Today’s universities are faced with numerous challenges and issues. Among others, HEI’s should be responding to current societal evolution and transformations. The share of highly-qualified is increasing. This is a world-wide trend not limited to economically advanced societies. Changing employment structures, increasing expectations of educational participation by the citizenry at large, and the presence of a growing number of professions in HEI’s, promote the expansion of higher education.

Recently, significant changes occurred in higher education generally and in the undergraduate curriculum in particular. These changes were propelled by several developments. Together they provided the momentum to enable higher education to make unprecedented strides. Educational leaders debate whether these changes are primarily additive and limited to small scale programmatic innovations or truly transformative for institutions and higher education. Nonetheless, there is widespread agreement that the academy and the undergraduate curriculum have evolved in significant ways.

Apart from providing scientific and research-based learning in a given subject, programs of study must meet differentiated social requirements and convey technical skills which higher education has not offered so far. There is a call for greater flexibility to accommodate learners’ needs and aspirations. Students should acquire self-organisation skills and become a “long life” learner.
Expansion, differentiation, and greater flexibility presuppose and bring innovative approaches to quality assurance in higher education. The need to promote social and political acceptance for higher education services, stakeholder expectations, supply-driven control of demand for higher education, the requirements of curricular development, as well as performance assessment of teaching-learning processes result in new forms of quality assurance, quality documentation, and evaluation being implemented.

Current study reforms throughout the globe are targeted at these global developments, relating specifically to the contents as well as to the organisation of study programs. The emphasis is on the acquisition and mastery of key competencies, or multi-functional skills. These skills comprise competencies to be acquired in addition to subject-matter know-how and are to enable students to cope with the requirements of different work settings and cultures, as well as with a renewed work place. There are also great concerns that HIE’s do not respond adequately to the requirements of employers. More emphasis on employability will ensure a stronger link between higher education and practice.

Constant revision and upgrade of curricula and programs of study are needed if HEI’s want to continue to be current and be able to answer to the requirements of society. Higher participation in higher education is also an important factor for countries that want to shift to a knowledge-based economy. Programs need to be more flexible with new forms of teaching and learning. Quality assurance is also more present on the horizon in order to guarantee standards in higher education and to insure transparency.

With these in mind, curriculum plays and will play an important role in the future. This is why the HERP project is paramount to the efforts of Mongolia’s HEI’s to transform its system. The present module should enable the participants to develop a framework for the future for curriculum development, evaluation and implementation.

2. Curriculum and curriculum models in Higher Education
Faculty within institutions of higher education are increasingly being asked to play leadership roles in curriculum assessment and reform initiatives. This change is being driven by quality concerns; escalating disciplinary knowledge; interest in a broader array of learning outcomes, including skills and values; and growing support for constructivist’s pedagogies and learning-centered, interdisciplinary curricula. It is essential that faculty be well prepared to take scholarly approach to this work. To that end, they need the frameworks used and lessons learned by faculty, administrators, and educational developers in a variety of curriculum design, assessment and development processes.

It is imperative for institutions to design their curriculum in such a way as to promote success among all students. An inclusive curriculum design approach is one that takes into account students’ educational, cultural and social background and experience. It enables higher education institutions (HEI) to embed quality enhancement processes that ensure an anticipatory response to equality in learning and teaching. Curriculum and academic plans should also be concerned with gender equity and be free of any biases. Curriculum developers and evaluators need to integrate that dimension in design and assessment of the content. Specific indicators should be part of the revision, assessment and evaluation of curriculum in HEI’s.

A number of important principles emerge from the literature on curriculum. These principles apply both to university-wide and more restricted disciplinary curricula and to curricula at both the undergraduate and graduate levels.

1. *A philosophy.* A curriculum should be founded on a carefully thought-out philosophy of education and should be clearly connected to an institution’s mission statement.

2. *Clear purposes and goals.* A curricular mission statement and written curricular goals (intended student development outcomes or intended results) articulate curricular purpose – what graduates should know and be able to do and those attitudes and values a faculty believes are appropriate to well-educated men and women. These goals and their objectives are specified in
considerable detail and in behavioral language that will permit assessment of their degree of achievement (the curriculum's actual outcomes).

3. A theoretically sound process. Student activities are chosen that are capable of developing the desired outcomes, as indicated by empirical research. Curriculum has its desired effect primarily through instruction. Therefore, the choice of course experiences and the specific quality and efficacy of these experiences in producing the stated intended outcomes for all students is fundamental to the quality of any curriculum. Current empirically based education theory is essential to effective instruction and thus the improvement of curricular quality. For example, there is little evidence that using traditional lectures will develop in students the higher-order cognitive abilities a faculty may value. Nevertheless, lecturing is still, by far, the predominant method of instruction in most institutions today.

4. A rational sequence. Educational activities are carefully ordered in a developmental sequence to form a coherent curriculum based on the stated intended outcomes of both the curriculum and its constituent courses.

5. Continuous assessment and improvement of quality. Valid and reliable assessment is preplanned to monitor on a continuing basis the effectiveness of the curriculum in fostering student development and also the actual achievement of defined institutional and curricular outcome goals. In many or most institutions there can be said to exist two potentially quite different curricula: one, an array and sequence of courses offered by the institution and intended by the faculty to be taken and a second, the specific courses actually taken and sequence followed by each student. The intent, content, educational experience, and thus outcomes of the two may be – and, as judged from some of the current research, are – quite different from each other. Careful monitoring of actual student course-taking behavior through transcript analysis can reveal the degree to which students are experiencing the faculty's intended educational process and achieving their intended outcomes.
By focusing on the design process it is possible to take a wider and more holistic view that is based on the recognition that all students are entitled to a quality learning experience. Attention to curriculum design encourages pre-planning and allows staff involved in teaching in higher education (HE) to adopt a proactive anticipatory approach to their learning and teaching. Inclusive curriculum design benefits both staff and students when it is based on principles of equity, collaboration, flexibility and accountability.

There are numerous definitions of curriculum at all levels of the educational spectrum. Let us consider the following definition of curriculum in Higher Education presented by Lattuca and Stark (2009):

An undergraduate curriculum is a formal academic plan for the learning experiences of students in pursuit of a college degree. The term curriculum, broadly defined, includes goals for student learning (skills, knowledge and attitudes); content (the subject matter in which learning experiences are embedded); sequence (the order in which concepts are presented); learners; instructional methods and activities; instructional resources (materials and settings); evaluation (methods used to assess student learning as a result of these experiences); and adjustments to teaching and learning processes, based on experience and evaluation. Although the term curriculum is variably used, this definition is sufficiently inclusive and dynamic to account for the many innovations in the undergraduate curriculum that involve instructional methods, sequencing, and assessments as well as instructional goals and content, all of which have been implemented in order to improve learning.

These authors also proposed a conceptual model in which curriculum is presented as an academic plan. A plan, according to the authors, is a blueprint for action, including purposes, activities and ways of measuring success. The intention of their plan is to foster learners’ academic development. It represents a planning process that focuses attention on important educational considerations which will vary by field of study, faculty, students, institutional goals and others.
A visual representation of the model taken into consideration the sociocultural context is shown below and represents the various contextual factors and the elements that need to be considered when developing curricula.

![Academic Plan in Sociocultural Context](image)

Fig. 1: The Academic Plan in Sociocultural Context (Lattuca & Stark, 2009)

The plan or the conceptual model contains elements that are important for the attainment of all aspects related the educational experience of learners. The following table illustrates the elements and the definitions for each element:

<table>
<thead>
<tr>
<th>ELEMENTS</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purposes</td>
<td>Knowledge, skills and attitudes to be learned</td>
</tr>
<tr>
<td>Content</td>
<td>Subject matter selected to convey specific knowledge, skills and attitudes</td>
</tr>
<tr>
<td>Sequence</td>
<td>An arrangement of the subject matter</td>
</tr>
</tbody>
</table>
and experiences intended to lead to specific outcomes for learners

<table>
<thead>
<tr>
<th>Learners</th>
<th>How the plan will address a specific group of learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Processes</td>
<td>The materials and settings to be used in the learning process</td>
</tr>
<tr>
<td>Evaluation</td>
<td>The strategies used to determine whether decisions about the elements of the academic plan are optimal</td>
</tr>
<tr>
<td>Adjustment</td>
<td>Enhancements to the plan based on experience and evaluation</td>
</tr>
</tbody>
</table>

**Figure 2. Elements of the academic plan (Lattuca and Stark, 2009)**

Other considerations that are being put forward in HEI’s in regards to curriculum are the **innovations and reforms** that are occurring in order to improve the educational experience and relevancy of the educational content. Many of the curricular innovations and reforms during the last decades reflect three major shifts: (1) from learning goals that focus on mastery of content and content coverage to demonstration of broad competencies; (2) from learning in disparate disciplines to integrative and transversal learning experiences across the curriculum; and (3) from changes in subject matter as the primary means to improve learning to innovations in instructional methods and assessments as integral to curricular reforms. Diversity and global competency have emerged as major undergraduate curriculum issues, as well.

**From content to competencies.** In the first years of the twenty-first century, the undergraduate curriculum continued to consist of general education or liberal studies, a major specialization, minors, and electives. The rationale for this configuration has been to ensure breadth through distribution requirements and depth through the major. What has changed are the goals for learning—from emphasis on knowledge of disciplinary facts and concepts (what students know) to broadly defined competencies (what students are able to do with what they
know) to ensure that graduates have the skills needed by citizens in the twenty-first century.

The expanding list of proficiencies commonly identified by universities include: critical thinking and problem-solving; multiple modes of inquiry in the natural sciences and mathematics, social sciences, humanities, and arts; communication skills, including writing, speaking, and listening; technology and information literacy; sensitivity to diversity, including multicultural and intercultural competencies for participation in a pluralistic democracy; civic, global, and environmental responsibility and engagement; interpersonal skills, including teamwork and collaboration; self-awareness; moral and ethical reasoning, and integration of knowledge from diverse sources.

Integration across the curriculum. The majority of colleges and universities indicate that general education is a high priority among administrators and faculty, and their institutions are actively engaged in reviewing their general education programs. Given the difficulty of learning all the aforementioned competencies within a general education program, many institutions are blurring the boundaries between general education and the major by infusing these competencies throughout the educational experience. This can be seen in the adoption of upper division writing requirements and writing-intensive courses in the major; integrative capstone courses that require collaborative teamwork and projects; courses in the major that emphasize ethics and civic engagement; and the integration of technology, information literacy, and multiculturalism throughout the curriculum.

Diversity learning. Diversity learning is a high priority, including multicultural and intercultural understanding. Although variably defined, diversity learning often refers to sensitivity to difference, including race, gender, socioeconomic class, ethnicity, religion, sexual orientation, and disability. Increasingly multicultural perspectives are also infused throughout the curriculum, particularly in the humanities and social sciences.
Internationalization. Global competencies are often identified as a valued goal of liberal learning, but currently too few students develop intercultural competence during their university journey. Four elements commonly associated with internationalization include foreign language study, study abroad, global studies, and the presence of international students.

Concurrently, there were great strides in research on effective college teaching and learning, with shifts in emphasis from what teachers do to what students learn. New conceptions of learning that emphasize the social construction of knowledge gained advocates. New interdisciplinary fields were burgeoning (e.g., women's studies, ethnic studies, etc.). The re-conceptualization of faculty roles and rewards are important and so is giving legitimacy to the scholarship of teaching. Faculty development emerged as a field of practice to assist faculty in their instructional efforts; during this time, numerous institutions founded teaching and learning centers. Last but not least, new technologies had implications for new fields of study and their use in instruction and research. Taken together, these forces enabled significant reforms to develop and proliferate in higher education.
Furthermore, today’s HEI’s need to be relevant and prepare learners for the world whose waiting to integrate them in society and into the world of work. To ease the transition from university to work, institutions offer seminars and experiences. These are designed to help students integrate intentionally what they have learned in their major specialization and to relate those insights to other disciplinary perspectives, the community, or the work world.

**Learning communities** comprise curricular models that link courses or course work to reinforce their curricular connections, maximize opportunities for learners to collaborate with each other and their instructors, and provide interpersonal support. Although often designed for first-year students, learning communities now appear throughout the curriculum. They are designed to build communities of learners, and in many cases, provide the structure to promote interdisciplinary study and integration.

**Interdisciplinary studies**, which are considered a major trend in teaching and research, have grown exponentially. Two widespread innovations are first-year interdisciplinary seminars and courses based on themes or problems, many of which are team-taught. In addition, faculty across the disciplines use innovative pedagogies and course structures that promote integration and interdisciplinary perspectives, such as academic-service learning, multidisciplinary group work, internships, fieldwork, and study abroad.

**The expanding list of proficiencies** commonly identified by universities include: critical thinking and problem-solving; multiple modes of inquiry in the natural sciences and mathematics, social sciences, humanities, and arts; communication skills, including writing, speaking, and listening; technology and information literacy; sensitivity to diversity, gender issues and curriculum free of biaises, including multicultural and intercultural competencies for participation in a pluralistic democracy; civic, global, and environmental responsibility and engagement; interpersonal skills, including teamwork and collaboration; self-awareness; moral and ethical reasoning, and integration of knowledge from diverse sources.
Peter Wolf, of Queen’s University in Canada, is one of the leading authorities on higher education curriculum. His emphasis in research has principally been in the area of extending education development through course and curriculum interventions. When he was at the University of Saskatchewan, he was instrumental in developing the following cycle named “Curriculum, Innovation and Renewal Cycle”. Six (6) steps are suggested in the process, while four pillars support the innovation and renewal cycle.

Figure 2: Curriculum, Innovation and Renewal Cycle- University of Saskatchewan Model

The six (6) major steps suggested in the overall process are the following:

1. *Informed Imagining or visioning*: Focusing on the future and looking at a vision, you set the stage for the rationale for your program. What kind of
competencies and attributes should the students possess upon completion of their program of study? What are the requirements of society and the employers of tomorrow?

2. **Inventory**: In this step, you are concerned about the present state of your program, what you offer now and an analysis of the actual content of your curriculum.

3. **Identify Congruencies**: For the analysis that you have done in the previous sequence, and the vision that you have establish, you then compare both and identify similarities and differences that might exist.

4. **Implement**: At this stage of the exercise, you need to identify the needed changes and develop the strategies and actions required to proceed to the proposed modifications.

5. **Investigate impact**: Assess how the changes and the new realities that you are in the process of implementing will impact the future.

6. **Re-Imagine**: The final step presented by the author looks at the next steps and to re-affirm the importance of developing an innovative curriculum and challenging programs of study that reflects today’s needs and its future.

As the model describes, there are four pillars that support the proposed model presented by Wolf. First, in the case of University of Saskatchewan, there were the four areas of focus, namely Knowledge Creation, Aboriginal Engagement, Innovation and Culture and Community. In *Knowledge Creation*, there are the following characteristics:

- Innovative practices
- Hiring the best Faculty/Researcher
- Support Faculty and Students to succeed
- Strengthen strategic focus

The second pillar is *Aboriginal Engagement* which comprises of the following characteristics:

- Increased visibility of Aboriginal Culture and Symbols on Campus
- Strengthen sustainable relationships with Aboriginal communities
Celebrate success

The third pillar presented by Wolf is *Innovation in Academic programs and services*. It features the following characteristics:

- Focus on learner-centered programming and curricular innovation
- Foster student creativity and innovation
- Demonstrate effectiveness in all our practices and strategies
- Develop learning outcomes for all students

*Culture and Community* contains the following features:

- Open to change and risk
- Promote new ventures and innovative practices
- Celebrate and promote diversity and inclusiveness

This model then adopt the ten High-Impact Educational Practises which were develop by the Association of American Colleges and Universities in 2008. These practises are important factors that contribute to the success of the students. They have been widely tested and have been shown to be beneficial for university students from many backgrounds. These practices take many different forms, depending on learner characteristics and on institutional priorities and contexts.

1. **First-Year Seminars and Experiences**

Many HEI’s now build into the curriculum first-year seminars or other programs that bring small groups of students together with faculty or staff on a regular basis. The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students’ intellectual and practical competencies. First-year seminars can also involve students with cutting-edge questions in scholarship and with faculty members’ own research.

2. **Common Intellectual Experiences**
The older idea of a “core” curriculum has evolved into a variety of modern forms, such as a set of required common courses or a vertically organized general education program that includes advanced integrative studies and/or required participation in a learning community. These programs often combine broad themes—e.g., technology and society, global interdependence—with a variety of curricular and co-curricular options for students.

3. Learning Communities

The key goals for learning communities are to encourage integration of learning across courses and to involve students with “big questions” that matter beyond the classroom. Students take two or more linked courses as a group and work closely with one another and with their professors. Many learning communities explore a common topic and/or common readings through the lenses of different disciplines. Some deliberately link “liberal arts” and “professional courses”; others feature service learning.

4. Writing-Intensive Courses

These courses emphasize writing at all levels of instruction and across the curriculum, including final-year projects. Students are encouraged to produce and revise various forms of writing for different audiences in different disciplines. The effectiveness of this repeated practice “across the curriculum” has led to parallel efforts in such areas as quantitative reasoning, oral communication, information literacy, and, on some campuses, ethical inquiry.

5. Collaborative Assignments and Projects

Collaborative learning combines two key goals: learning to work and solve problems in the company of others, and sharpening one’s own understanding by listening seriously to the insights of others, especially those with different backgrounds and life experiences. Approaches range from study groups within a
course, to team-based assignments and writing, to cooperative projects and research.

6. Undergraduate Research

Many colleges and universities are now providing research experiences for students in all disciplines. Undergraduate research, however, has been most prominently used in science disciplines. With strong support from the research community, scientists are reshaping their courses to connect key concepts and questions with students' early and active involvement in systematic investigation and research. The goal is to involve students with actively contested questions, empirical observation, cutting-edge technologies, and the sense of excitement that comes from working to answer important questions.

7. Diversity/Global Learning

Many universities now emphasize courses and programs that help students explore cultures, life experiences, and worldviews different from their own. These studies—which may address diversity, world cultures, or both—often explore “difficult differences” such as racial, ethnic, and gender inequality, or continuing struggles around the globe for human rights, freedom, and power. Frequently, intercultural studies are augmented by experiential learning in the community and/or by study abroad.

8. Service Learning, Community-Based Learning

In these programs, field-based "experiential learning" with community partners is an instructional strategy—and often a required part of the course. The idea is to give students direct experience with issues they are studying in the curriculum and with ongoing efforts to analyze and solve problems in the community. A key element in these programs is the opportunity students have to both apply what they are learning in real-world settings and reflect in a classroom setting on their service experiences. These programs model the idea that giving something back
to the community is an important college outcome, and that working with community partners is good preparation for citizenship, work, and life.

9. Internships

Internships are another increasingly common form of experiential learning. The idea is to provide students with direct experience in a work setting—usually related to their career interests—and to give them the benefit of supervision and coaching from professionals in the field. If the internship is taken for course credit, students complete a project or paper that is approved by a faculty member.

10. Capstone Courses and Projects

Whether they’re called “senior capstones” or some other name, these culminating experiences require students nearing the end of their college years to create a project of some sort that integrates and applies what they’ve learned. The project might be a research paper, a performance, a portfolio of “best work,” or an exhibit of artwork. Capstones are offered both in departmental programs and, increasingly, in general education as well.
The final component of this model is the Learning Charter Core Learning Goals. It consists of five dimensions that are crucial to the success of the educational experience of the learner. These dimensions are:

- **Discovery**: Instill the passion for learning new information and seeking new experiences.
- **Knowledge**: The content of the curriculum which is being taught and learned by the students.
- **Integrity**: Honesty and reliability are important guiding principles in HEI's.
- **Skills**: The abilities that the students should acquire through his stage at the university.
- **Citizenship**: Social responsibility need to be integrated into the learning experiences of the students attending HEI’s.

Advices to Faculty

Faculties are responding to the challenge of effective curriculum by turning their attention to what are in many cases long neglected curricular matters. They are doing so as a practical means of both attracting and retaining more students, ensuring their success, and producing high quality, fair outcomes for everyone. An effective curriculum – one that produces the results it claims in all of a college’s diverse students – depends for its success upon a high-quality program of academic advising. Modern academic advising is developmental, starting with each student’s values and goals, and helps all students design curricular and noncurricular experiences that can help them achieve their own goals and the institution’s intended learning outcomes.

Clearly defined intended curricular outcomes enable a faculty to understand, communicate about, and control – manage – learning through the curriculum more effectively. Today, clearly stated, written outcomes are essential to good curriculum design, implementation, and assessment. Specifically, curricular outcome goals and objectives:
1. Provide the solid foundation of intended outcomes.

2. Provide specific direction for the continuous monitoring – assessment and evaluation – of the actual outcomes the curriculum produces.

3. Reduce the potential for untoward teaching to the test – the corruption of the curriculum by instruction directed toward chosen assessment indicators; rather, both the instruction and the indicators are aimed at the outcomes previously defined by the faculty.

4. Avoid the dumbing down of curricula in response to increased student diversity and under preparedness by providing firm, clearly identified outcome standards and by requiring the educational process to change in response to altered student needs.

5. Guard against grade inflation and the consequent reduction in student, and perhaps faculty, quality of effort and the devaluation of degrees.

6. Enable a faculty to resist academic drift, where a college or program with one mission or curricular purpose gradually and unconsciously drifts away to some other purpose or purposes.

7. Enable a faculty to deal more straightforwardly and rationally with conflict over curricular content, such as disputes related to departmental turf.

8. Help everyone involved – faculty members, students, administrators, trustees, parents – understand the institution or program and the results it claims to produce.

9. Increase the perception of institutional openness, candor, and integrity among all of the institution's customers and stakeholders.

Another consideration regarding curriculum deals with responding to questions on the process:

- What educational purposes should the institution seek to attain?
- What educational experiences can be provided that are likely to attain these purposes?
- How can these educational experiences be effectively organized?
- How can we determine whether these purposes are being attained?
Another rational/objective model was developed by Hilda Taba. It was based upon the curriculum development process that introduces additional steps and called for more information to be provided for each of them. The model is:

- Step 1: Diagnosis of needs
- Step 2: Formulation of objectives
- Step 3: Selection of content
- Step 4: Organization of content
- Step 5: Selection of learning experiences
- Step 6: Organization of learning experiences
- Step 7: Determination of what to evaluate and the ways and means of doing it.

Curriculum is the rational conversation between learner and coursework in higher education. It is the students' experience, on any given campus, of any given course; each syllabus represents one sequential or supporting piece of evidence that students have indeed engaged the institution. Curricula are as distinct as learners, and more differentiated than ever before in the history of education, in terms of guiding framework, applications and practices, and enrollments. Just as the term was used to imply both direction and pace in its original context in Latin, curriculum, much like a river, follows both a recognizably fluid and formed course.

In the future, people will likely change careers and jobs several times in the course of their productive years. As the nature of employment changes within society, educational goals likewise shift. Curricula serve as an important measure of learning and student achievement within a shifting landscape, so any institutional assessment of curriculum should provide compelling answers to increasingly demanding questions and needs of the society, the state agencies funding higher education, and the individual learners and participants themselves.

In response to mounting criticism that the undergraduate curriculum is fragmented, hampered with too many isolated bits of information, and lacking
coherence, institutions have developed strategies and processes to help students integrate the disparate elements of their college experiences. One strategy has been to clarify, tighten, and sequence requirements so they provide greater coherence. A second strategy has been to provide educational experiences adjusted to the developmental learning needs of students at different stages of their university experiences.

Acquiring gender skills has been found to be an indispensable requirement for a gender-specific design of teaching, junior staff promotion and human resources development. Gender-specific design relates to the design of study programmes offered, curricular structures, forms of teaching and learning, and the integration of women's and gender research in teaching from the angle of the specific outlooks, needs, and life scenarios of young women and men.

Basically, there are two different approaches to Curriculum designs. The first one is subject-centered and the second one being learning-centered. As you may have noticed, we favour a learner-centered approach.

Let's examine the subject-centered approach and its specific characteristics:

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discipline-based</td>
<td>Centered on the conceptual structures of the discipline and inform the work of people in the discipline (they ignore knowledge that lie between disciplines but may be the future).</td>
</tr>
<tr>
<td>Broad Fields</td>
<td>Merge several disciplines into an interdisciplinary area (allow more integration) e.g. science, social studies, humanities.</td>
</tr>
<tr>
<td>Conceptual clusters</td>
<td>Broad fields can have clusters: e.g. science, technology and society.</td>
</tr>
<tr>
<td>Theme-based</td>
<td>Emphasises importance of finding</td>
</tr>
<tr>
<td>DIMENSIONS</td>
<td>CHARACTERISTICS</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>patterns/relationships between concepts. Based on culture, experiences.</td>
<td></td>
</tr>
<tr>
<td>Figure 4. Subject-Centered Approaches to Curriculum Development</td>
<td></td>
</tr>
</tbody>
</table>

Let us now examine the learner-centered approach:

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negotiated</td>
<td>Learners, within some boundaries of the resource available, negotiated what they will/need to learn. Use of learning contracts and agreements, variety of assessments.</td>
</tr>
<tr>
<td>Process based</td>
<td>Emphasis on the process of learning, i.e. critical thinking, information retrieval, less on the content. Assessment should reflect the process, i.e. self-assessment, reflection, etc.</td>
</tr>
<tr>
<td>Integrated curriculum</td>
<td>Design that encourage integration of concepts across, within and to future knowledge (significant learning, spiral curriculum)</td>
</tr>
<tr>
<td>Problem-based curriculum</td>
<td>The learning that results from the process of working towards the understanding of a resolution of a problem. The problem is encountered first in the learning process.</td>
</tr>
</tbody>
</table>

Many of the Learner-Centered designs are used when faculty members feel learners may be able to make more informed decisions. However, this model can
be implemented with proper coaching and developing the student’s creativity. Problem-Based learning model is one that promote the utilization of “real-life” situations where the learner is challenged to solve issues and challenges that they will eventually meet in the future.

Another conceptual approach to curriculum development and design is competency-based curriculum. Competency-based Curriculum is directly related to professional practise. The curriculum has an integral set-up in which the profession is central. It is learner centered and the learning process is central. A learner centered approach requires the use of individualized approaches, flexibility in learning time and continuous feedback to the learner. The learner has to be engaged in his learning. In Competency-based curriculum, disciplinary content is no longer the sole criteria for the development of curriculum, but the competencies become central; these competencies should have been acquired and developed by the end of the education program.

The Competency-based approach includes the development of generic competencies throughout the whole curriculum and these should be transferred to “real life” situation. It focuses on innovation, creativity and problem solving while self-reflection and self-assessment play a fundamental role.

This model has three fundamental dimensions:

- The determination of the disciplinary and functional subject areas
- The development of general skills and competencies (elaboration of profiles)
- The capacity to “Learn to Learn” with an assessment/evaluation approach

There are four categories of competence-based curricula (Dochy et Nickmans, 2005). Here are these categories and their descriptions:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purposeful education, new objectives and renewed teaching and learning</td>
<td>• Professional practise point of departure</td>
</tr>
<tr>
<td>approaches.</td>
<td>• Competencies are decomposed</td>
</tr>
<tr>
<td>CATEGORY</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>into knowledge, skills, attitudes and “how to do”</td>
</tr>
<tr>
<td></td>
<td>• More attention for application of knowledge and skills</td>
</tr>
<tr>
<td></td>
<td>• Inclusion of generic competencies</td>
</tr>
<tr>
<td></td>
<td>• Emphasis on active learning</td>
</tr>
<tr>
<td>Integration via cases</td>
<td>• Knowledge, skills and attitudes formulated as separate objectives, but always linked to professional practise and often leading the integration</td>
</tr>
<tr>
<td></td>
<td>• Use of realistic and authentic situations</td>
</tr>
<tr>
<td>Learning and development trajectories</td>
<td>• Inclusion of learning (development) pathways in the curriculum</td>
</tr>
<tr>
<td></td>
<td>• Systematic and gradual development of competencies</td>
</tr>
<tr>
<td></td>
<td>• Emphasis on generic competencies</td>
</tr>
<tr>
<td></td>
<td>• Increasing complexity and decreasing guidance and coaching</td>
</tr>
<tr>
<td></td>
<td>• Learning to learn is the optimal goal</td>
</tr>
<tr>
<td></td>
<td>• Not only assessment and evaluation of performance of student (in terms of knowledge, skills and attitudes) but also of personal development</td>
</tr>
<tr>
<td>Demand-driven, aimed at</td>
<td>Separate teacher directed and</td>
</tr>
<tr>
<td>CATEGORY</td>
<td>DESCRIPTION</td>
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<td>----------------------------------</td>
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<tr>
<td>development of competencies</td>
<td>student directed parts</td>
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<tr>
<td></td>
<td>- From teacher: authentic tasks with increasing complexity and decreasing guidance</td>
</tr>
<tr>
<td></td>
<td>- From student: formulation of personal development plan</td>
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<td></td>
<td>- Practical problems lead to input by teacher</td>
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<td></td>
<td>Completely demand-driven</td>
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<td></td>
<td>- Start with a broad, open assignment</td>
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<td>- Student formulates learning questions</td>
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<td></td>
<td>- Student, guided by teacher, formulate personal development plan and related competency matrix</td>
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<tr>
<td></td>
<td>- Student indicates what competencies will developed what at what level.</td>
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</tbody>
</table>

Table 6. Four categories of competence-based curricula (from Dochy & Nickmans, 2005)

One way of dealing with the pitfalls of superficial learning through CBE in Higher Education has been a focus on the question what makes education “academic” or what academic competencies students should acquire and possess in higher education programmes.

As far as teaching and learning methods are concerned, in CBE various approaches can be found: Problem based learning, project based education,
case based learning and dual learning with internships (Co-op) in the world of work.

A university graduate should master the following competencies:

- **Is competent in one or more scientific disciplines:** A university graduate is familiar with existing scientific knowledge, and has the competence to increase and develop this through study.

- **Is competent in doing research:** A university graduate has the competence to acquire new scientific knowledge through research. For this purpose, research means: the development of new knowledge and new insights in a purposeful and methodical way.

- **Is competent in designing:** As well as carrying research many university graduates will also design. Designing is a synthetic activity aimed at the realisation of new and modified artefacts or systems with the intention of creating value in accordance with predefined requirements and desires (e.g. mobility, health)

- **Has a scientific approach:** A university graduate has a systematic approach characterized by the development and use of theories, models and coherent interpretations, has a critical attitude, and has insight into the nature of science and technology.

- **Possesses basic intellectual skills:** A university graduate is competent in reasoning, reflecting and forming a judgment. These are skills which are learned or sharpened in the context of a discipline, and which are generically applicable from then on.

- **Is competent in co-operating and communicating:** A university graduate has the competence of being able to work with and for others. This requires not only adequate interaction, a sense of responsibility, autonomy, and leadership, but also good communication with colleagues and non-colleagues.

- **Is competent in utilizing technology** and to organize and interpret the information available through today’s and tomorrow’s technology.
In closing this section of the module, let us reiterate that no one model is ideal and no one model may be suitable to a complete program. For example, in some science and health related programs, you may use a more technical-scientific approach in the initial year and a more experiential approach later in the program of study.
3. Curriculum Design and Review

3.1 Curriculum Design

Effective curriculum design can help an institution to get the most from the resources it has available; it can also lead to a curriculum which is easier to modify and update subsequently, helping the ongoing process of curriculum development.

In general terms, an effectively designed curriculum will tend to have the following features:

- **Well-balanced**: the various components are each given their different weight, as appropriate, but no element is given more than its fair share.

- **Full, but not overloaded**: deliverable within the resources available - an over-full curriculum will, in any case, lead to students choosing which elements they will attend and which they will miss, since they can’t attend everything. The waste in such a situation is obvious.

- **Flexible**: adaptable to the different needs of different students; responsive to changing priorities and alert to likely future requirements of the profession.

- **Progressive**: encouraging students to grow and develop as they pass through the programme, often by starting with a structured and largely compulsory pattern of studies and moving to one in which choice plays a greater part.

- **Student-centered**: recognizing that, for each student, the curriculum is more than simply the pattern of lessons and classes that the institution offers – it is the sum total of everything the student is learning and absorbing during his or her time at the institution.

- **Focused on learning**: selecting teaching methods and methods of assessment on the basis of how well they encourage learning and then demonstrate that it has been achieved.
It is an imperative on institutions that they design their curriculum in such a way as to promote success among all students. An inclusive curriculum design approach is one that takes into account students’ educational, cultural and social background and experience. It enables higher education institutions (HEI) to insert quality enhancement processes that ensure an anticipatory response to equality in learning and teaching. This practical guidance draws on a wide range of activity and innovation within the sector and offers examples of effective strategies and general resources to support the curriculum design process.

Attention to curriculum design encourages pre-planning and allows staff involved in teaching in higher education (HE) to adopt a proactive anticipatory approach to their learning and teaching. Curriculum design benefits both staff and students when it is based on principles of equity, collaboration, flexibility and accountability.

The internationalisation of higher education and increase in the numbers of international students is a key driver for changes to learning and teaching policy and practices. The Bologna Process and/or institutional collaborations have increased the emphasis in the HE sector on developing international partnerships and interaction about the curriculum.

Five Key Curriculum Design Principles

1. **Alignment / interdependence**: all elements are in alignment, they are all interdependent, they form a system and together they send the same message

2. **Strategy**: teaching (and learning) is deliberate and purposeful, therefore it is strategic and directed – and that means, it is aligned with the rationale.

3. What’s driving the learning? **The assessment**:
   - Should be an integral part of your teaching strategy (it is a teaching method).
   - Should be seamlessly integrated with the rationale+aim+objectives.

4. Each **assessment item**:
Should map to specific objectives

Should have a clear purpose.

5. **Validity check the assessment:**

- Did you assess something not specified in the aims? Why?
- Did the aims specify something you did not assess? Why?
- Do the assessments measure what they meant to?

### 3.2 Curriculum Review

Before an institution or a department can undertake the reviewing of a curriculum or a program, efforts must be made to ensure that changes made to existing curricula and programs meet the overall objectives and goals of the program itself. The process of developing a new curriculum is one that must be undertaken methodically. It is important that departmental colleagues reach a consensus regarding fundamental aspects of the program. Below is a list of areas that should be considered once a decision is made to review a curriculum for a department or a unit.

1. **Philosophy**

Record your beliefs, assumptions, and values related to your program and your teaching. You might begin this process by examining your mission statement, reviewing professional accreditation requirements, or by soliciting feedback from Faculty. The department should arrive at a consensus regarding the program’s philosophy.

2. **Students**

Review the characteristics and the antecedents of the students in your program. List common learning characteristics that are instrumental in determining the nature of your courses of instruction. For example, students may speak English as a second language, come from a different culture or may be responsible for families. You need to consider gender and other characteristics that will influence eventually your curriculum.
3. Goals & Objectives

List the goals and objectives of your program. This list should include the knowledge, skills, and attitudes/values that you expect students to have when they leave the program and the university. For example:

- students will be able to critically review research articles in the discipline
- students will be able to develop and implement computer simulations

4. Structure and Sequencing

Review each individual course in the program to determine its contribution to individual goals and objectives. Also consider which course(s) inform other courses and the sequence in which students take the courses and/or are required to take the courses. Try to develop a “flow chart” or a hierarchical diagram which illustrates the relationships among courses in the program and how they lead to overall program goals. This analysis might reveal gaps, redundancies, or illogical sequences in the program (for example, program goals that are not addressed through specific courses; unnecessary prerequisites, and so on). If so, changes in course syllabi should be addressed.

5. Instructional Strategies

List instructional strategies (methods and materials) used for each course. Include information on: a) lecture and questioning, b) group work, c) online components (if any), d) library readings and e) textbook and assigned readings. These strategies should be analyzed based on the extent to which they meet the needs of the learner population and match the program goals and objectives.

The primary consideration here is whether the methods and materials align with outlined learning expectations. If students are expected to demonstrate knowledge of a particular skill, teaching strategies must provide opportunities for student to “do” that skill. For additional advice concerning instructional strategies, a Centre for Teaching and Learning at your institution would be a great asset.

6. Evaluation of Learning
Instructors should list the strategies and the techniques used to evaluate student learning. For instance, a) essays, b) multiple choice tests, c) group work, d) independent projects. These strategies and these techniques should be analyzed as to the degree to which they meet the needs of the student population, match instructional methods and materials and match program and wider university goals. Evaluations should not only reflect the content of the course and program, but also the nature and type of expected learning.

7. Evaluation of Instruction

How is the effectiveness of instruction in the course/program evaluated? This is as much a part of the curriculum as evaluation of learning. These techniques should be listed. For example, a) student ratings of instruction, b) review of student work, c) anecdotal comments, letters, and records, and d) peer review of course outlines. The department should ensure that all aspects of the program are regularly and systematically reviewed for the purpose of making changes and improvements in the program.

4. Best Practises in Curriculum

As outlined in various papers, articles and research papers, curriculum, teaching and learning are key factors into the success and performance of the students enrolled in higher education throughout the world. Its success lead to the overall performance and the pertinence of higher education institutions.

Many countries have reviewed their higher education sector similarly to what Mongolia has initiated a few years ago. Curriculum, teaching and learning are essential facets to the renewal and reform initiatives taken by HEIs. They have developed, designed, implemented and evaluated their curriculum by comparing what the other countries have done and adapted it to their context.
This section of this module presents an overview of the best practises and lessons learned, and furthermore what should be done in the future. The process and outcomes of our evidence-based curriculum review process offers insights into the ways in which evaluation data and its analysis can underpin the key decisions associated with major curriculum changes in HEIs. Following are examples of core features drawn from this literature that were incorporated into their new curriculum and that can be adapted to the present project in Mongolia in terms of curriculum and learning.

A first study was completed in Australia in the area of curriculum in dentistry. The study examined the elements of worldwide practises in health related education and they integrated these in the new curriculum. Their search of global health professions and higher education literature revealed well-established approaches in the education of health professionals, underpinned by sound conceptual frameworks and the application of core higher education principles. The study utilized a cross-sectional, longitudinal, repeated measures design and used Vermunt's Inventory of Learning Styles (VILS). This is a validated survey instrument that measures students' preferences for four (4) learning styles: (1) meaning directed - deep processing strategies, self-regulation and learning viewed as a personal construction; (2) reproduction directed - surface processing strategies, dependence on external regulation, learning viewed as intake of knowledge, and desire to demonstrate ability; (3) undirected - poor self-regulation, ambivalence in learning orientation, and value given to external sources of help; and (4) application directed - strong vocational orientation to learning and a belief that learning is the use of knowledge.

While variations between countries were evident, there was concordance on a basic set of core competency areas, including communication, ethical practice, patient-centred care, and medication-use systems. The following findings can certainly guide HEIs in the development of new curriculum and review of existing curriculum and programs. The first one deals with spiral curriculum construction, incorporating both vertical and horizontal integration of course content – a key
feature of Harden's SPICES (Student-centred, Problem-based, Integrated, Community-orientated, Electives, Systematic) model for curriculum planning.. The second concept submitted in the study dealt with the comprehensive statement of learning outcomes that describes knowledge, skills, and behavioral milestones to be achieved each year and by the time of graduation, and that reflects the continuum of cognitive complexity that is represented in Biggs' SOLO (Structured Observation of Learning Outcomes) taxonomy. Finally, there should be constructive alignment among learning outcomes, learning activities, and assessment tasks – a particular feature of the systematic element of the SPICES model.

In Lattuca and Stark (2009), the conceptual model presented by the authors is based on experiences derived from various quality higher education curriculum that exist in American Higher Education institutions. Support for quality curriculum and teaching can be manifested through a wide range of activities that are likely to improve the quality of the teaching process as well as the learning conditions of students. These can include initiatives such as:

- A centre for teaching and learning development
- Outcome-based curriculum
- Faculty engagement in curriculum design, review and evaluation
- Professional development activities (e.g. in-service training for faculty)
- Teaching excellence awards and competitions for remarkable improvements
- Teaching innovation funds
- Teaching recruitment criteria
- Communities of teaching and learning practices
- Organization and management of teaching and learning
• Support to foster student achievement (e.g. counselling, career advice, mentoring…)

• Students’ evaluation (i.e. programme ratings, evaluating learning experiences)

• Self-evaluation of experimentations, peer-reviewing, benchmarking of practices

• Community service and work-based programmes, development-based programs

In order to implement strategies to improve curricula, the committees in charge and the institutional officials should be concerned about the following requirements. There is a need to be kept informed about recent educational research and teaching best practices. Faculty members need to be interested in learning more about research-led teaching, student motivation, and trends in the various content areas. Secondly, the instructional design is also crucial to assist those in charge for curriculum, teaching and learning. Practical help should be available in designing units (eg, linking the elements of lectures, tutorials, practicals and Web assistance (University-wide Learning Management System); showing the relevance of what is being taught to students; writing learning outcomes that are assessable and linked to content; the logistics of portfolios; improving self-directed learning, techniques for face-to-face teaching including interacting with students in lectures, ways to give feedback, and how to identify and handle at-risk students.

Faculty Collaboration or Course Continuity is also an important asset for success. There should be opportunity to work together more effectively. This includes having access to the previous year's teaching materials, being able to view each other's current teaching materials in order to better highlight the cross-links to students, better integration of course content, improved communication where there are several academics involved in teaching a course unit, and identifying unnecessary duplication across the required curriculum. The last
component that shows promise for curriculum developers and faculty members interested in improving their teaching and foster learning is as follows: Achieving the process of “meaningful learning” can be facilitated further by our knowledge of students' strong preference for an application-directed style to their learning. By grounding activities and assessment tasks in the application of concepts to the practice of the content, learners are engaged in a way that we know is of personal relevance and interest to them. Students tend to rely on external sources of regulation and assistance to guide their learning; thus, the existing gap between student and faculty perceptions of what constitutes “effective” learning and teaching needs to be narrowed. There is a need to craft learning environments and activities that incorporate practice applications to stimulate curiosity and motivate students to take charge of and actively engage in their learning.

Biggs (2003) presented an overview of some of the practises in England regarding curriculum development, assessment and evaluation. His perspectives were drawn from the assumption that curriculum development, teaching and learning are fundamental to the success of HEIs and the journey of learners. The trends regarding these three topics should be based on a new paradigm where new relationships are needed. There should a wider range of communication and collaborative working through learning models and frameworks. Among his suggestions for improving the academic performance of universities are:

- Bridging teaching and research more intensively
- Re-designing of curricula
- Creating of innovative learning platforms
- Re-thinking of student workload and teaching load
- Continuous upgrading in pedagogy, use of technologies, assessment models aligned with student-centred learning
- Providing guidance, mentoring, coaching and tutoring to students with new means and methods
- Assessing impacts and documenting effectiveness of the teaching delivered
Looking at enabling learners to learn and practise creativity

In the global knowledge economy, forward thinking and innovation are recognized as opportunities for the future. Sustainable development and prosperity in tomorrow’s society will be supported by innovative higher education institutions and the forces of collective imagination. Global involvement of higher education institutions in today’s society should be at the forefront of HEIs. Curriculum should be developed by taking into account the context and the realities of the society in which the institutions operate. Partnerships with the various facts of the society are also instrumental in keeping abreast of the changes and the evolution that should be taken into account in curriculum development and teaching. Biggs concluded by stating that teaching need to be a dynamic and transformational act that is in connexion with “real life" situations.

Other models of teaching have been discussed by higher education specialists. In the US and Canada, many higher education researchers and influential national reports issued over the last decades have asserted that traditional educational practices cannot produce the complex kinds of student outcomes required today by employers and for effective citizenship. The shift from a tradition-based, primarily a theoretical educational process to a research- and theory-based process will require not only constant innovation to incorporate new findings about learning but also the high-quality faculty and staff professional development necessary to support this innovation. There are a number of projected future trends that will likely influence both the way we conduct our work in North American institutions in the years ahead and the role that faculty development will have to play in enhancing institutional quality.

University teaching increasingly will be viewed as a profession in its own right, underpinned by a solid base of knowledge derived from empirical studies and research on learning and student development, institutional effects on students, and the management of learning in complex organizations. Professors will need solid grounding in both theory and practice in both higher education and one or more disciplinary content areas.
Intended student outcomes will become more important than they in many cases are now. They will expand 1) beyond what is often primarily factual and low-level conceptual learning in a particular discipline to mastery of diverse higher-order cognitive skills such as critical thinking, complex problem solving, and reasoning and 2) beyond the cognitive and psychomotor domains of learning to outcomes that will include significant affective components such as self-esteem, creativity and interpersonal and team skills. Together these outcomes and results can lead to the development of the “complete individual” reading to become a change agent and a significant contribution in tomorrow’s society.

To achieve these diverse, complex, and often difficult-to-develop outcomes, faculty members will use student development theory based on empirical psychological research to adapt their instruction and advising to the needs of individual students. They should conduct classroom research using input, process, and outcome assessment methods to understand their learners and their educational processes and thus to improve learning.

Now and in the future, evaluation of faculty as educators increasingly will be based on the results of modern input, process, and outcome assessments, using multiple criteria and multiple indicators to reveal effectiveness in facilitating learning. Faculty evaluation will focus on the quality with which teachers implement what is currently considered good professional practice in curriculum design, instruction, academic advising and mentoring. It will also consist of other educational activities as appropriate to be defined and written intended outcome goals and objectives and the characteristics of their learners. Institutional and individual evaluation are seen as more important than ever and all accountability measures and efforts will continue to increase.

Wolf (2007), one of the Canadian expert on curriculum and faculty development in higher education, has presented the key attributes of a Curriculum Development Model. His approach is based on faculty driven, data-informed educational development supported process. It consists of describing and fostering a culture in which faculty explore program objectives and their
outcomes regularly. In order to be successful, he listed the attributes that are keys to its impact. To initiate the implementation of this model, he recommends that institution should begin with at least one faculty “champion.” The key to engaging curriculum evolution processes is at least one program faculty member who is willing to drive the process; to work within the program to engage faculty; to help design, collect, and interpret data; and often facilitate the process. Quite often this person is the chair of the program curriculum committee, and it is through this person that the committee often begins actively championing curriculum evolution processes. An additional advice from Wolf is to engage the services of a curriculum facilitator or educational developer. Access to an outside educational developer to support faculty-driven curriculum evolution processes can be extremely beneficial. Some of the key benefits to naming an outside educational developer as facilitator include added expertise in course design, awareness of the curriculum practices in diverse disciplines and contexts, familiarity with higher education–related teaching and learning theories and practices, and an ability to act as facilitator, change agent, and coach.

Educational developers skilled at supporting faculty-driven, data-driven curriculum development processes are careful not to walk into departments armed with experts’ books or worksheets. Rather, his main role is to ensure that the process stays on track and moves forward. The primary tasks for the educational developer are to encourage respectful consideration of diverse perspectives, bring an awareness of local and broader cultural issues or opportunities, offer expertise in a broad range of curriculum and education-related approaches, and provide access to the research literature.

Furthermore, the institution should use data as a foundation for development. The data coming from both the curriculum assessment and from the mapping processes engage faculty in meaningful ways. The value of data in providing a snapshot prompts scholarly discussions that can then prompt investigation into scholarly literature, attendance at conference presentations, and discussions with colleagues outside the program. These activities can then lead to contextually
innovative and well-grounded curriculum choices. Engaging in curriculum development has to be seen as a continuous improvement process. It has taken programs up to one year to complete all of the phases of this model, often in stops and starts as the routines of the academic year dictate. Once ideas are implemented, assessing and adapting the implementation begin, followed some time afterwards by the next full-scale curriculum assessment.

Engaging in curriculum development processes helps to foster a program culture that regularly and rigorously examines its curriculum. This approach works because it provides enough instructional design expertise on a just-in-time basis for faculty to develop their own capacity to move to their own next level of curriculum and course alignment in a context of complexity.

These few examples give us a sample of some of the models that can be adapted to the Mongolian context. Higher Education institutions should realize that curriculum, teaching and learning are at the heart of the vision and mission and that its importance can’t be minimized. By concentrating their efforts on the strategies of learning and the outcomes of the curriculum, the faculty members and the leaders of the institutions would benefit greatly and impact significantly the performance of these institutions. This process should accompany the change strategy since moving from traditional approaches to new and innovative ways of approaching curriculum, teaching and learning should be beneficial for preparing students for the future. In closing, one of the key ingredients of any major change in HEIs has to be the leadership that will be exercised and the engagement of Faculty.

Many of the curricular innovations and reforms during the last decade of the twentieth century reflect three shifts in emphasis: (1) from learning goals that focus on mastery of content and content coverage to demonstration of broad competencies; (2) from learning in disparate disciplines to integrative learning experiences across the curriculum; and (3) from changes in subject matter as the primary means to improve learning to innovations in instructional methods and
assessments as integral to curricular reforms. Diversity and global competency have emerged as major undergraduate curriculum issues, as well.

5. Curriculum Evaluation and Implementation

5.1 Curriculum Evaluation

One of the reasons why curriculum work is so challenging is that it is never done. Once the department, team or curriculum committees have developed the curriculum, it is imperative that processes are in place to ensure that the teaching and learning in the content area is helping students achieve.

As noted in various research reports and documents on the question, curriculum assessment and evaluation are essential ingredients for success. HEIs should develop principles and policies on the procedures and processes that will be used for assessing and evaluating its curricula.

The basic premise that sustains the exercise of the assessment and evaluation is to define what is meant by a quality curriculum. Here are the key elements sustaining this definition:

- Be consistent with the institution’s mission;
- Have clearly defined outcomes it intends to produce;
- Use the best combination of leaning journey and experiences to help each learner to achieve these results;
- Include an assessment process that shows whether the results are being achieved;
- Utilize the findings and the results of the findings of assessment to improve curriculum effectiveness.

In many instances, HEIs officials, administrators and faculty will complete their assessment and evaluation by answering a series of questions. These questions can be formulated and translated into indicators that will serve to assess the various aspects and processes of developing and implementing curriculum in higher education.
Let us also examine indicators and criteria by defining both terms in the context of evaluation and assessment in the field of education. A criterion represents a “standard, rule, or test on which a judgment or decision can be based”. An indicator is used “to observe progress and to measure actual results compared to expected results”. Performance indicators are usually expressed in quantifiable terms, and should be objective and measurable (e.g., numeric values, percentages, scores, and indices).

Five (5) major themes are suggested with a number of qualitative and quantitative indicators or criteria that can be used in the assessment and evaluation process.

A. **Mission, goals and objectives (Being clear and precise about purpose and desired results)**

- Consistency and flow in the curriculum in regards of the institution’s and departmental/Faculty mission statement.
- Assumptions and assessment made about entering students’ developmental levels, knowledge, skills and affective characteristics.
- Intended learning outcomes articulating the knowledge, skills, attitudes and values proposed to introduce or reinforce students’ achievement upon graduation.
- Written intended outcomes in specific language that is clear and understandable in the same way to students, faculty members and administrators.
- Intended outcomes stated in terms of effective goals and objectives enabling assessment of students’ success.
- Input was sought for all concerned stakeholders in identifying and developing these intended outcomes.
- Agreed upon intended learning outcomes for each of the major areas within the curriculum (humanities, natural sciences, social sciences, general education, professional programs, etc.).
- Number or percentage of courses with clearly stated outcomes derived from the intended outcomes of the curriculum.
- Outcome goals and objectives include higher-order cognitive and complex behaviors.
- Each course’s intended outcomes contributes to learners’ achievement of the curriculum in a deliberate and predetermined way.
- Outcome goals and objectives required for programs where accreditation exists are built into the curriculum’s intended outcomes.
- Sequencing of curriculum permits that the learning outcomes of prerequisite courses provide all required inputs.

**B. Monitoring program quality: Knowing and improving actual results**

- Assessment plan that ensure graduates of the program have the competencies (knowledge, skills, attitudes and values) as intended outcomes of the curriculum.
- Global assessment of the curricula versus assessment of the intended outcomes of each of its individual courses.
- Diversity in methods of assessment for each type of learning strategies and outcomes.
- Variety and alignment between the intended outcomes and assessment techniques.
- Direct measurement of learners’ intended outcomes in both curriculum and courses.
- Public and effective communication of the findings and results to interested stakeholders (timely and in a language they can understand).
- Number of faculty members using information generated by assessment to improve learning in their courses.
- Number of faculty members collecting and using data on students’ perception and their level of satisfaction with the course.
C. The educational process: Producing learning

- Quality of educational process (consistent with research) to help students’ learning and reaching courses’ and curricula’ outcomes.
- Relationship between curriculum design and application of intended outcomes as it relates to opportunities to apply to issues, situations and problems (learners using their knowledge, skills, attitudes and values identified).
- Percentage of class time learners are spending in traditional lecturing.
- Percentage of active learning through internships, case studies, active pedagogy, practical, work-study and mobility experiences.
- Students having an understanding the purpose, structure and processes of curriculum, their responsibilities for learning, and how their progress will be assessed.
- Formal academic curriculum linked to noncourse-based opportunities and extracurricular activities (ex: orientation, developmental academic advising, leadership programs and activities.

D. Gender Equity and other biases Principles

- Number of curricula and programs that are developed and reviewed considering gender perspective.
- Number of females members of Curriculum Committee.
- An institutional policy regarding gender equity and other biases exist and is used.
- Learning programs and materials complies with equality law and regulations.
- Percentage of representations (examples, visual, career choices, etc.) that are gender and other biases free in curricula, programs and teaching materials.
- Number of programs and courses teaching gender-relevant contents.
- Percentage of Curricula and Programs at selected HEIs that are free of biases.

E. Other important considerations
➢ Tracking of student progress and completion rate throughout the curriculum (Able to enroll in required and elected courses).
➢ Adequate number of students to make the program cost-efficient.
➢ Percentage of dropout or failure rates in the program.
➢ Percentage of graduates working in their field of study upon graduation.

5.2  Curriculum Implementation

5.2.1 Process for submitting changes to curriculum at the undergraduate level

When HEI’s and their schools and departments are implementing new curricula or reviewing existing one, they have to follow a process through an institutional structure. In the following section, we will examine a process and the various steps that are required to implement curricula that should improve the learner’s educational experience. We will outline a process that could be adapted to the specificity and the academic structure of Mongolia’s HEI’s.

An idea or suggestion for curriculum or course modification, or for new courses or programs, can be originated by anyone, be it student, faculty member, staff member or administrator. This policy provides guidance on the process for changes and additions with respect to academic programs and outlines the roles of administrators and committees at the college and university levels within this process.

A. New Programs

Let us begin by examining when departments and/or schools are introducing new programs to be submitted for approval within HEI’s:

5.2.2  Process for submitting changes to curriculum at the undergraduate level.
A new program shall begin with the submission of a detailed concept paper, as defined by the institution and the appropriate academic structure and the vice-president’s office for Academic Affairs. The concept paper will serve as the basis from which a full proposal will be developed later.
If the concept paper is initiated by the department/school, the concept paper shall be forwarded to the institution’s curriculum committee or council through the school or the department. The curriculum committee will review the concept paper and comment. The reviews and comments are sent to the department chair and school dean who will determine further action.

If the dean or the director has initiated the concept paper, it will be forwarded directly to the committee or council. If the concept paper involves another college(s), the concept paper is forwarded to the other college dean or director for review that may include a review by that college, and letter of support.

The provost or the academic vice president will notify the concept paper proposer of the decision whether or not to move the concept paper to a full proposal, the next phase of program development.

1. Full Program Proposal

Once approved by the department curriculum committee and the faculty, the department head will forward the recommendations and along with the full program proposal to the curriculum committee. The committee will forward its recommendations to the dean and the initiating department head. After receiving a confirming recommendation from the department head, the curriculum committee, and the college faculty, the dean will forward all recommendations for the program to the vice-president academic or the Provost. The dean's recommendation shall in all cases be accompanied by supporting documentation concerning:

- The need for the proposed curriculum;
- Supporting statements from the deans and curriculum committees of any other college which would be involved in the proposal's implementation;
- Budgetary implications of the proposal;
- Implications of the proposal for any support services not covered in the above (library, Space Committee, academic services and computing);
- Other information as part of the requirements of the institution.
B. Significant Course Modifications, New Courses, and Special Designations

This portion of the policy include proposals for new courses, significant course modifications, or courses proposed for special designation will be submitted to the department curriculum committee, department faculty, and the department head.

A significant modification to an existing course is one that is characterized by any of the following:

- the proposed modification affects other departments or colleges;
- the proposed modification reflects a change in status, e.g., credit hour, contact hours, prerequisites, elimination;
- the proposed modification includes a change in the mode of delivery for all sections of the course wherein the change in mode has a significant impact on the students.

For all course proposals defined above (B), the department head will forward department approved proposals to the curriculum committee. After review and deliberation, the CCC will forward its recommendation regarding the proposed course to the dean. If the course does not affect another college or students outside the college in which the course will be offered, once a course modification is approved by the dean, the dean will ensure the appropriate dissemination of the course information.

If the course proposal affects another college or students outside the college in which the course will be offered, the dean of the college proposing the course will forward the proposal to the deans of the affected colleges. Proposal recommendations from deans will be forwarded to the provost for approval and further action. The recommendation from the dean of the college proposing the course shall be accompanied by supporting documentation concerning the need for and the budgetary requirements of the proposal. Once a course modification
has a final approval, the dean from the college proposing the course will ensure the appropriate dissemination of the course information.

C. Minor Course Modifications

Proposals for such course modifications will be submitted to the department curriculum committee, department faculty, and the department head. For minor modifications, the department head is the final approval agency. Notification of any action is sent to the dean.

5.2.3 Proposed structure and composition of University Curriculum Committees

The University Curriculum Committee (UCC) shall be composed of:

- the provost or vice-president academic as chair;
- a representative from among the academic deans;
- a representative elected at large by the Academic Senate or Council;
- a representative from the student’s association;
- a representative from the Faculty Association;

Each such elected representative shall be a voting member of the curriculum committee(s) of that college. Terms of these representatives shall be for three years, with the terms staggered so that approximately one-third shall expire each year. The student association’s representative term might differ from other members due to the fact that they could in year 3 of a four year program.

Roles and functions of the UCC shall be to:

- Study, from an university-wide perspective, curricular proposals from constituent elements of the university;
- Assure maintenance of appropriate university relationships with regard to curriculum matters;
- Assure that existing curricula are periodically reviewed and updated;
- Ensure the establishment of a committee that will monitor, review, and assess on an on-going basis the general education curriculum of the university;
• Study the relation of the proposed program to the current long-range plan of the university and the college(s) involved;
• Ensure the establishment of a committee that will oversee, facilitate, and review on an on-going basis the writing curriculum of the university;
• Make available to all academic units of the university the procedures for submission of proposals to be reviewed in the following academic year.

5.2.4 The Graduate Council

The Graduate Council is a standing subcommittee of the Academic Senate. The Graduate Council shall be composed of:

• One faculty member with experience in graduate education from each college of the university, to be elected by his or her faculty constituents;
• The dean of graduate studies;
• A duly elected graduate student representative;
• The provost or academic vice-president as chair.

Each college representative shall be a voting member of the curriculum committee or committees of that college that deal with graduate education. Terms of representatives, excluding the graduate student representative, shall be for three years, with the terms staggered so that approximately one-third shall expire each year. The graduate student representative shall serve for a term of one year. Faculty representatives may be re-elected.

Roles and Functions of the Graduate Council

The Graduate Council shall oversee graduate education and foster the development and maintenance of high quality graduate education curricula. The Graduate Council will formulate and recommend policy pertaining to graduate education, evaluate policy proposals, and monitor the implementation of such policies and procedures.

In pursuance of these functions, the Graduate Council shall:
• Study graduate curricular proposals from a university-wide perspective, maintaining appropriate university-wide relationships with regards to curriculum;
• Make proposals to the Academic Senate for graduate curriculum approval or discontinuance;
• Monitor periodic review of existing graduate curricula;
• Make proposals to the Academic Senate or Council for policy additions or modifications pertaining to graduate education.

These principles can be applied and adapted to HEI’s, while keeping in perspective the titles and the academic structure can be different. What is suggested is a simple, precise and specific process with roles and responsibilities for the institutions to adapt to their particular context. It is important to remember that the ultimate rationale for curriculum structure and mechanisms in HEI’s is to offer a quality, pertinent and timely education to students during their educational journey at Mongolian institutions.

6. The Next Steps and Conclusion

The overall goal of this module is to enable academic administrators of selected HEI’s to review the processes, structures and procedures presently in place at their institutions and to adapt these to their context. Eventually, these principles and suggestions would be shared with all Mongolian’s institutions in order for these institutions to consolidate their structures and adapt it to their specificity.

Following the conclusion of this workshop, participants are asked to return to their respective institution and to implement the models and the principles that were shared during the workshop. A second phase of this workshop will be held in March 2016, where you will participate and report back to the group regarding the challenges, successes and results of the implementation strategies at your institution. The following questions will be asked to the participants of the second workshop:
Which changes, additions and alterations did you have to make on the proposed model and principles presented in the October workshop?

Were these changes appropriate to the specific context of your institution?

How did you proceed to implement the proposed curriculum model?

What were the challenges that you faced in the implementation of the suggested model?

Was your present institutional structure regarding roles and functions of the curriculum development and review in line with the proposed implementation strategy? What changes did you have to make?

How do you intend to monitor, review and evaluate the curriculum at your institution in the future?

Any recommendations on how the proposed models and implementation process could be communicated and eventually adopted by Mongolian’s higher education institutions.

In concluding, we want to reiterate the fact that curriculum is central to the success and achievement of present and future students attending HEI’s in Mongolia. There is a need to pay particular attention and invest the appropriate resources to this important institutional activity.

Curriculum evolution and change should help HEI’s to adapt to society’s needs and aspirations in regards to the role of higher education. As institutions are challenged to respond adequately to the importance of preparing students to be “long life learners” and to prepare them for the knowledge based society of tomorrow while responding to the requirements of the employers for a well prepared workforce, what is learned will continue to be crucial to the success of universities. Moving from a teacher-centered approach to the learner-centered approach with problem-solving activities and “real life” situations will contribute to sustainable learning. While curriculum is not an end in itself, its importance can’t be downgraded. By responding to the expectations of society and its various constituents, HEI’s will enhanced its accountability and its pertinence.
Curriculum has been defined as an academic plan that is developed by institutions keeping in mind the social, internal and external contexts. The model of curriculum proposed in this module and a pilot project provides an organized framework for considering curricular issues at the course, program and university-wide levels and helps faculty members and administrators design, monitor and evaluate academic plans effectively. The proposed model acknowledges that academic plans are developed in specific educational environments subject to internal and external influences that affect the elements of the plan. Curriculum development is a complex process of constructing a learning plan by making a series of decisions. It constitutes of a continued process of adjustments and renewed steps where the participation of faculty members and administrators are sharing ideas and solving problems to create a renewed process to teach and learn. Faculty members and administrators are then able to select strategies and processes that will optimize their chances for academic success at all levels of their institutions. The ideas that have been shared should stimulate discussions and exchanges that might expand current thinking and improve how Mongolian students are preparing for the future.

References


Various websites were also consulted on Curriculum Development, Design and Evaluation in all regions of the globe.