I. Appendix C: Comprehensive Competency Review

The MS in clinical research is intended to train you in the skills, knowledge, and professional norms appropriate for clinical researchers, with a specialization in one of four tracks. To help students be confident that they are on track to develop competence in all the key areas, the Comprehensive Competency Review (CCR) meeting takes place at the midpoint of the degree.

Timing:

Students who plan to complete the master’s degree in 2 years schedule their CCR meeting after they complete the summer core and the fall semester, usually prior to completing class registration for the following academic year. Students who plan to take less than, or more than, 2 years to earn their degree should schedule their meeting around the time they complete 15 credits.

Process:

1. Students provide written answers to 3 questions (see Appendix C.i) that ask students to reflect on their learning in the program thus far. These answers should be no more 250 words.

2. Students provide evidence that they have acquired or are on their way to acquiring each of 6 competencies emphasized in the summer core courses: Problem formulation, methodology, sampling, measurement, data management and biomedical informatics, and applied analytic techniques (see http://www.icre.pitt.edu/cbe/competencies.html for the full list of 11 competencies, and http://www.icre.pitt.edu/cbe/MSrubric.pdf for the Master’s of Clinical Research Rubric). Students also write a short reflective statement about each artifact (piece of evidence) and why they chose it to reflect their competence. (See Appendix C.i.i.)

3. From the remaining five competencies, students provide a short written reflection about 3 other competencies of their choosing (again, see http://www.icre.pitt.edu/cbe/competencies.html for the full list). These should be competencies they feel they have not yet acquired. The written reflection must include an action plan for acquiring these 3 competencies. (See Appendix C.i.i.)

4. Students should come to the meeting prepared to field questions about their progress toward acquiring any of the 11 competencies (see http://www.icre.pitt.edu/cbe/competencies.html for the full list).

The committee reviews the evidence and written statements prior to the meeting. During the meeting, faculty discuss with the student why they chose specific pieces of evidence, concentrating on pieces that may not show the highest level of competence, or where some explanation is required. Faculty encourage the student to reflect on their learning and areas for improvement in the second half of the program, guided by the students’ written answers.

Finally, the committee and the student discuss the student’s thesis plans, ensuring that necessary skills and knowledge can be gained from the classes the student intends to take.

At the end of the meeting, the student steps out for a short period of committee discussion. The track director completes the Comprehensive Review Form, detailing areas of competence and areas for
improvement, agreed steps for improvement, courses the student should take, and focus of thesis. All committee members and the student sign the form, and the track director indicates whether the student has passed the review.

Committee:

- Specialty Track Director
- Dr. Colleen Mayowski

Organization:

Students are responsible for the scheduling of their CCR meeting. This meeting should be scheduled for 1.5 hours and, once a time and date are confirmed with both Dr. Mayowski and the student’s academic advisor, the student is responsible for communicating this meeting to the Degree Program Coordinator. The Degree Program Coordinator will reserve a location for the meeting and distribute the meeting notification through Outlook. Students must provide the committee with electronic copies of their documents (as a single file) at least 1 week before their meeting. Track directors are responsible for delivering the completed Comprehensive Review Form to the degree program coordinator.

Unsatisfactory Review:

Students who do not pass the CCR will develop, with their track director, an appropriate course of action to ensure that they are on course to become competent by graduation. Students will be offered the chance to create a new set of evidence and write new reflections of their learning within six months of the original meeting. Students will not be able to register for any thesis credits until they have passed the CCR. Students will be strongly discouraged from taking CLRES 2071/2072 until they have passed the CCR.

II. Appendix C.i: Written Reflections

These questions are intended to make you think about your learning in the MS program thus far. Include in your answers any thoughts or comments that you think are relevant to your progress and overall development as a clinical researcher. A template that includes an example of how some of your colleagues have answered these reflective questions is available on the ICRE Master of Science webpage.

1. What is the most important skill (not knowledge) that you have acquired in the program?

   *Describe why the skill is important to your career as a clinical researcher, and what has contributed to your learning in this area.*

2. Where do you feel you need to focus your learning to achieve broad competence as a clinical researcher?

   *Describe why you need this skill set or knowledge, how you will acquire it, and how*
you became aware that you are not yet competent in this area.

3. What have been the greatest challenges to you in the program so far?

Consider specific areas of knowledge, skill sets, or experiences that have caused you difficulty. Describe the steps you will take to overcome these challenges in the second half of your program.

III. Appendix C.ii: Evidence of Competence

Select one piece of evidence that you have acquired or are on your way to acquiring each of 6 competencies emphasized in the summer core courses: Problem formulation, methodology, sampling, measurement, data management and biomedical informatics, and applied analytic techniques (see http://www.icre.pitt.edu/cbe/competencies.html for the full list of 11 competencies, and http://www.icre.pitt.edu/cbe/MSrubric.pdf for the Master’s of Clinical Research Rubric). Then, write a short reflective statement about each artifact (piece of evidence) and why you chose it to reflect your competence. A template that includes an example of evidence and how some of your colleagues have answered these reflective questions is available on the ICRE Master of Science webpage. (Used with permission.)

Each piece of evidence should be no more than 1 page, so it could be part of a longer paper, a section from homework, a slide from a talk, etc. In selecting your evidence and thinking about the competencies, consider the following points and be prepared to answer any of these questions with your CCR committee:

- What have you learned?
- Why is this learning important?
- Why did you choose these particular pieces of evidence?
- What work did you consider as evidence and then not include? Why?
- What is there still left to work on within this competency? How will you do that?
- What is your strength in this competency that these pieces demonstrate?
- What about this competency has been difficult to acquire?
- Why do you think this competency and what you have demonstrated is important for clinical research?
- How will you apply the competency you have demonstrated in your professional life?
- How do you feel about deepening your mastery of this competency?
- How have your different learning experiences (writing, discussions, critiques, reading) come together as an integrated whole, and how will that integration deepen as you apply this competency?

Next, from the 5 remaining competencies, choose 3 other competencies that you feel you have not yet acquired and write a short reflection about the importance of this competency and your action plan for acquiring it (again, see http://www.icre.pitt.edu/cbe/competencies.html for the full list). The written reflection must include an action plan for acquiring these 3 competencies. A template that illustrates how some of your colleagues have answered these questions is available on the ICRE Master of Science webpage. (Used with permission.)