

## Interdisciplinarity@WMU- Phase One planning Template

1. **Brief Overview:** Provide a brief overview of the proposed interdisciplinary initiative. What types of questions would the initiative ask? What types of complex problems would it seek to solve?

Building on previous experiences piloted by Dr. Andre Venter (chemistry), Dr. Lisa Coons (music), Dr. Christopher Biggs (music), and Patrick D. Wilson (art), which culminated in interdisciplinary exhibitions in 2017 and 2019, we propose to expand the STEAM Collaboration by creating a dedicated class, or grouping of classes, that will focus on the intersection of scientific inquiry and creative modes of visualization and interpretation. This class will be coordinated by the Schools of Art, Theatre and Dance, and Music, as well as Chemistry and will allow students to apply their respective disciplinary practices to a collaborative interdisciplinary team project. The goals of the course will be to expose students to methods and technologies commonly employed in scientific research, examine topical subject matter that may be interpreted through the cooperative lens of art and science, and create a final public performance and exhibition to share this collaborative inquiry.

2. **Impacted units:** What existing units, programs, and colleges would be involved in the proposed initiative? What other possibilities for collaboration across campus or in the broader community might exist now or in the future?

This initiative will be a joint venture between the College of Fine Arts and the College of Arts and Sciences. The initial collaborative group will involve chemistry, art, music and dance. The model will be promoted to facilitate the partnership of other faculty combinations between the arts and sciences. Creating a template for this type of collaboration will increase the possibility that faculty members will engage in interdisciplinary collaboration and will reduce the strain on the administrators tasked with facilitating subsequent similar combinations of faculty and students.

A dedicated, interdepartmental course in the CFA will be offered concurrently with a complementary course in chemistry. The two classes will meet together periodically to build collaborative artworks based on a set of experiments developed and executed by the collaborators in science.

The collaborative structure of this proposal is more complex than a simple course offering. It will require the cooperation between an instructor of record who will oversee the production of artistic works and produce the final exhibition related to the class projects and several other faculty members who may serve as associated mentors for the project, and will contribute as necessary to provide discipline-specific context through auxiliary lectures and discussions, within the class and in their home departments. They may also oversee the use of facilities. Professors in art, music and dance, will act as mentors and will need to incorporate this project

into their periodic oversight of student progress. Because these efforts will be in addition to the associated instructors' normal teaching responsibilities, it is recommended that a stipend be provided to remunerate these efforts.

Currently this project has partial external funding through an NSF grant awarded to Dr. Andre Venter. The rich interdisciplinary potential as well as the associated public event makes this model a good candidate for other types of external funding, partnerships and press.

This structure may be applied to other groupings of faculty to create similar collaborations between the arts and sciences, and may evolve into its own track when combined with other related existing courses, such as ART 2900, The Skilled Observer in Art, Science and Engineering.

- 3. Impact on teaching, learning, and curricula:** Describe the anticipated impact of the proposed initiative on teaching, learning, and curricula. How might this initiative help to grow enrollment, including by reaching new audiences of learners through continuing education, dual enrollment, or professional certification? How will the proposed initiative positively impact the training of undergraduate and graduate students? How does it enhance our institutional commitment to diversity, equity, and inclusion?

The proposed initiative will support communication between disciplines and will demonstrate WMU's commitment to innovative teaching structures. The exposure to other disciplines will also encourage students to see the value in continued education in areas outside of their major. Furthermore, students involved in this collaborative structure will learn how to communicate core ideas of their practice to people outside of their discipline, demonstrating the relevance of their field to the broader community.

This type of interdisciplinary partnership leverages the distinct capabilities of our university environment to provide a type of learning that is not available at specialized art schools and conservatories.

- 4. Impact on research and creative activity:** Describe the anticipated impact of the proposed initiative on research and creative activity. How will this initiative promote discovery and creative scholarship? How might it result in increased external funding?

As noted above, this collaborative initiative has already been granted external funding, and as such has laid the foundation for future applications at the intersection of science and the arts.

- 5. Efficiencies and/or cost savings:** How might the proposed initiative contribute to increased efficiencies and/or cost savings, for example by reducing administrative positions (e.g. chairs/directors), sharing staff support services and/or by sharing facilities?

This initiative has limited impact on administrative positions. Because the structure of the course necessitates team projects, the impact to the facilities will be focused into a smaller number of more intense projects. It combines the student bodies of four departments and allows for a special-topics, theory in practice course to be taught with a higher than average anticipated enrollment for such a class. It therefore results in a more efficient student/teacher ratio without diluting the classroom experience. This does impact the assignment of SCH and some model for the fair distribution of this metric will have to be developed to support interdisciplinary initiatives under the new budget model.

We will explore the possibility of listing the CFA course under WES as one way to satisfy the Science and Technology requirement. The course may also be offered to CFA students as either a required component of their core curriculum or as an elective offering.

- 6. Impact on course offerings and workload:** At present, proposed initiatives will only be feasible and sustainable if they can be supported by existing resources, including instructional capacity, faculty and staff time, and facilities. Will the proposed initiative streamline existing course or program offerings? Could the initiative help create more equitable and sustainable workload for faculty, for example, by reducing the need to offer under enrolled courses, reducing the frequency of course offerings or eliminating the need to teach some courses?

This course may replace certain other elective requirements and will simultaneously fulfill degree requirements for students from multiple departments within the CFA. Based on the fact that the class will enroll from all three units within the CFA, we anticipate that the class will fill to capacity. We recommend a class cap for the CFA course of 20 students.

- 7. Additional Information:** What additional information would you like to provide in support of this proposal?

- 8. Contact**

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