



UNIVERSITY of WASHINGTON

Michael K. Young
President

October 14, 2014

Dean Paul Ramsey
School of Medicine
Box 357110

Dear Paul:

Based on the recommendation of its Subcommittee on Admissions and Programs, the Faculty Council on Academic Standards has recommended approval of the revised program requirements for the Doctor of Medicine degree. A copy of the change is attached.

I am writing to inform you that the School of Medicine is authorized to specify these requirements beginning autumn quarter 2015.

The new requirements should be incorporated in printed statements and in individual department websites as soon as possible. The *General Catalog* website will be updated accordingly by the Registrar's Office.

Sincerely yours,

A handwritten signature in black ink that reads "Michael K. Young".

Michael K. Young
President

Enclosure

cc: Dr. Michael Ryan (with enclosure)
Mr. Robert Corbett (with enclosure)
Ms. Virjean Edwards (with enclosure)



UNIVERSITY OF WASHINGTON
**CREATING AND CHANGING UNDERGRADUATE
 ACADEMIC PROGRAMS**

OFFICE USE ONLY
 Control #
 MED-20140902

After college/school/campus review, send a signed original and 1 copy to the Curriculum Office/FCAS, Box 355850.
 For information about when and how to use this form: <http://depts.washington.edu/uwcr/1503instructions.pdf>

College/Campus **School of Medicine** Department/Unit **School of Medicine** Date **Sept. 2, 2014**

New Programs

Leading to a Bachelor of ____ in ____ degree.

Leading to a Bachelor of ____ degree with a major in ____.

Leading to a ____ Option within the existing major in ____.

Leading to a minor in ____.

Changes to Existing Programs

New Admission Requirements for the Major in ____ within the Bachelor of ____.

Revised Admission Requirements for the Major in ____ within the Bachelor of ____.

Revised Program Requirements for the Major in ^{Medicine} ____ within the Bachelor of ____.

Revised Requirements for the Option in ____ within the major in ____.

Revised Requirements for the Minor in ____.

Other Changes

Change name of program from HUBIO to MEDSC

Change delivery method or location of program.

New or Revised Continuation Policy for ____.

New Honors Requirements for ____.

Eliminate program in ____.

Proposed Effective Date: **Quarter:** Autumn Winter Spring Summer **Year: 20 15**

Contact Person: Michael Ryan, M.D. Phone: 543-5560 Email: mjryan@uw.edu Box: 356340

EXPLANATION OF AND RATIONALE FOR PROPOSED CHANGE

For new program, please include any relevant supporting documentation such as student learning outcomes, projected enrollments, letters of support and departmental handouts. (Use additional pages if necessary).

See Attached sheet.

OTHER DEPARTMENTS AFFECTED

List all departments/units/ or co-accredited programs affected by your new program or changes to your existing program and acquire the signature of the chair/director of each department/unit listed. Attach additional page(s) if necessary. *See online instructions.

Department/Unit: n/a	Chair/Program Director:	Date:
Department/Unit: n/a	Chair/Program Director	Date:

CATALOG COPY

Catalog Copy as currently written. Include only sections/paragraphs that would be changed if your request is approved. Please cross out or otherwise highlight any deletions.


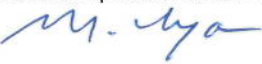
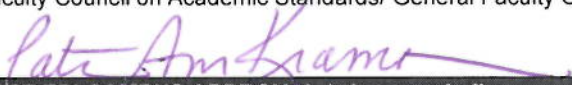
See attached sheet.

PROPOSED CATALOG COPY

Reflecting requested changes (Include exact wording as you wish it to be shown in the printed catalog. Please underline or otherwise highlight any additions. If needed, attach a separate, expanded version of the changes that might appear in department publications).
Please note: all copy will be edited to reflect uniform style in the General Catalog.

See attached sheet.

APPROVALS

Chair/Program Director: 	Date: 9/2/14
College/School/Campus Curriculum Committee: 	Date: 9/2/14
Dean/Vice Chancellor:	Date:
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair: 	Date: 10/10/2014
POST TRI-CAMPUS APPROVAL (when needed)	
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair:	Date:

School of Medicine

Revised Program Requirements for the Degree in Medicine

1503 form: For new program, please include any relevant supporting documentation such as student learning outcomes, projected enrollments, letters of support and departmental handouts.

Rationale for School of Medicine Curriculum Revision

The UW School of Medicine is updating the basic science component of its MD curriculum commencing academic year 2015 to meet accreditation standards of the Liaison Committee on Medical Education (LCME), and to accommodate a growing class size in order to meet physician workforce needs in the Washington, Wyoming, Alaska, Montana and Idaho (WWAMI) regions. The LCME accreditation standards emphasize the use of competencies in the curriculum and measurement of student learning outcomes; inclusion of population health, information management, and emphasis on quality and safety systems; and essential congruence of learner experiences across all teaching sites. The proposed curricular changes also mirror dominant national trends that emphasize active learning and integrating scientific foundations with clinical curricula.

It has been over a decade since the last comprehensive curriculum review and revision, which took place between 1998 and 2001. Since that review, there have been a number of dramatic changes and advances in the healthcare environment, technology, and adult learning theory which have impacted medical education. The pace of change and progress in medicine has also been expanding more rapidly. Another factor in the decision to update the curriculum is the expected shortage of physicians nationally, and in particular, the shortage of physicians within underserved WWAMI regions, in light of the expanding populations in the WWAMI region. Finally, the change in recent generations of students impacts our educational approaches.

The basic tenets in medical education have changed dramatically over the past decade due to the increase in awareness of adult learning theory and pedagogy. The approaches that are becoming predominant in medical education include: 1) a heightened focus on competencies, and the recognition that an integrated competency-based education starts with medical school and continues into graduate medical education and beyond into life-long learning; 2) the recognition that active learning provides better retention than passive, lecture-based learning; 3) an increased focus on contextual learning, in which clinical examples and case-based learning provide better retention and imprinting than factual learning alone; 4) a focus on concepts rather than facts, particularly in an era of exploding and changing information; 5) an understanding that learning occurs in different ways for different students depending upon their own learning styles; 6) an awareness of "the hidden curriculum" in which students learn through exposure the negative habits, biases, and attitudes of teachers, residents, role models, and others, in spite of the formal learning they receive in the classroom and on the wards (Cooke, M., Irby, D. & O'Brien, B., *Educating Physicians*).

The need and desire of our WWAMI partners to expand the numbers of medical school and residency trainees for their states or regions have markedly increased as the healthcare professional shortage becomes more acute. This becomes extremely difficult under the current structure, in which students from our partner states and from Eastern and Central Washington spend their first year at their home state institution, come to Seattle for second year, and then complete clinical rotations at various locations throughout the five-state region. There is not the capacity (physically and in manpower) to accommodate all students in Seattle during the critical second year. The large classrooms and lecture halls in Seattle are at their maximum capacity and unable to accommodate the current enrollment of 240 students in the 2014 entering class. Providing the seconding year of medical school at regional sites is a critical factor in the expansion of the numbers of medical students.

Planning for these changes began several years ago, and has involved many faculty and students of the school. In order to evaluate what is working well and what changes may be needed, due to new accreditation standards and class size expansion, the school embarked on a one year period of self-study (the pre-curriculum review) in 2011. Over 300 faculty and staff were engaged through direct involvement with committees, town halls, and meetings held in the WWAMI states to speak directly to teaching faculty and students. This was followed by additional involvement of faculty in building curriculum vision and basic structure, ending with the development and approval of a curriculum model.

Proposed School of Medicine Curriculum Model

The basic science phase of the curriculum will move from a disciplined based first year and organ system based second year (which is currently 24 months long), to a shorter, 18 month, foundations phase with block courses integrating discipline and organ system content throughout. There will also be a longitudinal clinical experience starting in the first weeks of medical school. Key components of the proposal are: 1) an initial period with instruction in the necessary clinical basics to ensure that all students are ready for a patient care foundations experience; 2) the anatomy instruction spread throughout most of the foundations phase; and 3) a reduction in classroom time; and 4) an increase in active learning pedagogy. Current content will be consolidated by integrating pathology, anatomy and pharmacology into every block.

Currently, there are 36 discipline-based courses in the first and second year of the medical curriculum for 147 total credits. The proposed curriculum will have 7 blocked courses in the first and second year and two longitudinal courses; a foundational patient care clerkship and a longitudinal clinical skills course for 110 total number of credits. These 9 courses will be taught in a synchronous manner across all WWAMI sites (Seattle, Washington; Spokane Washington, Laramie, Wyoming, Anchorage, Alaska, Bozeman, Montana and Moscow, Idaho) with shared content, shared curricular resources and congruent assessment and evaluation. LCME standards mandate that course objectives, effort and assessment must be congruent across sites.

Students in the foundations phase of the curriculum will remain at the site at which they begin their medical education for the entire 18 months (with the exception of Wyoming), in contrast to our current model, in which medical students spent 12 months at the site at which they begin their medical education and 12 months in Seattle for year two of their medical education.

The curriculum will be considerably more integrated than it is now. For example, in the current curriculum, there are discrete courses for cardiovascular, respiratory and renal-urinary systems. Under the new curriculum, these topics will be integrated into a single 10-week course titled Circulatory Systems, which will emphasize the physiology, anatomy, pathology, imaging, and common clinical diseases of the cardiovascular, respiratory, and renal-urinary systems.

Another major change is that instead of the substantial portion of time in lecture that we currently have, the students will spend a maximum of 4 hours, 4 days a week in classrooms, with a maximum of 1 hour of that time in formal lecture. Students will be expected to prepare in-depth for classes in advance and will spend considerably more time in small-group work than currently occurs.

Students will begin their education with training in basic clinical skills and have early exposure to patients, spending one day each week out of the classroom and working with physicians and other health professionals in patient care settings. They will also complete special experiences (labs, simulations, etc).

The patient care phase of the medicine curriculum, which is the equivalent to years three and four, is not undergoing content change at this time. However, the clinical curriculum will begin earlier (March of the student's second year), to provide more time for board examination preparation in year two and career exploration in year four. Clinical clerkships will remain discipline-based and administered by school of medicine departments.

The governance of the School of Medicine curriculum will change to align with LCME requirements. A Curriculum Committee will have authority and accountability for oversight of learning objectives, curriculum implementation, and evaluation procedures for the curriculum. The Curriculum Committee will be structured to represent all faculty and assure continuous oversight and evaluation of curriculum per LCME requirements. Phase and theme committees will be established to address cross-cutting themes across the curriculum. The goal of the new governance structure is to assure that the curriculum is of high quality, delivered equivalently across all sites, and continuously improved.

Projected Enrollments

The projected enrollments across all campuses for academic year 2015 follows:

Foundations phase Term 1
12 months

Seattle, Washington - 100
Spokane, Washington - 40

Laramie, Wyoming - 20
Anchorage, Alaska - 20
Bozeman, Montana - 20
Moscow, Idaho – 30

Foundations phase Term 2
Month 13 – 18

Seattle, Washington - 120
Spokane, Washington - 40
Laramie, Wyoming – 0 (Students to Seattle)
Anchorage, Alaska - 20
Bozeman, Montana - 20
Moscow, Idaho – 30

Student Learning Objectives

Each foundations block has 10-15 high level learning objectives, which are the same across all teaching sites. The objectives will be measured by a variety of assessment tools, including multiple choice test items, short essays, reflective papers, skills checklists and observations, and short projects. All assessment items will be associated with specific performance objectives and well as content themes. Evaluation of performance will be based on a criterion model, with an emphasis on determining if a student has met the core objectives of the educational unit, resulting in a grade of pass or fail. Assessment will be frequent, e.g. every two weeks, to allow early identification of failure to meet criteria and allow for immediate remediation. Intersessions between blocks will be available if more extensive restudy and assessment is needed. Detailed tracking of objectives, assessment, and student performance will be available through the use of an advanced curriculum management system and student performance portfolio backed by an extensive performance database.

Assessment and grading

Examinations will cover the course objectives as emphasized in lecture, case-based discussions, small groups and the syllabus. Assessment methods will include multiple choice test items, short answer test items, brief essays, problem sets, and reflective pieces. All scoring of assessments will be related to evidence for the mastering of course objectives. Frequent summative assessments (every two weeks) with feedback will occur in block courses in order to allow students with marginal or poor performance to remediate gaps in mastery of objectives during the block. A concurrent, final assessment will be given to all students. The final examination may be waved at the discretion of the course chair for individual students if all objectives have been mastered before the final assessment. Passing performance for the block is determined by evidence of mastery of all major objectives for the course, and the majority of subsidiary objectives. Grades are pass / fail.

Catalogue Copy as currently published (revised copy is below)

School Overview

Dean

Paul G. Ramsey
C314 Health Sciences

Associate Deans

Scott Barnhart
Albert J. Berger
John B. Coombs
D. Daniel Hunt
Eric B. Larson
Richard A. Molteni
Thomas E. Norris
Gordon A. Starkebaum
Andrew A. Ziskind

Assistant Deans

Carol F. MacLaren
Susan G. Marshall
Werner E. Samson

WWAMI Coordinators/Assistant Deans

Dennis Valenzano, University of Alaska (interim)
James R. Blackman, Boise, Idaho
Philip D. Cleveland, Spokane, Washington
Andrew Turner, University of Idaho and Washington State
University
Sylvia J. Moore, University of Wyoming
Dwight E. Phillips, Montana State University (interim)

Established in 1946, the School of Medicine is the only medical school directly serving the states of Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI). Located in the Warren G. Magnuson Health Sciences Center, the School operates a decentralized program of medical education (WWAMI) via a regional network of teaching affiliates. The School's basic-science departments provide educational opportunities for students from all schools and colleges within the University. Clinical teaching programs are conducted at the University of Washington Medical Center, Harborview Medical Center, Seattle Children's, and the Veterans Affairs Puget Sound Health Care System, as well

as at other clinical affiliates in Seattle and throughout the WWAMI states.

The School admits approximately 210 medical students to its first-year class and has a total enrollment of over 800 students pursuing the Doctor of Medicine degree. The fulltime faculty numbers approximately 1,700 members. The affiliated University residency-training network enrolls approximately 900 house officers. Enrollment in the graduate programs in the basic sciences exceeds 500 students, and approximately 800 postdoctoral fellows are enrolled in various advanced training programs. The School has baccalaureate and graduate programs in occupational therapy, physical therapy, prosthetics and orthotics, and medical technology. The School participates in training a broad spectrum of other allied health professionals. The School is also home for the for the Physician Assistant Training Program known as MEDEX.

WWAMI Program

The WWAMI program was initiated in 1971 as an effort to decentralize medical education, provide a broader range of educational opportunities for students, and address the need for primary-care physicians oriented toward rural practice. It is an integral part of the undergraduate medical curriculum and is a fully accredited program of the School of Medicine. The WWAMI program is named for the five states (Washington, Wyoming, Alaska, Montana, and Idaho) that share resources and responsibilities in the regional educational program. Funds appropriated to the WWAMI program by the Wyoming, Alaska, Montana, and Idaho legislatures assure each state of positions for its students in the entering medical class each year.

First-Year Training

In the first year of the WWAMI program, approximately 40 percent of the students admitted to the University's School of Medicine receive their first year of medical school training at Washington State University, the University of Wyoming, the University of Alaska, Montana State University, or the University of Idaho. Washington State University positions not filled by volunteers are assigned by lottery. Every Washington-resident applicant should recognize the opportunity of assignment to Washington State University during the first year. Students from Wyoming, Alaska, Montana, and Idaho attend their home-state institutions. While

at these institutions, they enroll in prescribed one-year medical school basic-science courses taught by on-site science faculty and are provided supplemental resources from the University of Washington's School of Medicine faculty. These students join their classmates at the UW's campus in Seattle for their second year of medical studies.

Third- and Fourth-Year Training

At the conclusion of the second year, students enter the portion of the curriculum that is predominantly clinical. Required, selective, and elective clerkships are described below. As part of clinical training, students complete clerkships at the UW, at its affiliated hospitals, or at community clinical units located in the five-state region. During third and fourth-year clerkships, School of Medicine full-time and clinical faculty members provide supervised clinical training in required as well as elective clerkships through the WWAMI region.

Proposed Change to UW Catalogue

School Overview

Dean

Paul G. Ramsey

C314 Health Sciences

Vice Deans

Suzanne Allen

Ellen Cosgrove

David Dugdale

Byron Joyner

John Slattery

Associate Deans

Mary Nora Disis

Anne Eacker

Erika Goldstein

Mark Green

Mary Fran Joseph

Sheila Lukehart

Michael Ryan

Carol Teitz

WWAMI Coordinators/Assistant Deans

Jane Shelby, University of Alaska

Mary Barinaga, Boise, Idaho

Jay Erickson, Montana

Larry Kirven, Wyoming

John McCarthy, Eastern and Central, Washington

Tom Nighswander, Alaska

Darryl Potyk, Spokane, Washington

Jeff Segmiller, University of Idaho

Ken Roberts, Washington State University, Spokane

Tim Robinson, University of Wyoming

Ki Shin, Western Washington

Martin Teintze, Montana State University

Established in 1946, the School of Medicine is the only medical school directly serving the states of Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI). Located in the Warren G. Magnuson Health Sciences Center, the School operates a decentralized program of medical education (WWAMI) via a regional network of teaching affiliates.

The School's basic-science departments provide educational opportunities for students from all schools and colleges within the University. Clinical teaching programs are conducted at the University of Washington Medical Center, Harborview Medical Center, Seattle Children's hospital, Northwest Hospital & Medical Center, Valley Medical Center, and the Veterans Affairs Puget Sound Healthcare System, as well as at other clinical affiliates in Seattle and throughout the WWAMI states.

The School admits approximately 240 medical students to its first-year class and has a total enrollment of over 1000 students pursuing the Doctor of Medicine degree. The full-time faculty numbers more than 2,100 members and there are more than 4,500 clinical faculty located throughout the WWAMI region. The affiliated University residency-training network enrolls more than 1,200 house officers. Enrollment in the graduate programs in the basic sciences exceeds 600 students, and approximately 1,000 postdoctoral fellows are enrolled in advanced training programs. The School has baccalaureate and/or graduate programs in occupational therapy, physical therapy, prosthetics and orthotics, and medical technology. The School participates in training a broad spectrum of other allied health professionals. The School is also home for the Physician Assistant Training Program known as MEDEX.

WWAMI Program

The WWAMI program was initiated in 1971 as an effort to address the maldistribution and shortage of physicians in the Northwest region, provide a broader range of educational opportunities for students, and address the need for primary-care physicians oriented toward rural practice. It is an integral part of the undergraduate medical curriculum and is a fully accredited program of the School of Medicine. The WWAMI program is named for the five states (Washington, Wyoming, Alaska, Montana, and Idaho) that share resources and responsibilities in the regional educational program. Funds appropriated to the WWAMI program by the Wyoming, Alaska, Montana, and Idaho legislatures assure each state of positions for its students in the entering medical class each year.

Foundations Phase Training

The University of Washington School of Medicine is nationally recognized for its regional training program (WWAMI). In addition to providing unique clinical learning opportunities, the WWAMI program allows a small-group learning experience at the regional training sites, which many students prefer. Students from Washington (Spokane), Alaska, Montana, and Idaho complete their 18 month foundational curriculum in small learning groups in their respective home states. Wyoming students complete their first 12 month foundational curriculum in Wyoming. The state of Washington provides two sites for medical students to complete their 18 month, Foundations curriculum:

Seattle: uwmedicine.washington.edu/Education/Md-Program

Spokane: medicalsciences.wsu.edu/prospectivestudents/wwamiprograminfo.html

Small group learning experiences are available in Spokane. All Washington residents are required to rank one or more of these two sites in order of preference in their secondary application. Every effort is made to match accepted Washington students with one of their preferred sites.

More information and video testimonials from first-year Spokane medical students are available at: uwmedicine.washington.edu/Education/MD-Program/Admissions/WWAMI-First-Year/Pages/default.aspx

Offers of acceptance are conditional upon agreement to participate in the WWAMI program.

Patient Care Phase Training

At the conclusion of the foundations of science phase, students enter the portion of the curriculum that is predominantly clinical. Required, selective, and elective clerkships are described below. As part of clinical training, students complete clerkships at the UW, at its affiliated hospitals, or at community clinical units located in the five-state region. During third- and fourth-year clerkships, School of Medicine full-time and clinical faculty members provide supervised clinical training in required as well as elective clerkships through the WWAMI region.