Do the terms “industry-leading” and “cutting edge” excite you, but does the thought of technology leave you hesitant to join the crowd? Then the Smart Building Operations Training Program is just the course for you! Even if you aren’t tech-savvy, this course will give you the tools, terminology, and reassurance you need to effectively communicate with your peers while moving ahead in a highly technical workforce.

The Smart Building Operations Training Program was designed to teach you the ins and outs of how to use the data from the building systems in your facilities to save you and your employee’s valuable time and money by using technology to your advantage. This leading edge technology and its concepts will guide you through the process of finding ways to make your facilities more energy efficient and to help you educate your tenants in the effort to reduce energy across your portfolio.

In today’s world of mobile technology and cloud computing, we can have all kinds of data at our fingertips any time of the day or night. We are in the perfect position to take this world to the next level by opening doors to Smart Building Operations. This new technology will allow us to analyze data faster and make more informed decisions when it comes to efficient facilities operations. Dashboards will be introduced to share important information and metrics with your tenants so that they too may participate in your organization’s goal to reduce energy consumption and increase efficiency.

Come join us on this exciting adventure as we take the world of facilities to a new standard of operations that will benefit not only us, but future generations!
### Day 1
**Introduction to Smart Buildings Operations Training**
- Instructor Introductions
- Student Introductions
- Housekeeping Items
- Business Goals and Drivers
- Managing the Portfolio

**The Case for Smart Buildings**
- GSA Smart Buildings History
- GSA Policy
- Levels of Optimization and Integration
- Buildings, Technology, and People

**Building Control Systems**
- Building Automation System
  - What is a BAS really?
  - Graphics
  - Framework and Protocols
  - Security
- Advanced Metering
- Lighting Control Systems
- Analytics

### Day 2
**Information Technology**
- IT Basics
  - System Architecture and Hardware
  - IP Addresses, Mac IDs, Gateways, Subnets and Domains
- Data and Software Programs
  - Common Software
  - Types of Databases

**Building Management Systems**
- Computer Maintenance Management System
- Building Information Modeling
- Geographic Information System

### Day 3
**GSAlink**
- Smart Building Technology
- Dashboards

**Managing Projects**
- The Project Team
- Naming Conventions
- Protocols
- Security
- Stakeholders

**Optimizing Building and Operational Performance**
- Energy Reduction
- Re-Tuning
- Commissioning

**Case Study**
- Practical Business Situations and Solutions

---

**Looking for more information about this course?**

To contact a PSFEI instructor:

Carl Thomas 'Tom' Dowling
Marion Place, Suite 414
135 East Nittany Avenue
State College, PA 16801
Telephone: (814) 865-9976
Fax: (814) 863-7835
Email: ctd2@psu.edu

GSA employees interested in attending a class in their region should contact their regional training officer or:

Juan Jose 'JJ' Tijero
Telephone: (202) 208-1520
Email: juanjose.tijero@gsa.gov

To contact PSFEI:

Penn State Facilities Engineering Institute
Marion Place, Suite 414
135 East Nittany Avenue
State College, PA 16801
Telephone: (814) 865-7615
Fax: (814) 863-7835