

The Portfolio

Once the MBMOC has approved the Learning Plan Proposal (now the Learning Plan), the next step to successfully earning the minor is to compile a portfolio of materials by which the student can clearly demonstrate proficiency in the areas of Data Acquisition, Modeling, Computation, Statistics, and Research. The portfolio shall contain two components: a reflective statement and a final product from work completed toward gaining the focal proficiency.

Reflective Statements. — To adequately demonstrate proficiency, the portfolio must include a clearly articulated (and well-edited) reflective statement. The reflective statement should demonstrate *reflection* on student learning while *explicitly* forming a link between the coursework, proficiency guidelines and the supporting materials are being submitted as a portfolio. For example, a student might describe how involvement in a course or research experience (i) changed her thinking about some aspect of Mathematical Biology, OR (ii) how she gained information to which she was previously naive and how that has altered/reinforced her thinking, OR (iii) how participation in a particular course or experience allowed her to make connections that previously eluded her, OR (iv) something that is not included in the list above, OR (v) some combination of the above ideas. Avoid simply describing course content or research procedures.

Final Product. — To adequately demonstrate a particular proficiency, the applicant must submit a well-written and edited final product that clearly demonstrates accomplishment of work that contributes to building proficiency in three (or more) of the focal areas of the minor. The final product may be documents submitted for a class project, a draft or reprint of a research paper, a poster given at a research conference, or the transcript of a research presentation (accompanied by the slides presented as visual aides during the presentation).

There is considerable flexibility in what constitutes an acceptable final product. Applicants for the minor should, nevertheless, bear in mind that each final product should meet a basic set of guidelines. Each final product, in conjunction with the accompanying reflective statement, must demonstrate an appropriate level of independent, critical thinking and reasoning. For example, the applicant should be able to demonstrate knowledge and perspectives appropriate for a 400-level course in the parent discipline and a 100-level course for majors in the partner discipline. Each product must either result from an independent project led by the applicant or, if the product is generated in collaboration with others, be accompanied by a clearly articulated statement of the applicant's contribution to the final product that is being submitted in support of the proficiency; the applicant's contribution to the final product must be directly and explicitly linked to the proficiency.

Although the members of the MBMOC encourage applicants to submit high quality final products, these need not be perfect in terms of study design or execution. Where work that is demonstrably flawed is submitted, however, it is critical that the applicant incorporate thoughtful analysis of these weaknesses into the accompanying reflective statement.