The groupings below represent clusters of ideas that have emerged from faculty and student discussions, rather than definitive or exclusive categories.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Common Space Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal, Structured</td>
<td>Pedagogy and learning includes flipped classes, hybrid and multi-mode instruction, and other forms of teaching and learning, including specific references to course content, format or delivery - except for problem-based learning which had its own category (below).</td>
<td>Emphasis on flexible, adaptable, configurable teaching space to support active learning, different pedagogies within a single class session. Universal concern with the condition and quality of classrooms and labs. Some larger lecture capacity for knowledge transfer when that is the most appropriate delivery mode.</td>
</tr>
<tr>
<td>Formal, Structured</td>
<td>Laboratory, problem-based, project-based learning includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.</td>
<td>Emphasis on safety, security and technical support in project/lab settings.</td>
</tr>
<tr>
<td>Both</td>
<td>Collaboration: esp., across disciplines includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.</td>
<td>Universal desire for flexible, adaptable space - reserved on occasional basis rather than routinely scheduled.</td>
</tr>
<tr>
<td>Both</td>
<td>Technology and equipment includes any reference to technology and equipment, ranging from hardware to software (apps) in addition to support for problem-based learning or pedagogy.</td>
<td>Moving forward, most equipment has an information technology component. Universal desire for ubiquitous connectivity. Universal concern about costs and obsolescence.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Experiential learning outside classroom includes organized internships, co-op, field work, community-based, service-learning, client-based projects, and study abroad.</td>
<td>Universal concern with risk management.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Co-curricular learning includes learning related to the student’s major as well as other kinds of activities, including student government, clubs and organizations, athletics, recreational sports, participation in music and theatrical performances, other instructionally related activities (IRA), enterprise projects, and student employment on campus.</td>
<td>Universal concern with risk management.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Teacher-Scholar Model involves interaction between faculty and professions/industries as well as with students.</td>
<td>Universal concern about lack of appropriate space for scholarship, depending upon discipline or field; quality of faculty offices, particularly for interaction with students</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Other items include ideas not easily classified with the above categories. This category included references to informal learning outside the classroom or lab not covered by organized co-curricular learning.</td>
<td>Common references to quality (and quantity) of conference rooms and storage.</td>
</tr>
<tr>
<td>Pedagogy and learning</td>
<td>Laboratory, problem-based, project-based learning</td>
<td>Collaboration; esp., across disciplines</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>includes flipped classes, hybrid and multi-mode instruction, and other forms of teaching and learning, including specific references to course content, format or delivery - except for problem-based learning which had its own category (below).</td>
<td>includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.</td>
<td>includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.</td>
</tr>
</tbody>
</table>

| Studio culture with home base for students and faculty; living laboratory to test and export design solutions; CAED as space planners, designers and builders. | Long-standing studio tradition with both analog and digital components | Shop support - prototyping and full-scale | Digital shop equipment, testing labs, visualization | Organized travel study courses; community (client)-based projects | Discipline-based clubs, some with competitions (e.g., CM) | Student-scholar along with teacher-scholar | Ancillary interior and exterior flexible space for projects, demonstrations, presentations - exhibits, displays, galleries; "between class" spaces |
The groupings below represent clusters of ideas that have emerged from faculty and student discussions, rather than definitive or exclusive categories.

<table>
<thead>
<tr>
<th>Formal, Structured</th>
<th>Pedagogy and learning includes flipped classes, hybrid and multi-mode instruction, and other forms of teaching and learning, including specific references to course content, format or delivery - except for problem-based learning which had its own category (below).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal, Structured</td>
<td>Laboratory, problem-based, project-based learning includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.</td>
</tr>
<tr>
<td>Both</td>
<td>Collaboration: esp., across disciplines includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.</td>
</tr>
<tr>
<td>Both</td>
<td>Technology and equipment includes any reference to technology and equipment, ranging from hardware to software (apps) in addition to support for problem-based learning or pedagogy.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Experiential learning outside classroom includes organized internships, co-op, field work, community-based, service-learning, client-based projects, and study abroad.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Co-curricular learning includes learning related to the student’s major as well as other kinds of activities, including student government, clubs and organizations, athletics, recreational sports, participation in music and theatrical performances, other instructionally related activities (IRA), enterprise projects, and student employment on campus.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Teacher-Scholar Model involves interaction between faculty and professions/industries as well as with students.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Other items include ideas not easily classified with the above categories. This category included references to informal learning outside the classroom or lab not covered by organized co-curricular learning.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>[The 21st Century] Laboratory Farm - close proximity to most agricultural activities for teaching and learning; vehicular and virtual access as well.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Integration of hybrid forms of instruction, with carefully designed online components</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Hands-on, experiential LBD, even more important for those without prior agriculture background</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Technology-enabled collaborative classrooms</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Discipline and industry-specific - e.g., for monitoring soils, water, crops, feed, animal behavior; real-time virtual access to national and international data and experimentation</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Field trips; Industry (client)-based research connects with Teacher-Scholar</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Enterprise projects; discipline-based clubs</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Facility quality and currency, particularly for research; LBD stresses mentor role for faculty</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Student residences at agricultural facilities</td>
</tr>
</tbody>
</table>
The groupings below represent clusters of ideas that have emerged from faculty and student discussions, rather than definitive or exclusive categories.

<table>
<thead>
<tr>
<th>Formal, Structured</th>
<th>Pedagogy and learning includes flipped classes, hybrid and multi-mode instruction, and other forms of teaching and learning, including specific references to course content, format or delivery - except for problem-based learning which had its own category (below).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal, Structured</td>
<td>Laboratory, problem-based, project-based learning includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.</td>
</tr>
<tr>
<td>Both</td>
<td>Collaboration: esp., across disciplines includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.</td>
</tr>
<tr>
<td>Both</td>
<td>Technology and equipment includes any reference to technology and equipment, ranging from hardware to software (apps) in addition to support for problem-based learning or pedagogy.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Experiential learning outside classroom includes organized internships, co-op, field work, community-based, service-learning, client-based projects, and study abroad.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Co-curricular learning includes learning related to the student’s major as well as other kinds of activities, including student government, clubs and organizations, athletics, recreational sports, participation in music and theatrical performances, other instructionally related activities (IRA), enterprise projects, and student employment on campus.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Teacher-Scholar Model involves interaction between faculty and professions/industries as well as with students.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Other items include ideas not easily classified with the above categories. This category included references to informal learning outside the classroom or lab not covered by organized co-curricular learning.</td>
</tr>
</tbody>
</table>

Reconfigurable team project space - often large-scale, both 'messy' and 'clean' (depending on the project); CENG as inventors.

Vertically-integrated projects (involving all levels from entry to graduate students), with dedicated space; seamless lecture/lab settings; senior project space

Team-based projects

Engineers as inventors/creators as well as users of technology; external partnerships for access to expensive equipment; need for sophisticated technology

Co-op (curriculum challenges), field trips, international exposure

Discipline-based or activity-based clubs, often with competitions (e.g., solar car)

Fits with vertical integration of projects; need for dedicated research space

Spaces for students to hang out, with full wireless connectivity
The groupings below represent clusters of ideas that have emerged from faculty and student discussions, rather than definitive or exclusive categories.

<table>
<thead>
<tr>
<th>Formal, Structured Pedagogy and learning</th>
<th>Laboratory, problem-based, project-based learning includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal, Structured Collaboration; esp., across disciplines includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.</td>
<td>Classroom technology for active learning that builds on a tradition of analyzing primary source materials and case studies; classrooms that can accommodate pedagogy that emphasizes teaching and learning essential skills and cultural competencies.</td>
</tr>
<tr>
<td>Both Technology and equipment includes any reference to technology and equipment, ranging from hardware to software (apps) in addition to support for problem-based learning or pedagogy.</td>
<td>Interdisciplinary minors (e.g., STS); interdisciplinary teaching and project space for student and student-faculty research and creative activity.</td>
</tr>
<tr>
<td>Informal, Structured Experiential learning outside classroom includes organized internships, co-op, field work, community-based, service-learning, client-based projects, and study abroad.</td>
<td>Interactive technology for real-time, virtual access to national and international experts and partners; access to technology for direct instruction.</td>
</tr>
<tr>
<td>Informal, Structured Co-curricular learning includes learning related to the student’s major as well as other kinds of activities, including student government, clubs and organizations, athletics, recreational sports, participation in music and theatrical performances, other instructionally related activities (IRA), enterprise projects, and student employment on campus.</td>
<td>Community-based projects; international study; Cal Poly campus community as a laboratory for learning.</td>
</tr>
<tr>
<td>Informal, Less Structured Teacher-Scholar Model involves interaction between faculty and professions/industries as well as with students.</td>
<td>Participants in IRA-funded activities managed by CLA typically involve many students from majors in other colleges; some of these activities are housed in obsolete space that needs to be addressed (e.g., music and theatre).</td>
</tr>
<tr>
<td>Informal, Less Structured Other items include ideas not easily classified with the above categories. This category included references to informal learning outside the classroom or lab not covered by organized co-curricular learning.</td>
<td>Space needs for scholarly work vary with the discipline due to the wide range of activities in CLA.</td>
</tr>
</tbody>
</table>

The need for spatial identity given that "physical spaces embody a community's mental image of how and where learning occurs** as a companion to the Baker Center for Science and Math.

While many CLA fields lend themselves to projects, LBD in CLA takes on additional forms through performances, exhibits, media production, debate competitions, research papers, etc. All fields highlight sensitivity to the social/ cultural context of LBD’s clients/communities.

Interactive technology for real-time, virtual access to national and international experts and partners; access to technology for direct instruction.

Community-based projects; international study; Cal Poly campus community as a laboratory for learning.

Participants in IRA-funded activities managed by CLA typically involve many students from majors in other colleges; some of these activities are housed in obsolete space that needs to be addressed (e.g., music and theatre).

Space needs for scholarly work vary with the discipline due to the wide range of activities in CLA.

Wide range of spaces to serve CLA given the range of disciplines in the college.

The groupings below represent clusters of ideas that have emerged from faculty and student discussions, rather than definitive or exclusive categories.

<table>
<thead>
<tr>
<th>Formal, Structured</th>
<th>Pedagogy and learning includes flipped classes, hybrid and multi-mode instruction, and other forms of teaching and learning, including specific references to course content, format or delivery - except for problem-based learning which had its own category (below).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal, Structured</td>
<td>Laboratory, problem-based, project-based learning includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.</td>
</tr>
<tr>
<td>Both</td>
<td>Collaboration: esp., across disciplines includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.</td>
</tr>
<tr>
<td>Both</td>
<td>Technology and equipment includes any reference to technology and equipment, ranging from hardware to software (apps) in addition to support for problem-based learning or pedagogy.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Experiential learning outside classroom includes organized internships, co-op, field work, community-based, service-learning, client-based projects, and study abroad.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Co-curricular learning includes learning related to the student’s major as well as other kinds of activities, including student government, clubs and organizations, athletics, recreational sports, participation in music and theatrical performances, other instructionally related activities (IRA), enterprise projects, and student employment on campus.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Teacher-Scholar Model involves interaction between faculty and professions/industries as well as with students.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Other items include ideas not easily classified with the above categories. This category included references to informal learning outside the classroom or lab not covered by organized co-curricular learning.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Distinguishing Characteristics</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Active learning with close student/faculty collaboration in labs and field research.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Flexibility in space so that faculty can select to use the pedagogy appropriate to the moment; more flexible scheduling; cohort-based (School of Education)</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Studio classrooms that integrate lecture and lab as needed; lab school for School of Education</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Student collaboration space proximate to faculty offices</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Equipment and technology for discipline-specific labs; Distance communications (for access to outside expertise, guest lecturers, etc.)</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Field work</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Discipline-based clubs and organizations</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Long-term research crossing generations of students [and faculty]; dedicated research space</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Wide range of spaces to serve CSM given the range of disciplines in the college; outdoor green space for reflection, etc.; accessible, nutritious food options integrated with learning spaces</td>
</tr>
<tr>
<td>Formally, Structured Pedagogy and learning includes flipped classes, hybrid and multi-mode instruction, and other forms of teaching and learning, including specific references to course content, format or delivery - except for problem-based learning which had its own category (below).</td>
<td>The groupings below represent clusters of ideas that have emerged from faculty and student discussions, rather than definitive or exclusive categories.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Formally, Structured Laboratory, problem-based, project-based learning includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.</td>
<td>Learning infrastructure that transcends boundaries between physical and virtual learning spaces.</td>
</tr>
<tr>
<td>Both Collaboration; esp., across disciplines includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.</td>
<td>Flexible, configurable space with wireless connectivity; learning environment with integrated technologies that have low complexity, require minimal training, do not distract from the learning activities, and accommodate different physical capacities of users.</td>
</tr>
<tr>
<td>Both Technology and equipment includes any reference to technology and equipment, ranging from hardware to software (apps) in addition to support for problem-based learning or pedagogy.</td>
<td>Vision of OCOB as the undisputed leader in experiential business education.</td>
</tr>
<tr>
<td>Informally, Structured Experiential learning outside classroom includes organized internships, co-op, field work, community-based, service-learning, client-based projects, and study abroad.</td>
<td>Peer-oriented teaching and learning.</td>
</tr>
<tr>
<td>Informally, Structurally Co-curricular learning includes learning related to the student’s major as well as other kinds of activities, including student government, clubs and organizations, athletics, recreational sports, participation in music and theatrical performances, other instructionally related activities (IRA), enterprise projects, and student employment on campus.</td>
<td>Computing capacity for data analytics; lab space and equipment adaptable to changing needs of specific programs (e.g., Industrial Technology and Packaging).</td>
</tr>
<tr>
<td>Informally, Less Structured Teacher-Scholar Model involves interaction between faculty and professions/industries as well as with students.</td>
<td>Interaction with industry practitioners.</td>
</tr>
<tr>
<td>Informally, Less Structured Other items include ideas not easily classified with the above categories. This category included references to informal learning outside the classroom or lab not covered by organized co-curricular learning.</td>
<td>Examples include work with the Center for Innovation and Entrepreneurship - the Hatchery, Hot House, etc.</td>
</tr>
<tr>
<td>Informally, Less Structured Learning on campus in outdoor courtyard, conference rooms, lounges, indoor interactive spaces - as well as off-campus in San Luis Obispo and elsewhere.</td>
<td>Interaction between faculty and industry globally.</td>
</tr>
</tbody>
</table>
The groupings below represent clusters of ideas that have emerged from faculty and student discussions, rather than definitive or exclusive categories.

### Formal, Structured

- **Pedagogy and learning** includes flipped classes, hybrid and multi-mode instruction, and other forms of teaching and learning, including specific references to course content, format or delivery - except for problem-based learning which had its own category (below).

- **Laboratory, problem-based, project-based learning** includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.

### Both

- **Collaboration; esp., across disciplines** includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.

- **Technology and equipment** includes any reference to technology and equipment, ranging from hardware to software (apps) in addition to support for problem-based learning or pedagogy.

### Informal, Structured

- **Experiential learning outside classroom** includes organized internships, co-op, field work, community-based, service-learning, client-based projects, and study abroad.

- **Co-curricular learning** includes learning related to the student’s major as well as other kinds of activities, including student government, clubs and organizations, athletics, recreational sports, participation in music and theatrical performances, other instructionally related activities (IRA), enterprise projects, and student employment on campus.

### Informal, Less Structured

- **Teacher-Scholar Model** involves interaction between faculty and professions/industries as well as with students.

- **Other items** include ideas not easily classified with the above categories. This category included references to informal learning outside the classroom or lab not covered by organized co-curricular learning.

### Distinguishing Characteristics

- **Spatial identity for graduate and international students on a campus that is primarily undergraduate and domestic.**

- **Seminar format**

- **Primary environment for post-baccalaureate education**

- **Designated space for graduate students near their academic departments and/or research facilities**

- **Distance technology with both audio and visual capacity like Skype to keep students connected while abroad**

- **Study abroad programs**

- **International student residential community**

- **Office and research space accommodation for visiting scholars**

- **More specialized space and support requirements to provide identity for and serve international students and faculty, and post-baccalaureate/graduate students**
The groupings below represent clusters of ideas that have emerged from faculty and student discussions, rather than definitive or exclusive categories.

<table>
<thead>
<tr>
<th>Formal, Structured</th>
<th>Pedagogy and learning includes flipped classes, hybrid and multi-mode instruction, and other forms of teaching and learning, including specific references to course content, format or delivery - except for problem-based learning which had its own category (below).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal, Structured</td>
<td>Laboratory, problem-based, project-based learning includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.</td>
</tr>
<tr>
<td>Both</td>
<td>Collaboration: esp., across disciplines includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.</td>
</tr>
<tr>
<td>Both</td>
<td>Technology and equipment includes any reference to technology and equipment, ranging from hardware to software (apps) in addition to support for problem-based learning or pedagogy.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Experiential learning outside classroom includes organized internships, co-op, field work, community-based, service-learning, client-based projects, and study abroad.</td>
</tr>
<tr>
<td>Informal, Structured</td>
<td>Co-curricular learning includes learning related to the student’s major as well as other kinds of activities, including student government, clubs and organizations, athletics, recreational sports, participation in music and theatrical performances, other instructionally related activities (IRA), enterprise projects, and student employment on campus.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Teacher-Scholar Model involves interaction between faculty and professions/industries as well as with students.</td>
</tr>
<tr>
<td>Informal, Less Structured</td>
<td>Other items include ideas not easily classified with the above categories. This category included references to informal learning outside the classroom or lab not covered by organized co-curricular learning.</td>
</tr>
</tbody>
</table>

Members of the Master Plan advisory committee on academic and instructional space discussed student learning on December 5, 2014. The notes below summarize their ideas.

- Student empowerment, self-directed; immediate feedback; accommodation of different learning needs; Challenges in achieving depth, holistic understanding, sequential development given just-in-time world processing information glut
- Problem-based learning focused on ‘wicked’ or ‘risky’ situations rather than ‘set’ problems
- Learning as social experience; collaboration and team work across disciplines, between students and faculty, with industry
- Technology-enabled interactive learning, simulations, visual imagery
- Learning occurs everywhere; Experience-based learning; off-campus experience; at work places (hybrid work-learning)
- Learning occurs everywhere
- Courses from other institutions, in varying formats; modular units of learning; displacement of the traditional credit, course, classroom, degree
### The groupings below represent clusters of ideas that have emerged from faculty and student discussions, rather than definitive or exclusive categories.

<table>
<thead>
<tr>
<th>Formally Structured Pedagogy and learning includes flipped classes, hybrid and multi-mode instruction, and other forms of teaching and learning, including specific references to course content, format or delivery - except for problem-based learning which had its own category (below).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory, problem-based, project-based learning includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.</td>
</tr>
<tr>
<td>Collaboration: esp., across disciplines includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.</td>
</tr>
<tr>
<td>Technology and equipment includes any reference to technology and equipment, ranging from hardware to software (apps) in addition to support for problem-based learning or pedagogy.</td>
</tr>
<tr>
<td>Experiential learning outside classroom includes organized internships, co-op, field work, community-based, service-learning, client-based projects, and study abroad.</td>
</tr>
<tr>
<td>Co-curricular learning includes learning related to the student’s major as well as other kinds of activities, including student government, clubs and organizations, athletics, recreational sports, participation in music and theatrical performances, other instructionally related activities (IRA), enterprise projects, and student employment on campus.</td>
</tr>
<tr>
<td>Teacher-Scholar Model involves interaction between faculty and professions/industries as well as with students.</td>
</tr>
<tr>
<td>Other items include ideas not easily classified with the above categories. This category included references to informal learning outside the classroom or lab not covered by organized co-curricular learning.</td>
</tr>
</tbody>
</table>

### Academic Planning Workshop

*January 23, 2015*

Academic participants in the academic planning workshop on January 23, 2015 were asked to discuss emerging trends in teaching and learning. The following notes are representative of their postings.

- Individualized, self-directed; multiple-mode teaching; flipped; integrated lecture/discussion/activity/lab; role playing, simulation; peer-to-peer learning; just-in-time remediation; habits-of-mind; discovery (allowing for failure) professionals in residence; scheduling and room assignments to accommodate flexible teaching; changing faculty role
- Case studies for problem-solving; research and Learn by Doing; reflective project-based courses; balance abstract and concrete
- Interdisciplinary teams solving problems together, co-teaching across departments, colleges; mix student levels; integrated (core) courses; common first year experience; senior project teams
- Computer/technology-enabled; hybrid/online; clickers/apps for engagement, feedback; simulations, virtual labs; communication technology to bring in experts
- Community/industry projects; early field experience; service learning; senior projects; international/intercultural experience
- Co-curricular opportunities
- Informal learning in social spaces with proximity to faculty; assessment/research driven teaching and learning
The groupings below represent clusters of ideas that have emerged from faculty and student discussions, rather than definitive or exclusive categories.

<table>
<thead>
<tr>
<th>Formal, Structured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedagogy and learning includes flipped classes, hybrid and multi-mode instruction, and other forms of teaching and learning, including specific references to course content, format or delivery - except for problem-based learning which had its own category (below).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Formal, Structured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory, problem-based, project-based learning includes Learn by Doing, and other references to laboratory, problem-based, and project-based learning with a reflective component.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration; esp., across disciplines includes all inter-, multi-, cross-disciplinary and collaborative ideas, including team teaching and collaborative student activities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology and equipment includes any reference to technology and equipment, ranging from hardware to software (apps) in addition to support for problem-based learning or pedagogy.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Informal, Structured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiential learning outside classroom includes organized internships, co-op, field work, community-based, service-learning, client-based projects, and study abroad.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Informal, Structured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-curricular learning includes learning related to the student’s major as well as other kinds of activities, including student government, clubs and organizations, athletics, recreational sports, participation in music and theatrical performances, other instructionally related activities (IRA), enterprise projects, and student employment on campus.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Informal, Less Structured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher-Scholar Model involves interaction between faculty and professions/industries as well as with students.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Informal, Less Structured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other items include ideas not easily classified with the above categories. This category included references to informal learning outside the classroom or lab not covered by organized co-curricular learning.</td>
</tr>
</tbody>
</table>

Students who participated in the ASI-sponsored Open House on January 29, 2015, were invited to comment on how they might learn in the future. The notes below reflect their postings.

Less structured in general - Self-paced, personal learning paths; more interaction, Socratic method; face-to-face interaction; flipped classes; online homework

Multiple approaches to Learn by Doing

Greater collaboration, interaction

More technology enabled - Smartboards; electronic textbooks; electronic uploading of information; holographic lectures

Build more on experience - Longer internships

More flexibility - Flexible outdoor learning areas; broader curriculum