

**College of Engineering
Proposed Catalog Changes
Effective Summer 2020**

Department of Engineering

1. Add the following courses:

INDT 419 Industrial Sustainability Analysis

3 credits

Cross-listed with TM 419

This course covers two practical topics, which are Sustainability Assessment (Topic 1) and Advanced Manufacturing (Topic 2). Topic 1 establishes the concept of sustainability, and sustainable design and manufacturing. Under this section, we introduce the intersection of sustainability and manufacturing through sustainable development, sustainability principles, and sustainable engineering. Topic 2 provides an overview of what Advanced Manufacturing (AM) is, what approaches are used, what the possible applications are, and what the limitations of the technology are. We focus on AM processes, principles, sustainability performance of AM, and sustainability assessment of AM at the macro- and micro-level. Students will complete one project including techno-economic and socio-environmental studies in the broad area of food-energy-water processes and systems.

Distance Availability: Yes

Geographical Areas: Idaho Falls, online

Rationale: This course has already been offered as a special topics course in 2018-2019 and it is requested to be added as a permanent course.

TM 419 Industrial Sustainability Analysis

3 credits

Joint-listed with TM 519, Cross-listed with INDT 419

This course covers two practical topics, which are Sustainability Assessment (Topic 1) and Advanced Manufacturing (Topic 2). Topic 1 establishes the concept of sustainability, and sustainable design and manufacturing. Under this section, we introduce the intersection of sustainability and manufacturing through sustainable development, sustainability principles, and sustainable engineering. Topic 2 provides an overview of what Advanced Manufacturing (AM) is, what approaches are used, what the possible applications are, and what the limitations of the technology are. We focus on AM processes, principles, sustainability performance of AM, and sustainability assessment of AM at the macro- and micro-level. Students in the 500-level class will complete two different projects and students in the 400-level class will complete one project. The class projects include techno-economic and socio-environmental studies in the broad area of food-energy-water processes and systems.

Distance Availability: Yes

Geographical Areas: Idaho Falls, online

Rationale: This course has already been offered as a special topics course in 2018-2019 and it is requested to be added as a permanent course.

TM 519 Industrial Sustainability Analysis

3 credits

Joint-listed with TM 419

This course covers two practical topics, which are Sustainability Assessment (Topic 1) and Advanced Manufacturing (Topic 2). Topic 1 establishes the concept of sustainability, and sustainable design and manufacturing. Under this section, we introduce the intersection of sustainability and manufacturing through sustainable development, sustainability principles, and sustainable engineering. Topic 2 provides an overview of what Advanced Manufacturing (AM) is, what approaches are used, what the possible applications are, and what the limitations of the technology are. We focus on AM processes, principles, sustainability performance of AM, and sustainability assessment of AM at the macro- and micro-level. Students in the 500-level class will complete two different projects and students in the 400-level class will complete one project. The class projects include techno-economic and socio-environmental studies in the broad area of food-energy-water processes and systems.

Distance Availability: Yes

Geographical Areas: Idaho Falls, online

Rationale: This course has already been offered as a special topics course in 2018-2019 and it is requested to be added as a permanent course.