Facilithon Students
FL, WI, CO & VA

I Want to
- Volunteer
- Visit a Facilithon
- Share a Skill
- Mentor a Student Winner
- Donate
- Fund Scholarships
- Share Our Firm's Brand
- Sponsor a Competition
- Hire Facilithon Students

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A Charitable Non-Profit Corporation
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2019
4 States
8 Chapters
60 Volunteers
113 Participants
15 Scholarships
Thousands know FM
THE FACILITHON

The Facilithon is a competition designed to introduce high school and technical school students with their advisors to careers in Facility Management. The Facilithon competition tests a student’s ability to thrive in a facility management environment through a 50-question common-sense quiz, a 10-minute FM role play and the FM Challenge, an emergency scenario that the student has to react to immediately. Students that do well in the Facilithon represent excellent future facility management professionals.

THE FM PIPELINE TEAM

The FM Pipeline Team is a group of professionals who created and manage this competition in order to fill the FM Pipeline, the proven need to replace the high percentage of facility managers who will retire in the next ten years. The Facilithon program serves to populate and fill the Facility Management Skills Gap by providing enlightened and energized students that understand what facility management is and how to succeed in it.

SkillsUSA

The Facilithon is a SkillsUSA competition, the nation’s fastest-growing career technical student organization. With over 435,000 members in high school and colleges in 2019, SkillsUSA creates students with skill and career vision through sharpening of personal, workplace and technical skills grounded in academics. SkillsUSA students have not only a superior graduation rate, they’re coached to be job-ready the day they leave school. Facilithon graduates may move directly into entry-level positions or attend established facility management degree programs.

IFMA CHAPTERS

When your Chapter joins the Facilithon, FM Pipeline Team “Chapter Buddies” coach & connect you with your state’s SkillsUSA leaders. They also provide appropriate standardized materials to ensure your success. Former chapter leaders, fellows and experienced members form the core of this seasoned team. Your chapter supports the event with short-term volunteers, scholarships and event funds, while engaging directly with your next generation. Your chapter and the profession grow—via new hires and chapter members—as most SkillsUSA graduates stay closer to home.

BUSINESS

As an employer, you gain access to our students through economic and volunteer contributions to the Facilithon program. Interacting with these stellar students creates a relationship toward job-shadowing, summer internships or part-time career-oriented jobs, and eventually the first pick of the enthusiastic and skilled graduates. Forward-thinking companies share their brand message early, where Facilithon students recognize your brand long before they’re positioned to buy.

COLLEGES

The Facilithon is a springboard to populate FM certificate and degree programs. Facilithon is a proven method to deliver undergraduate students to FM careers through design rather than default.

SUPPORTERS

The Facilithon program welcomes volunteers and financial supporters. It is a 501(c)(3) charitable organization, so your contributions are tax-deductible.
International Facility Management Association
Certified Facility Manager® (CFM®)
COMPETENCY GUIDE
Competencies

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Occupancy and Human Factors

Facility managers are expected to take steps to protect the environment and the people who use the facility while supporting organizational effectiveness and minimizing risks and liabilities. Astute facility managers will assess the overall effects of facilities at the earliest possible stage in all facility operations, maintenance, planning, design, construction and management processes to create a positive impact for all stakeholders.

Sub competencies in Occupancy and Human Factors include: workplace environment, occupant services, occupant health, safety and security.

Definition(s) or context:
- **Occupancy**: the diverse uses of the sites included in the built or natural environment for habitation, containment, shelter and other beneficial uses by people, flora and fauna.
- **Workplace environment**: The physical environment in which work is performed that the facility manager can influence.
- **Occupant services**: All services provided by facility management that building occupants or visitors might need; they are the critical activities through which the facility manager directly affects the users of the building.
- **Occupant health, safety and security**: freedom from danger, doubt or fear.

Operations and Maintenance

A primary role of facility managers is to manage/oversee the operation of the facility. To do this, facility managers must have a working knowledge of building systems, structure, interiors and exteriors, and grounds so the facility and all of its required systems function efficiently, reliably, safely, securely and in a manner consistent with existing regulations and standards.

Sub competencies included in Operations and Maintenance (O&M): buildings; building systems; infrastructure and grounds; furniture, fixtures and equipment (FF&E); physical safety and security; operations and maintenance processes; work management support systems; renewals and renovations.

Definition(s) or context:
- **Buildings**: Structures with a foundation, roof and walls standing more or less permanently in one place.
- **Building systems**: The complete, physical facility including electrical, HVAC, plumbing transport and other specialized systems that, once installed, tend to be permanent features of the building.
- **Infrastructure**: The structure, systems and envelope that form the core building to which architectural features, interior elements, and furniture, fixtures and equipment (FF&E) are added.

- **Grounds**: Exterior elements not usually classified as facility structures.

- **Furniture, fixtures and equipment (FF&E)**: Movable furniture, fixtures or other equipment that have no or non-permanent connections to the structure of a building or utilities.

- **Physical safety and security**: Systems and operational protocols in place in and around a building to protect the demand organization’s physical human assets.

- **Operations** involve ensuring that the facility's infrastructure and how it is used and managed provides a satisfactory and productive work environment, complies with laws and regulations, meets financial performance goals, reflects efficient utility service and costs, and protects the surrounding community and environment.

- **Maintenance** deals with assuring that all the elements of the infrastructure are serviced so they operate efficiently and are reliable and safe. It includes scheduling and conducting regular, periodic predictive, preventive and corrective maintenance activities.

- **Work management systems**: a process in which work is estimated, planned, coordinated, scheduled, executed, tracked and measured so that work assignments and activities can be communicated to individuals or teams and trades with specific tasks; expectations of time required to complete the job and date/time for doing the job; functions in support of management and tracking of operations and maintenance activities, efficiency and effectiveness.

- **Renewals and renovations**: an alteration to return a building to its previous state or condition; to restore a facility asset to good condition; make new or as if new again; to enhance or change the use of the facility.

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**Sustainability**

Facilities are an integral part of any organization’s efforts to satisfy its social responsibilities and maintain compliance with laws/regulations. Compliance with minimum standards is not just a legal obligation, it is required if organizations are to stay viable. Facility managers are expected to take steps to protect the environment and the people who use their facilities while supporting organizational effectiveness and minimizing risks and liabilities. They must assess the overall effects of facilities on the environment at the earliest possible stage in all facility planning, design, construction and management processes.

**Sub competencies of Sustainability include**: energy management, water management, materials and consumables management, waste management, workplace and site management.
Definition(s) or context:

- **Energy management**: a method for the containment and reduction of the overall cost of energy consumption.
  Reference [ISO 50001:2011]
- **Energy baseline**: Quantitative reference(s) providing a basis for comparison of energy performance.
- **Energy consumption**: Quantity of energy applied.
- **Energy efficiency**: Ratio or other quantitative relationship between an output of performance, service, goods or energy and an input of energy.
- **Water management**: A method for the containment and reduction of the overall use of water.
  [Reference ISO 14046:2016]
- **Water use**: Use of water by human activity.
- **Water footprint**: Metric(s) that quantify the potential environmental impacts related to water.
- **Water footprint impact assessment**: Assessment to promote understanding of the magnitude and significance of the potential environmental impacts related to water on a product, process of organization.
- **Materials and consumable management**: A method for the procurement of facility resources in a sustainable manner.
- **Consumption**: (1) The process of incorporating material into an end item or otherwise using it in the performance of a documented business objective. (2) The measurement of actual use of consumable items against planned use. (ASTM E2135-10)
- **Waste management**: The minimization, collection, reduction and disposal of waste in a sustainable manner through prevention, minimization, reuse, recycling, energy recovery and disposal.
- **Workplace and site management**: Policies and practices designed to preserve, protect, restore buildings, grounds, habitats and the environment.

**Facility Information Management and Technology Management**

The facility organization is responsible for the delivery of services and for preserving and maintaining the building structures, interiors and exteriors that house the technology infrastructure. To that end, the facility manager must be proficient in:

- the planning, implementation and use of technologies that support the day-to-day operations of the facility management function,
- automation of intelligent building systems,
- the collection of facilities data,
- verification of the data,
- synthesis of raw data into contextual and relevant information,
- the management and reporting of information, and
- securing facilities information.
Sub competencies of Facility Information Management and Technology Management include:
technology needs assessment and implementation, data collection and information management,
maintenance and upgrade of technology systems, information protection and cyber-security.

Definition(s) or context:

- **Needs assessment**: A systematic process for determining gaps between current and desired conditions or needs; the discrepancy between the current condition and wanted condition must be calculated to identify the need appropriately. (Wikipedia - modified)
- **Technology implementation** is the methodical course of action to plan, organize and execute the sequence of activities toward the realization of the desired end result.
- **Data collection**: The systematic approach to gathering and evaluating information from a variety of sources to get a complete and accurate picture of an area of interest.
- **Information management**: Application of management techniques to collect information, communicate it within and outside the organization, and process it to enable managers to make quicker and better decisions. ([www.businessdictionary.com/definition/information-management.html](http://www.businessdictionary.com/definition/information-management.html))
- **Maintenance and upgrade of technology**: A systematic and disciplined approach to assessing current technology system's capabilities and whether they continue to ensure information integrity and relevance. [Reference ISO 27000:2016]
- **Information security**: Preservation of confidentiality, integrity and availability of information.
- **Information security continuity**: Processes and procedures for ensuring continued information security operations.
- **Information security event**: Identified occurrence of a system, service or network state indicating a possible breach of information security policy or failure of controls, or a previously unknown situation that may be security relevant.
- **Information security incident**: Single or a series of unwanted or unexpected information security events that have a significant probability of compromising business operations and threatening information security.
- **Information security incident management**: Processes for detecting, recognizing, reporting, assessing, responding to, dealing with and learning from information security incidents.
- **Information system**: Applications, services, information technology assets or other information handling components.
Risk Management

The responsibility for emergency preparedness, facility resilience and business continuity is central to the role of facility managers, who have the primary concern for the health and safety of the built environment and who serve as stewards of the built environment.

**Sub competencies of Risk Management include:** risk management planning; emergency preparedness, response and recovery; facility resilience and business continuity.

**Definition(s) or context:**

- **Risk management planning:** The process or act of identifying potential hazards or threats and selecting methods to either avoid them or mitigate them in order to minimize potential loss, damage or injury to people, buildings, grounds, technology and building systems and so forth.

- **Risk management:** Coordinated activities to direct and control an organization with regard to risk. [reference ISO Guide 73]

- **Risk Assessment:** Overall process of risk identification, risk analysis and risk evaluation.

- **Emergency preparedness, response and recovery:** The process or act of planning for, reacting to and recovering from environmental, biological/chemical and societal disasters that put people, property, technology, production and essential services (water, power, telecom, transportation) at risk.

- **Facility resilience and business continuity:** The ability of an organization to quickly adapt to disruptions while maintaining continuous business operations and safeguarding people, assets and overall brand equity; the process or act of developing plans and procedures to assure the continuation of business operations during and after conditions of duress. The business continuity plans help organizations to be resilient.

- **Business continuity:** Capability of the organization to continue delivery of products or services at acceptable predefined levels following a disruptive incident. [reference ISO 22300]

- **Business continuity plan:** Documented procedures that guide organizations to respond, recover, resume and restore to a pre-defined level of operation following a disruption.

- **Resilience:** Adaptive capacity of an organization in a complex and changing environment.

Communication

The facility organization requires the support of numerous stakeholders and has an obligation to keep those stakeholders informed.

The process includes collecting feedback from stakeholders, identifying the appropriate audience, planning the appropriate communication, selecting the appropriate delivery method and frequency of the communication and evaluating the effectiveness of the communication plan.
Sub competencies of Communication include: planning, delivery, evaluation.

Definition(s) or context:

- **Planning**: The process of creating a communications strategy with the goal to influence the opinions, actions and decisions of the intended audience (stakeholders).
- **Delivery**: The process of selecting the appropriate delivery method and sending messages such that they are received by/available to the intended audience within the appropriate timeframe to be acted upon as applicable.
- **Evaluation**: The process of evaluating the effectiveness of the communication plan.

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**Performance and Quality**

Facility managers must understand and document stakeholder needs and expectations of the facility and the facility’s services. They must be able to measure the performance of the facility organization and service providers to make continual improvements.

Sub competencies of Performance and Quality include: performance management and quality management.

Definition(s) or context:

- **Management** is based on pre-defined stakeholder expectations.
- **Performance**: Measurable results. [reference ISO 9001:2015]
- **Quality management**: Coordinated activities to direct and control an organization with regard to quality.

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**Leadership and Strategy**

Facility managers must be able to align the facility portfolio with the demand organization's missions and available resources and be innovative to move forward with their staff and processes to respond to ever-changing requirements. They must lead the facility organization by providing guidance to staff and service providers, and they must influence the decisions and attitudes of the demand organization’s leaders as well as that of occupants, government officials, suppliers, community leaders and business partners.

Sub competencies in Leadership and Strategy include: strategic planning and alignment with the demand organization; policies, procedures and compliance; individual and team management; leadership; relationship and conflict management; change management; corporate social responsibility; political, social, economic and industry factors affecting facility management.
Definition(s) or context:

- **Strategic planning and alignment with the demand organization:** Using artful means, or creating an advantageous position to channel the energy and activities of others in support of the entire demand organization’s goals.

- **Policies, procedures and compliance** support day-to-day operations and service delivery, guide the performance of job tasks of staff and contractors, and inform services users what services are available and how to access them. Compliance ensures that the intent of the policies and procedures are being satisfied.

- **Individual and team management:** The process of planning, organizing, leading and controlling individuals and teams to successfully meet their obligations.

- **Leadership:** Guiding and directing others’ actions and decisions using one’s position, power and personal influence to channel the energy and activities of others in support of the demand organization’s goals.

- **Relationship management and conflict management:** Developing and maintaining communications with relevant stakeholders and developing and maintaining an understanding of their needs, objectives and constraints so that long-term, mutually beneficial solutions and conflict resolution practices can be created for all parties.

- **Change management:** Any approach to transitioning individuals, teams and organizations using methods intended to redirect the use of resources, business process, budget allocations or other modes of operation that significantly reshape a company or organization. (Wikipedia)

- **Corporate social responsibility:** Responsibility of an organization for the impacts of its decisions and activities on society and the environment through transparent and ethical behavior such that the organization: [reference ISO 26000:2010]
  - contributes to sustainable development, including health and the welfare of society;
  - considers the expectations of stakeholders;
  - is in compliance with applicable law and consistent with international norms of behavior; and
  - is integrated throughout the organization and practices in its relationships.

- **Political, social, economic and industry factors affecting facility management:** Circumstances or situations outside the business that a business cannot control; these factors include social, political, technological, environmental, legal and economic issues.

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**Finance and Business**

Facility managers manage/oversee aspects of the entire organization that represent both significant financial investment in technology, buildings, structures, interiors, exteriors and grounds and considerable operational expense.

**Sub competencies in Finance and Business include:** operational and capital budgeting, evidence-based decision-making process, procurement, contracting, financial analysis, reporting.
Definition(s) or context:

- **Finance**: Control of finances relating to the FM services, including the development, the interpretation, the use and the management of information related to the operation of the facility (i.e., operating budgets, spreadsheets, financial ratios, income and expenditure reports, variance reports and capital budgets).

- **Business**: Ensuring the long-term viability of the FM operation through the effective management and analysis of information, finances and other resources, including administration, goods and services, procurement and contract management, services provider management, staff planning, lease management, revenue generation, cost control, communication with stakeholders, long-term business planning, policy and procedure development, and performance management.

- **Operational and capital budgeting**: A process that results in formal, numerical expression of how an organization expects to operate for a defined period identifying resources and sources of funding.

- **Evidence-based decision-making process**: A process for making decisions about a program, practice or policy that is grounded in the best available research evidence and informed by experimental evidence from the field and relevant contextual evidence.

- **Procurement**: A systematic process by which an organization reaches formal agreements for the purchase of goods and/or services; this includes developing specifications, ensuring measurability, collaboration with supply chain, developing options for supplier selection, negotiation, establishing pricing mechanism and engaging key stakeholders in the procurement process.

- **Contracting**: Entering into a written or verbal agreement that creates a legally enforceable obligation between two or more parties and defines the details of that obligation.

- **Financial analysis and reporting**: The process of assessing organizational performance in the context of stated goals and strategies to provide insights into financial health in order to highlight problems and opportunities.

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**Real Estate**

Facility managers are expected to manage/oversee real estate as a physical asset designed to support the people who use them. Facility managers need to understand real estate principles and practices so they can contribute information and expertise as they relate to real estate and their relevance to business decisions and strategy.

**Sub competencies for Real Estate include**: real estate strategies; real estate assessment, acquisition and disposal; real estate asset management; space management; major projects and new construction.

**Definition(s) or context:**
- **Real estate strategies:** A long-term view of an organization’s real estate portfolio taken to meet the strategic objectives of the demand organization and optimize the value of its real estate holdings.

- **Real estate assessment, acquisition and disposal:** A systematic approach taken to manage the life cycle of the demand organization’s real estate portfolio.

- **Real estate asset management:** A systematic process of maintaining, upgrading and operating real estate assets. [Reference ISO 55000]

- **Asset:** Item, thing or entity that has potential or actual value to an organization.

- **Asset life:** Period from asset creation to asset end-of-life.

- **Asset management:** Coordinated activity of an organization to realize value from assets.

- **Space management:** The systematic approach to managing space to make it as productive and efficient as possible and to fully support the activities of the demand organization.

- **Major projects and new construction:** An individual project involving a magnitude in scope and cost whereby funding is normally established on an individual basis.

### Project Management

Project management is a core skill in facility management and is particularly important because of the wide range of projects assigned to the facility organization. Projects can vary in scope, complexity, duration and financial risk.

**Sub competencies of Project Management include:** planning and design, execution and delivery, and evaluation.

**Definition(s) or context:**

- **Planning:** The process of organizing the tasks, resources and people required to accomplish a unit of work.

- **Design:** Process of documenting the tasks, resources and people required to accomplish a unit of work.

- **Execution and delivery:** The act of carrying out a project, controlling it and producing the deliverables to meet the project’s scope and objectives as stated in the project management plan.

- **Evaluation:** The process of closing out a project by closing contract, recording performance metrics, comparing and documenting outcomes versus goals, and assessing stakeholder satisfaction.