

UTAH ENGINEERING



Data Center Engineering Certificate

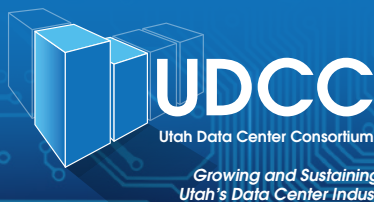
The curriculum required for the Undergraduate Data Center Engineering Certificate prepares students to deal with the specific needs and challenges of the complex environments of modern data centers in government, industry, and academia. In particular, the program provides students with skills associated with:

- Facility planning
- Decision making supporting operations management,
- Infrastructure design,
- Resource management for (large scale) data centers.

More information on the program curriculum can be found on the reverse side.

Utah Data Center Consortium (UDCC) Internship Program

The UDCC Internship Program is designed to provide the intern an opportunity to work in Utah's regional data centers for extended rotational periods with multiple data centers fostering an understanding of real world data center operation in multiple settings. The build of the program enables the intern a chance to work in data centers supporting missions ranging from asset colocation and marketplace hosting to government and even intelligence services and markets ranging from regional to international. The internship program also offers rotations with groups that support data center operation such as equipment manufacturers and consulting services.



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Data Center Engineering Certificate: A Multidisciplinary Program Curriculum

Computer Science

High Performance
Computing Resources

Electrical Engineering

Efficient Power
Management

Mechanical Engineering

Thermodynamic
Challenges

The central component of the Data Center Engineering program is a certificate that involves 8 classes in Computer Science, Electrical Engineering, Mechanical Engineering, and Management (two in each area). These classes are organized as follows:

General requirements:

- OIS 5670 – Managing Service Operations
- CS 5030 – Current Data Center Operational Practices

Two classes in Mechanical Engineering (Thermal Systems and Design)

- ME EN 3650 Heat Transfer for non-majors

One class chosen among the following three:

- ME EN 5800 Sustainable Energy Engineering
- ME EN 5810 Thermal System Design
- ME EN 5820 Thermal Environmental Engineering

Two classes in Computer Science:

- CS 3810 - Computer Organization
- CS 4400 - Computer Systems

Two classes in Electrical and Computer Engineering:

- ECE 2210 Electrical and Computer Engineering for Non-majors
- ECE 3600 Introduction to Electric Power Engineering

