

Michigan Technological University

Considerations for student design project funding methods for Enterprise and Senior Design programs

Background:

Michigan Tech has two mechanisms for administering sponsored senior design/Enterprise funding; **restricted projects** conducted under a formal contract between Michigan Tech and the Sponsor, and **unrestricted projects** that are conducted without a formal contract. Both mechanisms allow for Sponsor direction and reasonable specification of the project tasks and objectives but differ in the degree of specificity of project scope and the formal disposition of intellectual property resulting from the project.

Funding Method Considerations:

Capstone design projects are intended to provide students with an integrated learning experience that requires them to put engineering principles into practice in a 'real world' setting. Projects that are sponsored by industry and include the involvement of the Sponsor personnel in directing and managing the projects to practical and industrially relevant outcomes substantially increases the educational value of the projects. Therefore, projects that are intended to solve real problems that can be scoped to a level appropriate for undergraduate engineering students are most desired.

Projects that involve students working on Sponsor directed projects can be funded either in an unrestricted or restricted manner depending on the level of formality desired by the Sponsor. The following descriptions provide some context for considerations between the two.

Unrestricted Projects: Unrestricted projects are conducted without a contract. Objectives and desired outcomes can be defined by the Sponsor as long as the approach to achieve those objectives is left to the reasonable discretion of the student team. In receiving unrestricted funding for a project, Michigan Tech incurs no formal obligation to transfer rights to intellectual property resulting from the project to the Sponsor, however Michigan Tech is also not prohibited from transferring those rights if that is objectively determined to be the most effective way to achieve a commercially relevant application of the outcomes of the project. Projects that produce outcomes intended for the sole and exclusive benefit of the Sponsor should not be conducted as unrestricted projects. Confidential information provided by the Sponsor to project teams on unrestricted projects can be protected under non-disclosure agreements.

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Restricted Projects: The primary characteristics that distinguish restricted projects from unrestricted projects are; the formal disposition of intellectual property resulting from the project and the degree of Sponsor specification of project objectives and desired outcomes. Under restricted projects, the Sponsor is guaranteed access to intellectual property resulting from the projects under the terms of the contract negotiated between Michigan Tech and the Sponsor. Restricted projects allow for more highly specified outcomes that are directed to the sole and exclusive benefit to the Sponsor.

Boundary Considerations

Presentation of Project Outcomes: At the end of every semester, students on both restricted and unrestricted projects will present the outcomes of their project in a setting that is open to the campus. Students will not present confidential information provided by the project Sponsor under a non-disclosure agreement. Students will also generally respect the proprietary interests of the Sponsor in communicating project outcomes but can accept no formal obligation restricting presentation of the results of the project so long as those results do not include Sponsor provided confidential information.

Ability to Treat Sponsor Provided Information Confidential: On both restricted and unrestricted projects, students can be bound to non-disclosure agreements covering information provided by the Sponsor and that is proprietary to the Sponsor. When considering proprietary information to send to teams, consider that the teams are composed of students who will be seeking employment within your field and may be employed by a competitor upon the conclusion of their degree.

Guarantee of Project Results/Deliverables: As these projects are conducted by undergraduate engineering students, Michigan Tech cannot formally guarantee project results or deliverables on either restricted or unrestricted projects. Teams will make their best effort to satisfy the Sponsor's requirements and can be managed to produce results through active Sponsor participation and direction, but no formal guarantee of results can be provided on restricted or unrestricted projects.

Corporate Foundation Funding: Projects sponsored through not-for-profit corporate foundations must have scopes approved by foundation personnel for consistency and compliance with foundation funding guidelines.

Indemnity: As a public, not for profit educational institution, Michigan Tech cannot indemnify project Sponsors from consequences of their use of project results. Michigan Tech can take responsibility for the actions of its personnel and students at its facilities

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within the scope of the project but cannot accept responsibility for what the Sponsor chooses to do with the results of the project, and the consequences of Sponsor use or distribution of results.

Government Funding: Government funded projects (including projects funded by Industry using government funds – e.g. SBIR) typically must be processed as restricted projects with formal contracts that reflect government conditions on use of funds and disposition of project results.

Equipment Delivered to Sponsors: Projects that require sending prototypes or assembled equipment to the Sponsor with components valued at more than \$5,000 must be performed as restricted projects.