University of Washington School of Medicine
Curriculum Renewal

Advanced Clinical Skills, Exploration, and Career Focus Phase
Curriculum Review Committee
Report to the Steering Committee
April 9, 2013

Committee Members

Laura-Mae Baldwin (Co-Chair)  Neal Futran (Co-Chair)  Adeyinka Adedipe
Nina Bozinov  Lisa Castaneda  Jeanne Cawse-Lucas
Michael Fialkow  Michael Gofeld  Joan Goverman
Deb Harper  John Loeser  Tom McNalley
Susan Merel  Gautham Reddy  Ken Steinberg
Michelle Terry  Melissa Upton  Bob Waterston
Mark Wicks

Committee Charge

To develop recommendations for models of the 4th year requirements, including but not limited to reconsidering the composition of the suite of required courses and more individualized approaches to requirements based on career choice.

Committee Purposes

The Advanced Clinical Skills, Exploration & Career Focus Phase Committee is created for the purpose of making recommendations to Ellen Cosgrove, Vice Dean for Academic Affairs, and the Curriculum Renewal Steering Committee, with the goal of developing an optimal approach to advanced training for medical students currently covered by the fourth year of medical school. As part of its deliberations, the committee should address the length and timing of advanced training at the UW School of Medicine. The specific purposes of the Committee may include the following responsibilities:

• Critically assess UW School of Medicine’s curricular programs that currently work well in teaching advanced clinical skills, exploration and career focus and those programs that either need improvement or should be terminated, including justification for any such recommendations.

• Recommend new programs and/or approaches that will advance and improve education in advanced clinical skills, exploration and career focus (currently primarily covered in the fourth year of the medical school)
curriculum), including justification for any such recommendations, while acknowledging the needs and demands of the additional areas identified as priorities within the School of Medicine curriculum renewal.

- Work collaboratively with the other curriculum renewal committees and the Steering Committee to ensure that education related to advanced clinical skills, exploration and career focus are integral, integrated and vital parts of the UW School of Medicine curriculum.

**Meeting Dates**

January 10 and 31, 2013  
February 21, 2013  
March 7, 14, and 21, 2013

**Meeting Process**

Over a series of 6 meetings, the Advanced Clinical Skills, Exploration and Career Focus Phase Curriculum Review Committee:

1) reviewed its charge,
2) shared and discussed ideas and concerns related to this phase of the medical school curriculum,
3) reviewed and discussed existing literature on the “fourth year” curriculum (attached),
4) reviewed the structure of the final medical school phase at a number of medical schools nationwide, and
5) identified recommended objectives, structure, and content, including curricular innovations, for this phase.

**Summary of Committee Recommendations**

1. Initiate the Advanced Clinical Skills, Exploration, and Career Focus Phase in mid March of the third year to allow more time for career exploration.
2. Allow flexible clerkship scheduling so that students can explore a potential career choice area in the Clinical Phase.
3. Require a 4-week sub-internship for graduation.
4. Expand the chronic care curriculum requirement.
5. Shift the 4-week Emergency Medicine and the 4-week Surgical Specialties rotations from requirements to electives.
6. Expand required clinical coursework time in the Advanced Clinical Skills, Exploration, and Career Focus Phase from 32 to 36 weeks.
7. Hold one-week intersessions throughout the Advanced Clinical Skills, Exploration, and Career Focus Phase.
8. Shift the Capstone Course to a Transition to Residency Course of at least
two weeks duration whose primary goal is preparation for residency.

9. Integrate career exploration opportunities into the curriculum starting in the Foundations Phase

10. Provide Career Maps in each clinical specialty to guide students in preparing for residency and residency application.

11. Require a meaningful scholarship experience prior to graduation.

12. Develop a menu of Certificate Programs that allow students special curricular opportunities, each with a high quality, defined curriculum.

Themes

Two main themes emerged from the committee’s discussions:

• Integration. The committee discussed the importance of several types of integration – integration of basic sciences with clinical sciences; integration of career exploration opportunities into core curricular offerings; integration of the recommendations of the other “fabric” committees throughout the offerings in the Advanced Clinical Skills, Exploration, and Career Focus Phase.

• Flexibility. We support tailored educational opportunities to each student’s interests and career trajectory. We believe that the Clinical and Advanced Clinical Skills, Exploration, and Career Focus Phases should be considered a continuum, with flexibility to move required courses traditionally (and usually) offered in the Clinical Phase to the Advanced Clinical Skills, Exploration, and Career Focus Phase so that a student can pursue his or her interest in non-required clinical area.

Objectives of the Advanced Clinical Skills, Exploration, and Career Focus Phase

The committee identified four major objectives of the Advanced Clinical Skills, Exploration, and Career Focus Phase:

• Career exploration. Career exploration begins with the first day of medical school. Career exploration opportunities should be available starting in the Foundations Phase (e.g., role playing of different specialties in case studies as part of course curricula, preceptorships with clinicians, interactions with clinical advisors) and continuing through both clinical phases up to the point of residency application.

• Residency preparation. Skills learned throughout medical school prepare students for their next phase, residency training, but we believe that the 5 months (Jan-May of the 4th year) after residency application offers a time to focus on residency preparation. In particular, the committee believes that the “Capstone Course” at the end of the medical school curriculum should be shifted to a Transition to Residency Course used to prepare students for their upcoming residency experiences.
• **Skills for lifelong learning.** We expect skills for lifelong learning to be taught throughout the medical school curriculum. However, we believe that the Advanced Clinical Skills, Exploration, and Career Focus Phase provides an opportune time for more concentrated coursework in skills for lifelong learning. Students may be more receptive to these skills as they launch into the next step of their training.

• **Scholarship opportunities.** Meaningful scholarship should be a requirement for graduation, and the Advanced Clinical Skills, Exploration, and Career Focus Phase provides the opportunity to tie this scholarship to a student’s projected or chosen career field. This would replace the current III requirement.

**Recommended Structure of the Advanced Clinical Skills, Exploration, and Career Focus Phase**

• **Initiate the Advanced Clinical Skills, Exploration, and Career Focus Phase in mid March of the third year** to allow more time for career exploration. A substantial proportion of students are expanding to a five year curriculum because they have inadequate time for rotations and other experiences that allow them to explore career options and prepare them for residency applications (e.g., research, development of relationships with mentors in chosen specialty).

• **Divide the Advanced Clinical Skills, Exploration, and Career Focus Phase into career exploration and career preparation segments, separated by a residency application/interviewing segment.** We expect the residency interview period to span 8 weeks, but assume that students would spend 3-8 weeks of time in interviews. No required core clerkships should be taken during the time that residency interviews occur, otherwise key curriculum is missed. Students may consider taking required elective clerkships during this time, but should determine whether time away for residency interviews is allowable prior to registering for the clerkships.

• **Provide flexible scheduling** to allow clerkships in a student’s potential career choice area in the Clinical Phase. This would shift some required clerkships from the Clinical Phase to the Advanced Clinical Skills, Exploration, and Career Focus Phase.

• **Offer flexibility in the length of elective clerkships** (e.g., 2-week as well as 4-week options) so that students can be exposed to a variety of career options.

• **Shift the required 4-week Emergency Medicine and the 4-week Surgical Specialties rotations to electives** in the Advanced Clinical Skills, Exploration, and Career Focus Phase, if chosen by students.

• **Require that a 4-week sub-internship** take place during the Advanced Clinical Skills, Exploration, and Career Focus Phase. Some students may take this during the career exploration segment, and some during the career preparation segment.
• Expand the chronic care curriculum in the Advanced Clinical Skills, Exploration, and Career Focus Phase (though some of this curriculum could be offered in Foundations and Clinical Phases). Each of the components of the chronic care curriculum (geriatrics, chronic pain, palliative care, rehabilitation medicine) is important for physicians, regardless of their specialty choice. There was debate within the committee about the appropriate length of the chronic care curriculum (6-8 weeks).

• Expand the required clinical coursework time in this final phase from 32 to 36 weeks (24-26 weeks of elective time, 10-12 weeks of required clerkships, depending on the length of the chronic care curriculum).

• Offer one-week intersessions throughout the Advanced Clinical Skills, Exploration, and Career Focus Phase, and synchronize these intersessions with those in the Clinical Phase. By synchronizing with the Clinical Phase, we will maximize students’ flexibility, allowing them to shift a required core clerkship from the Clinical Phase to the Advanced Clinical Skills, Exploration, and Career Focus Phase. Students then can explore a career option that is not in one of the required clerkship areas (e.g., a surgical specialty). The intersessions can also be used to bring basic science knowledge to clinical applications (e.g., case-based discussions), and bring standard training in skills for lifelong learning (e.g., team STEPPS, precision science, evidence-based medicine).

• Shift the Capstone Course to a Transition to Residency Course, increase its length to at least two weeks, and make its primary goal preparation for residency. There could be tracks within the Transition to Residency Course specific to a student’s career choice, and these tracks might be of differing lengths, depending on their content. For example, students entering careers that require surgical skills might participate in a longer Transition to Residency Course that emphasizes procedural skills, using ISIS. All students might be required to take part in coursework such as ACLS, literature review, bedside ultrasound, and diagnostic test ordering. The content of the Transition to Residency Course tailored to a student’s career choice could be developed in collaboration with clinical departments as part of the “Career Maps” that they develop (see below). We anticipate the Transition to Residency Course would be at least two weeks at the end of medical school (could be longer with additional modules for students in some career paths). There was debate within the committee regarding when to complete the Transition to Residency Course (ending one week prior to graduation or in the same week as graduation).

• Integrate career exploration opportunities starting in the Foundations Phase. Examples include role playing of different specialties in case studies as part of course curricula, clinical preceptorships during intersessions. We believe that career exploration opportunities throughout the curriculum, but especially in
the Foundations Phase, should emphasize those careers that are of highest need in the WWAMI region, thereby emphasizing the UWSOM’s commitment to meet the health workforce needs of the region.

• There are roughly 64 weeks of time from mid March in the 3rd year through the end of the 4th year. Career preparation begins after residency interviews are completed, roughly the end of January. The time would be spent as follows:
  1) 3 weeks preparing and taking USMLE Step 2
  2) 10-12 weeks of required clinical coursework (chronic care, expanded to 8 weeks, sub-internship of 4 weeks)
  3) 24-26 weeks of required elective coursework. This assumes neurology takes place in the Clinical Phase.
  4) 3 intersession weeks
  5) 3-8 weeks of residency interview time
  6) 8-12 weeks of scholarship
  7) 2 week Transition to Residency Course (2 week basic course, more Transition to Residency Course time will depend on Career Map and specialty preparation needs)

Recommended Content of the Advanced Clinical Skills, Exploration, and Career Focus Phase

We believe the content should solidify the expected fourth-year competencies and offer clinical experiences that best prepare students for residency training. The fourth year should assist students in making the transition to residency and include curricular innovations.

Career Exploration

• Career Mapping. Content of the Career Exploration and Career Preparation segments should be guided by Career Maps offered by clinical departments. These Career Maps should be developed by faculty and residents in each clinical specialty to guide students in the necessary requisites to be adequately prepared for residency and competitive for residency application. The framework could start in year 1, and continue throughout the medical school experience. The following content and the ideal timing of each should be included in the Career Maps: preceptorships; clinical clerkships; appropriate electives; sub-internship; scholarship/research recommendation; procedural skills, etc. This will require flexible scheduling depending on the particular area of interest.

• Early career opportunities should emphasize workforce needs of the region. For example, longitudinal clinical clerkships in the Foundations Phase could be offered only in those specialties that are needed most in each state.

• Meaningful scholarship should be a requirement for graduation. The Advanced Clinical Skills, Exploration, and Career Focus Phase is a good time to
engage in a meaningful scholarship opportunity. Again, the Career Map can help guide the timing and type of scholarship project.

- **A greater percent of the student population should participate in the Longitudinal Integrated Clerkship experience.** These LICs could be lengthened to provide elective credit relevant to career exploration or preparation.

**Career Preparation**

- The UWSOM should develop a menu of **Certificate Programs** (e.g., specialty-specific, global health, public health, biomedical informatics, academic teaching) each with a high quality, defined curriculum. Some of these programs might start in the first year of medical school (e.g., like the current pathways); others might be completed in the Advanced Clinical Skills, Exploration, and Career Focus Phase.

- The **4-week sub-internship** requirement is not required to be in the student’s specialty choice area. The Career Maps would provide guidance to students on the sub-internship options ideal for their career choice. This may require an expansion of the definition of sub-internships. Standardization of the core competencies that students should attain on this clerkship is also critical.

- **Integration of basic science and clinical medicine** is an important component of intersessions, and would best be taught via case studies.

- **Intensive ISIS experiences** (e.g., surgical training, simulated resuscitation, test ordering) are an important component of residency preparation, and should be included in the Transition to Residency Course. Examples include: Team STEPPS training, resuscitation simulations on a SimMan, ACLS or PALS training, bedside ultrasound, focused pathology, radiology, and lab medicine for the new physician.

- **Skills for lifelong learning** that could be included in the Transition to Residency Course, as electives, or in an intersession include health policy, basics of quality improvement, practice management, including financial management, evidence-based medicine, critical literature assessment, grief and bereavement, optimal utilization of diagnostic testing in pathology and the clinical laboratory, and physician wellness.

**Open Questions**

The committee did not resolve, fully discuss, or draw conclusions about the following questions:

- How much time should be required for certain curricular activities (e.g., scholarship, the chronic care clerkship)?
• How much flexibility should be allowed in shifting required core clerkships from the Clinical Phase to the Advanced Clinical Skills, Exploration, and Career Focus Phase. Concern was raised that this shift might impact preparation for and timing of USMLE step 2.
• What should be the timing of USMLE step 2 (in general, our committee supports flexibility)? How much preparation time for USMLE should be given?
• What is the role of community service in the Advanced Clinical Skills, Exploration, and Career Focus Phase?
• How will the UWSOM make sure clerkships are more available to students when they need them?
• How long should the Transition to Residency Course be?
• What types of experiences qualify as “sub-internships?” Could these be called “advanced clinical clerkships?” Could intensive outpatient rotations qualify?
• What will qualify as “meaningful scholarship” in the Advanced Clinical Skills, Exploration, and Career Focus Phase?
• How should we integrate the recommendations of the fabric committees into the Advanced Clinical Skills, Exploration, and Career Focus Phase offerings?
• Though outside the purview of our committee, several committee members raised concerns about how the new curriculum, especially in the Foundations Phase, will accommodate MSTP students’ need for dedicated laboratory time in the summer before their first and second medical school years? This is a critical time for these students to explore their research direction for the PhD component of their training.