existing staff such as administrative, secretarial/clerical, laboratory aides, advisors, be sufficient to support the program or will additional staff need to be hired? Provide plans and resources to secure qualified staff, as needed.

Our current Fellowship Coordinator, Ashleigh McKensie, has been helping to organize and support the PSF and will continue to do so. She functions as the Fellowship Director's administrative assistant as well, making for a close working relationship to keep the fellowship operating effectively. No additional staff will be needed.

Student Advisement

Describe how students in the proposed program will be advised.

As created by the pathology residency program, each new resident is paired with a faculty mentor, which can be changed later as the trainee refines their particular career interest. This is mimicked for the PSF. As the Fellowship Director, Kajsa Affolter MD, functions as the primary official mentor; however, relationships with other faculty, both clinical and research, are encouraged and fostered based on areas appealing to the particular student.

Library and Information Resources

Describe library resources required to offer the proposed program if any. List new library resources to be acquired.

No additional resources from the library will be needed.

Projected Enrollment and Finance

Use Appendix D to provide projected enrollment and information on related operating expenses and funding sources.

Section VI: Program Evaluation

Program Assessment

Identify program goals. Describe the system of assessment to be used to evaluate and develop the program.

Program Goals:

Provide excellent training in all core areas of pathology with exposure to a range of additional available sub-specialties

Offer a flexible schedule of courses that can be tailored for specific career interests

Produce quality medical students that will attain desired residency positions and become top tier residents and physicians

Prepare students for leadership roles as academic or community based physicians

Encourage and support medical student research

The program performs annual evaluations to identify areas for improvement and implement action plans. This comes in the form of a discussion and formal written evaluation filled out by the PSF at the end of the year.

A program advisory committee meets annually to discuss the Pathology Department's residency and fellowship programs. Department leadership, core program and subspecialty program leadership, key faculty with significant overlap between core and subspecialty programs, and senior trainees are invited. Group meeting goals are to identify strengths, weaknesses, threats, resources, and areas for improvement for the program. Grouped statistical data regarding examination pass rates, ACGME site visit evaluations, evaluations anonymously filled out by trainees, among many other pieces of information are all a part of the discussion. This grouped trainee data is used as a platform to facilitate the process within the subspecialty programs and to achieve alignment with institutional and departmental priorities. This program advisory committee meeting occurs annually to ensure the program is running smoothly and to address any program deficiencies.

Student Standards of Performance

List the standards, competencies, and marketable skills students will have achieved at the time of graduation. How and why were these standards and competencies chosen? Include formative and summative assessment measures to be used to determine student learning outcomes.

A MSP would provide both medical students pursuing pathology and those entering other fields with a competitive edge for residency, fellowship and job positions. The average medical school does not accurately depict the everyday practice of pathology during the pre-clinical years and the ability to spend time on an elective rotation in pathology often arrives too late in the decision making process to impact specialty choice. The year long program allows for timely and informed decision making on the part of the student. We intend to continue using the same hands-on model we have been following, offering only a single position each year. With only one PSF per year, we are able to provide a very individualistic experience, catering to the student's future goals.

The ACGME has defined a very detailed set of milestones for each residency year and created an evaluation process to reflect these. We are utilizing these highly researched milestones to assess the PSFs, viewing the first year resident milestones as a gauge for what the PSF should also accomplish. The key areas of evaluation include diagnostic skills, grossing skills, reporting ability, communication, professionalism, and overall performance. Each rotation has a distinct set of learning objectives and expectations. The evaluation is completed at the end of the course by the course director, assessing the student's fulfillment of these goals.

Additionally, at the beginning and end of the year a test is given, Residency In-Service Examination (RISE First and RISE, respectively). The University of Utah Graduate School catalog defines the examination of the Non-thesis Option to require "course work only or involve an independent project. In either case, a final exam that covers breadth and integration of material in the field is required. The examination may be written, oral, or both, and is conducted by the supervisory committee or the department." While the rotations and above described evaluations fulfill the course work requirement, the Residency In-service Exam fulfills the examination requirement. It is a written exam given toward the end of the academic year, administered by the department. It is a comprehensive examination tool (assessing Anatomic Pathology, Clinical Pathology, Molecular Pathology and Laboratory Administration) utilized by various international and 100% of the U.S. pathology residency programs. It consists of more than 350 questions, many with microscopic images or patient/lab scenarios requiring high level thought and application. The questions are constructed by members of the RISE committee, in collaboration with solicited volunteers from well recognized societies, all of whom are acknowledged experts in their respective fields. Trainees are given six proctored hours to complete the rigorous exam. Score information is provided to the Program Director and the individual trainee. Computer generated statistical and score reports are provided for assessment in every single subspecialty content area. These subspecialty content areas are organized within a very similar structure, if not the exact same structure, as the rotations the trainee has been attending throughout the year. Thus, at the completion of the exam, the director can evaluate those specific topics in which the trainee has rotated. The expectation would be that the PSF does not fall into the bottom quartile in any of these topics, as the bottom quartile has been associated with a higher rate of failing the American Board of Pathology (ABP) certifying examination, which is taken at the end of a four year pathology residency. The scores are released in May and so the supervisory committee can use the scores as a point of deliberation amongst many factors contributing to the Report of the Final Examination/Certification of Completion for the non-thesis Master's Degree form to the department.

The Supervisory Committee for trainees within the department of pathology is referred to as the Clinical Competency Committee (CCC). It is a nine person committee that meets eight times a year (four times in November and four times in May). This schedule is arranged so that each of the individual trainees and their progress is discussed at 6 month intervals. This includes reviewing the PSF twice a year. I realize, however, that I am asking for an exception to the rule requiring a majority tenure track faculty for this supervisory committee as we make no distinction between tenure and clinical track faculty for this particular group. In fact, the clinical track faculty tend to interact with the trainees more so than the tenure track in many cases and thus we usually have a majority of clinical track faculty serving on the CCC. All members of the committee have their M.D. or combined M.D. Ph.D. degrees, are within the department of pathology, and are qualified to evaluate a trainee's progress in the program. The group is larger than the graduate school recommended/required three person supervisory committee as our department is very large and it is nice to have representation from various different subspecialty rotations. To meet graduate

school suggestions, we will assign a 3 person subcommittee within this group that can sign off on the student's fulfillment of the master's degree requirements. Each trainee is presented to the group by an assigned committee member for a thorough evaluation. The PSF is presented by the program director, Kajsa Affolter MD. The group evaluates the Residency In-Service Examination First (RISE First) scores in November, the Residency In-Service Examination (RISE) scores in May, and the monthly evaluations assessing ACGME defined milestones, filled out by all faculty spending time with the trainee, on both occurrences. These provide metrics to assess the impact the training has had on the trainee, which are evaluated by the CCC. Any deficiencies are deliberated and a plan for remediation is created. As the Masters in Pathology would be a non-thesis track, there is no need for approving, reading or judging a final thesis by the committee.

Appendix A: Program Curriculum

List all courses, including new courses, to be offered in the proposed program by prefix, number, title, and credit hours (or credit equivalences). Indicate new courses with an X in the appropriate columns. The total number of credit hours should reflect the number of credits required to be awarded the degree.

For variable credits, please enter the minimum value in the table for credit hours. To explain variable credit in detail as well as any additional information, use the narrative box at the end of this appendix.

Course Number	NEW Course	Course Title	Credit Hours
General Education Courses (list specific courses if recommended for this program on Degree Map)			
General Education Credit Hour Sub-Total			
Required Courses			
6051	×	Autopsy	4
6050	×	Surgical Pathology	8
6054	×	Transfusion	4
6052	×	Cytopathology	4
6053	×	Hematopathology	4
Required Course Credit Hour Sub-Total			24
Elective Courses			
6056	×	Clinical Elective	12
6055	×	Research Elective	4
Elective Credit Hour Sub-Total			16
Core Curriculum Credit Hour Sub-Total			40

Are students required to choose an emphasis? Yes or ☒ No

Course Number	NEW Course	Course Title	Credit Hours
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Course Number	NEW Course	Course Title	Credit Hours
Name of Emphasis:			
Emphasis Credit Hour Sub-Total			
Total Number of Credits to Complete Program			40

Program Curriculum Narrative

Describe any variable credits. You may also include additional curriculum information.

The Autopsy rotation may range from 4-8 credits. The Clinical Elective may range from 12 to 24 credits. The Research Elective may range from 4-8 credits.

Degree Map

Degree maps pertain to undergraduate programs ONLY. Provide a degree map for proposed program. Degree Maps were approved by the State Board of Regents on July 17, 2014 as a degree completion measure. Degree maps or graduation plans are a suggested semester-by-semester class schedule that includes prefix, number, title, and semester hours. For more details see <http://higheredutah.org/pdf/agendas/201407/TAB%20A%202014-7-18.pdf> (Item #3).

Please cut-and-paste the degree map or manually enter the degree map in the table below.

Appendix C: Current and New Faculty / Staff Information

Part I. Department Faculty / Staff

Identify # of department faculty / staff (headcount) for the year preceding implementation of proposed program.

	# Tenured	# Tenure -Track	# Non -Tenure Track	
Faculty: Full Time with Doctorate	8	26	75	
Faculty: Part Time with Doctorate	8	0	2	
Faculty: Full Time with Masters	0	0	7	
Faculty: Part Time with Masters	0	0	1	
Faculty: Full Time with Baccalaureate	n/a	n/a	n/a	
Faculty: Part Time with Baccalaureate	n/a	n/a	n/a	
Teaching / Graduate Assistants			n/a	
Staff: Full Time	n/a	n/a	108	
Staff: Part Time	n/a	n/a	23	

Part II. Proposed Program Faculty Profiles

List current faculty within the institution -- with academic qualifications -- to be used in support of the proposed program(s).

	First Name	Last Name	Tenure (T) / Tenure Track (TT) / Other	Degree	Institution where Credential was Earned	Est. % of time faculty member will dedicate to proposed program.	If "Other," describe
Full Time Faculty							
	Kajsa	Affolter	Other	MD	University of Kansas School of Medicine	10%	Clinical Trac
Part Time Faculty							
	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Part III: New Faculty / Staff Projections for Proposed Program

Indicate the number of faculty / staff to be hired in the first three years of the program, if applicable. Include additional cost for these faculty / staff members in Appendix D.

	# Tenured	# Tenure -Track	# Non -Tenure Track	Academic or Industry Credentials Needed	Est. % of time to be dedicated to proposed program.
Faculty: Full Time with Doctorate	N/A	N/A	N/A		
Faculty: Part Time with Doctorate	N/A	N/A	N/A		
Faculty: Full Time with Masters	N/A	N/A	N/A		
Faculty: Part Time with Masters	N/A	N/A	N/A		
Faculty: Full Time with Baccalaureate	N/A	N/A	N/A		
Faculty: Part Time with Baccalaureate	N/A	N/A	N/A		
Teaching / Graduate Assistants			N/A		
Staff: Full Time	N/A	N/A	N/A		
Staff: Part Time	N/A	N/A	N/A		

Appendix D: Projected Program Participation and Finance

Part I.

Project the number of students who will be attracted to the proposed program as well as increased expenses, if any. Include new faculty & staff as described in Appendix C.

Three Year Projection: Program Participation and Department Budget						
	Year Preceding Implementation	New Program				
		Year 1	Year 2	Year 3	Year 4	Year 5
Student Data						
# of Majors in Department	0	0	0	0	0	0
# of Majors in Proposed Program(s)	////	0	0	0	0	0
# of Graduates from Department	0	1	1	1	1	1
# Graduates in New Program(s)	////	1	1	1	1	1
Department Financial Data						
	Department Budget					
		Year 1	Year 2	Year 3		
	Year Preceding Implementation (Base Budget)	Addition to Base Budget for New Program(s)	Addition to Base Budget for New Program(s)	Addition to Base Budget for New Program(s)		
<i>Project additional expenses associated with offering new program(s). Account for New Faculty as stated in Appendix C, "Faculty Projections."</i>						
EXPENSES – nature of additional costs required for proposed program(s)						
<i>List salary benefits for additional faculty/staff each year the positions will be filled. For example, if hiring faculty in year 2, include expense in years 2 and 3. List one-time operating expenses only in the year expended.</i>						
Personnel (Faculty & Staff Salary & Benefits)	\$0	\$0	\$0	\$0		
Operating Expenses (equipment, travel, resources)	\$0	\$0	\$0	\$0		
Other:	\$0	\$0	\$0	\$0		
TOTAL PROGRAM EXPENSES	////	\$0	\$0	\$0		
TOTAL EXPENSES	\$0	\$0	\$0	\$0		
FUNDING – source of funding to cover additional costs generated by proposed program(s)						
<i>Describe internal reallocation using Narrative 1 on the following page. Describe new sources of funding using Narrative 2.</i>						
Internal Reallocation	\$0	\$0	\$0	\$0		
Appropriation	\$0	\$0	\$0	\$0		
Special Legislative Appropriation	\$0	\$0	\$0	\$0		
Grants and Contracts	\$0	\$0	\$0	\$0		
Special Fees	\$0	\$0	\$0	\$0		
Tuition	\$0	\$0	\$0	\$0		
Differential Tuition (requires Regents approval)	\$0	\$0	\$0	\$0		
PROPOSED PROGRAM FUNDING	////	\$0	\$0	\$0		
TOTAL DEPARTMENT FUNDING	\$0	\$0	\$0	\$0		
Difference						
Funding - Expense	\$0	\$0	\$0	\$0		

Part II: Expense explanation

Expense Narrative

Describe expenses associated with the proposed program.

Currently, the medical student completing a PSF is given an annual stipend (\$25,000), book and travel fund (\$750), and the benefits as assigned to a 1.0 FTE Research Associate. The fellowship director has access to medical education discretionary funds to be used for advertising and miscellaneous costs that may arise. There should be no significant change to this structure upon making it into a degree seeking program and no additional faculty or support staff need to be hired. So, although the Department of Pathology does financially support the fellowship program, no additional costs should be incurred upon the fellowship becoming an MSP degree seeking program.

Part III: Describe funding sources

Revenue Narrative 1

Describe what internal reallocations, if applicable, are available and any impact to existing programs or services.

N/A

Revenue Narrative 2

Describe new funding sources and plans to acquire the funds.

N/A