<p style="text-align:center;color:red;">**MS-CB**</p>

<p style="text-align:center;">**<u>Learning Assessment Worksheet</u>**</p>

1. Please describe your program's specific learning goals (list as many as appropriate; use 1-2 sentences to describe each):

Goals of the M.S. Program in Computational Biology

To produce trainees who are:

1. **Proficient in current practical and theoretical aspects of the field.** Teach students an array of computational and quantitative approaches, applied to a wide range of topics within biology and medicine. Assist the student in obtaining thorough understanding of a specialized topic in computational biology and/or medicine.

2. **Able to conduct research project.** Assist the student in developing competencies in carrying out an individual research project.

3. **Experienced in presenting scientific data, orally and in writing.** Enable the student to develop skills in scientific writing and oral presentation.

4. **Experienced at reading primary literature in a critical manner.** Assist the student in developing the tools needed for critical evaluation of published research.

5**. Aware of ethical standards in research**. Inform and help incorporate the elements of responsible conduct of research into the student's work habits and professional activities.

6. **Experienced in career development processes and tools**. Assist the student in developing their career self-awareness and skills as they relate to conducting a successful job search and relevant professional development.

2. Does your program have a process in place to assess whether the students meet the defined learning goals? If so, please describe this learning assessment process, including who is involved, frequency of the assessment, and how the information is used:

Our learning assessment is comprised of:

1. **Exams and assignments associated with coursework.** The bulk of the program coursework is on practical and theoretical aspects of computational biology but students also take courses in career development and responsible conduct in research. Courses have exams and/or assignments for learning assessment.

2. **Thesis progress meetings**. During the second half of the 18-months program, students focus on a thesis research project. Progress on research and associated skills are assessed through several meetings: students are required to attend a thesis progress meeting (with the Program Director), a program conference (with research mentors and fellow program students), and a culminating oral MS thesis defense (with the student's Special Committee).

3. Does your program currently systematically collect, store, and/or use for learning assessment at the program level any of the following outcome measures:

   Note: the program is new – the first cohort of students started in the fall semester of 2018. Some of the measures below have not yet been collected but we have forms and systems in place to do so unless indicated.

	Collect systematically	Electronically or paper stored	Use for learning assessment

	(Y/N)	(E/P)	(Y/N)
Direct measures:			
• Results of exams/tests for individual courses	Y	E	Y
• Results of Admission to Candidacy Exam	N/A		
• Quality of dissertations (eg, by sampling identify trends)	N		
• Number of student publications and abstracts	Y	E	Y
• Quality of students' presentation skills	Y	E	Y
• Program metrics (eg, time to degree, completion rates)	Y	E	Program assessment, Y
• Other (please describe):			
Indirect measures:			
• Student feedback			
○ Student surveys	Not yet formalized	E	Program assessment, Y
○ Focus groups	N		
○ Exit interviews	N		
• Alumni survey	Not yet, but will be in place when first cohort graduates	E	Program assessment, Y
• Career tracking	Not yet, but will be in place when first cohort graduates	E	Program assessment, Y
• Other (please describe):			

4. Does your program regularly review and adjust (1) the program's specific learning goals, and/or (2) the manner in which outcomes are measured and how the information is used? If so, please describe how this is done:
1. Informal discussions throughout the year between the Program Director, Course Directors, and Program Advisory Committee. These discussions typically involve how to achieve the learning goals. 2. Outcomes measurements have only been in place for a short time or have yet to be collected for the first student cohort. We expect to review outcome measurements and evaluate the program formally on an annual basis.