Facilities of the Future
Guiding Principles
Approved by the Instruction Commission
May 2010

What follows are 9 guiding principles, several best practices, lessons learned, and a review of the literature related to campus facilities of the future. The principles, best practices and lessons learned were compiled by the WACTC Instruction Commission task force on Facilities of the Future based upon conversations, system feedback, and a review of the literature.

The Instruction Commission believes a paradigm shift is necessary to implement the guiding principles written in this document. Professional development and training of administration, faculty and staff will be essential to help with the new paradigm.

Guiding Principles for Facilities of the Future

1. Capital funding models should recognize and reward multiple use of space on campuses. Learning happens everywhere and anywhere, including hallways, classrooms, cafeterias, formal and informal group spaces, social spaces and quiet meditative space. Funding models and the definition of “utilization” should be reviewed and priority established for spaces that can transform based upon needs. Types of learning spaces needed on campuses include:
   a. Informal and formal collaborative learning spaces shaped around human interaction that is face-to-face or technology driven (e.g. instant texting, blogging, etc.).
   c. Transition spaces that comfortably allow for hallway-type exchanges between and among faculty and students.
   d. Blended spaces where students can mix eating and relaxing with study and discussion.
   e. Learning spaces that reflect off-campus settings such as cafes and lounges – comfortable chairs and tables.
   f. Studios and laboratories that simulate workplace and research environments.
   g. Quiet and comfortable study spaces.
   h. Indoor and outdoor meditative and sanctuary spaces for reflection and quiet learning.
   i. Spaces based upon Universal Design principles. *Universal Design is an approach to the design of all products and environments to be as usable as possible by as many people as possible regardless of age, ability or situation.*

2. Learning and office spaces should promote collaboration, peer-to-peer exchanges, multi-disciplinary learning communities, and real-world experiences.
   a. Learning that is relevant to the lives of students.
   b. Use of Universal Design in learning. (See “i” above for definition)
   c. Spaces that promote interaction between and among students, faculty, content, and expected professional application.
   d. Project-based learning.
   e. Situational learning where learning mirrors the real world (workshops, kitchens, greenhouses, gardens, cooperative education etc.).
f. Studio-based learning environments where work-in-progress can be visible, shared, and assessed.
g. Laboratory settings.
h. Networking.
i. Virtual learning.
j. Appropriate technologies that do not overwhelm spaces.
k. Hybrid instruction.
l. On-line learning.
m. Technology-enhanced learning.

3. **New, remodeled, and renovated structures should be analyzed and evaluated in the context of the entire campus master plan.** Master plans should balance (1) the need for flexible and changeable spaces to meet current needs that allow for future reinterpretation and reassignment of programs and functions with (2) appropriate dedicated space for specialized programs.
   a. Robust wireless connections and outlets with connectivity to the outside world (ITV, Elluminate, etc.).
   b. Spaces that are esthetically pleasing – including colors that promote learning.
   c. Spaces that allow for 24X7 access while providing high standards of security.
   d. Spaces that allow for quiet, meditative and reflective learning.
   e. Spaces that hold program specific equipment and meet program specific needs.
   f. Easy access to technological infrastructure needs.
   g. Demountable and moveable walls that will accommodate various acoustical needs.
   h. Flexible tables (small, large round etc.).
   i. Comfortable and moveable chairs.

4. **All students should be able to access facilities and fully participate in learning**, formally and informally, in face-to-face formats or with the use of technologies. Special attention should be paid to access and ease of mobility for students with disabilities and special needs.

5. **Campus facilities and resources should be leveraged and used to build partnerships and collaboration** with other community and technical colleges, other education sectors (k-12 and universities), community organizations, and private industry.

6. **Faculty and administrators should have the necessary support, skills, abilities, and tools** to maximize the intended use of facilities and instructional resources to respond to needs of students, employers, and communities.

7. **Facilities should be designed with the involvement of end-users** including students, faculty, staff, and community members.

8. **Facilities should be sustainable** and meet rigorous sustainability standards (currently LEED Certified Standards) and contribute to sustainable practices related to curriculum and campus culture.

9. **Facilities should be built for emergency preparedness and disaster protection** with consideration for voice command needs, electronic door locks, emergency evacuation etc.
Best Practices

• Facility planning and implementation decisions should be based upon the mission(s) of the colleges.

• It is helpful to assign a point person from instruction to work with facilities and other constituents to ease communication and feedback.

• It is important for all involved to understand capital funding: allowable use and restrictions related to funds.
• It is helpful for all involved to strategically think about placement of services, labs, classrooms, and informal learning spaces as they relate to comprehensive student centered learning.

• Floor plan directories and directional signs need to be clear, simple, and in strategic locations.

• It is helpful to “try out” room layouts, furniture placement, movement patterns, acoustic options etc. with actual students prior to completing building projects.

Lessons Learned from Past Capital Projects

• It is important to involve end-users in the entire capital project process of design through building construction. While the process may be labor intensive the final results are worthwhile.

• Colleges need to anticipate the future use of buildings and create flexibility in design to allow for unanticipated needs that change from the beginning of the processes to completion.
  o The capital construction process takes many years. Original expectations of how spaces will be used change based upon technology, student needs, and faculty teaching styles. Colleges should design and build with a mindset that the building will be used by different units, services, departments, and programs over time—often 30-40 years.
  o Colleges need to create back-up plans for funding building operations and functions. Funding structures can change during a construction project and leave colleges without adequate funds to sustain building operations and functions.
Changes in Teaching and Learning
It is indisputable—learning has changed. The internet and mobile devices provide access to information anywhere at any time. E-Learning and hybrid courses are growing exponentially in Washington State, allowing students the flexibility to structure course schedules to meet life circumstances. And students are seeking more real-life collaborative learning experiences that can immediately apply to their world. Additionally, we serve an increasing number of students of color, immigrants and young working adults.

A review of the literature shows major shifts in teaching and learning. (Brown, 2005; Dugdale, 2009; Jamieson 2005; Locker, 2007; Selingo and Carlson, 2006; Seppanen and Prince, 2009; Theil, 2008)

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<thead>
<tr>
<th>Traditional Learning Principles</th>
<th>21st Century Learning Principles</th>
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<tr>
<td>Learning happens in a classroom and the schedule is determined by the institution.</td>
<td>Learning happens everywhere and the schedule is determined by the student- anytime and anywhere.</td>
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<tr>
<td>Curriculum is developed for the group.</td>
<td>Curriculum is more personalized for each student.</td>
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<td>Individual subjects are taught in isolation.</td>
<td>Learning is multi-disciplinary and students learn to work in cross-disciplinary teams that encompass multiple ways of knowing.</td>
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<td>Learning is fact-based and passive.</td>
<td>Learning is active and involves complex, real-life problems, mock examinations, workplace simulations, computer-generated simulations, and gaming.</td>
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<td>Information is dispensed from the expert teacher to novice students.</td>
<td>Students participate as “creators” of information and are actively engaged in the learning process. Faculty become guides and facilitators in the learning process.</td>
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<td>An individual is assessed on his or her learning by the teacher.</td>
<td>Learning is assessed through collaborative, team-based projects that are made public. Peers and teachers provide validation and feedback for improvement.</td>
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<td>Technology has limited use in creating learning.</td>
<td>Technology and multi-media is widely used to create learning.</td>
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<td>Students learn “about” a subject area (research, mathematics etc.).</td>
<td>Students learn “to be” a practitioner of the subject area (a researcher, a mathematician, etc.).</td>
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<td>Learning is focused on developing specific technical skills</td>
<td>Learning is focused on transferable skills such as critical thinking, problem solving, technology and information literacy, cultural competency, global perspective, workplace ethics, and systems thinking.</td>
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<td>Students acquire certificates and degrees to advance in a single career pathway.</td>
<td>People engage in lifelong learning that includes both formal and informal education.</td>
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<td>Faculty development focused on discipline and advancing technical expertise.</td>
<td>Faculty development focuses on ways to support multiple types of learning, use meaningful technologies, and integrate disciplines.</td>
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Changing in Future Campus Facilities
To accommodate major changes in teaching and learning, literature suggests that campus facilities need to be more adaptable and flexible---providing appropriate use for today’s needs with future possibilities for reinterpretation and reassignment of space (Locker, 2007; Brown, 2005; Jamieson, 2005; Selingo and Carlson, 2006; Theil, 2006; Dugdale, 2009). Facilities will need to include spaces that:

- Create and promote formal and informal learning communities – interaction, collaboration and a sense of belonging.
• Replicate real world professional settings.
• Are multi-purpose and are used by multiple disciplines at different times during a week, month, quarter, and academic year.
• Provide solitary and social reflection, meditation, movement, and quiet.
• Provide for the use of technologies such as multi-screen projection capability, virtual learning, podcasting, etc.
• Promote sustainable practices.

Bibliography


