CETYS University System.
Vice President of Academic Affairs
Results on the learning outcomes of the CETYS University System.
Mexicali, B.C. September 26, 2007.

Introduction.
Due to the WASC accreditation process and before the need to evaluate its educational effectiveness, CETYS University has set forth on defining learning outcomes at all the levels of its educational process. Thanks to the Academic Reform initiated with the undergraduate academic programs of 2004, this work started to be developed on the **level of the standardized syllabus.** Nonetheless, there is the need to establish them at the **institutional level** and at the **level of academic programs** to facilitate the assessment, its evaluation, assurance, and improvement. Besides, this task must be included in the graduate programs.

It is understood by institutional learning outcomes the knowledge, ability, or behavior that **every CETYS student** must possess at the end of his academic program, be it an undergraduate or graduate level. On the other hand, the learning outcome of an academic program indicates the knowledge, abilities, and behavior that **every graduate of an undergraduate or graduate program,** in particular, must have at the end of such program. These learning outcomes will specify, for example, what a graduate from a Bachelor's degree in Marketing must know, know how to apply, and to know how to be.
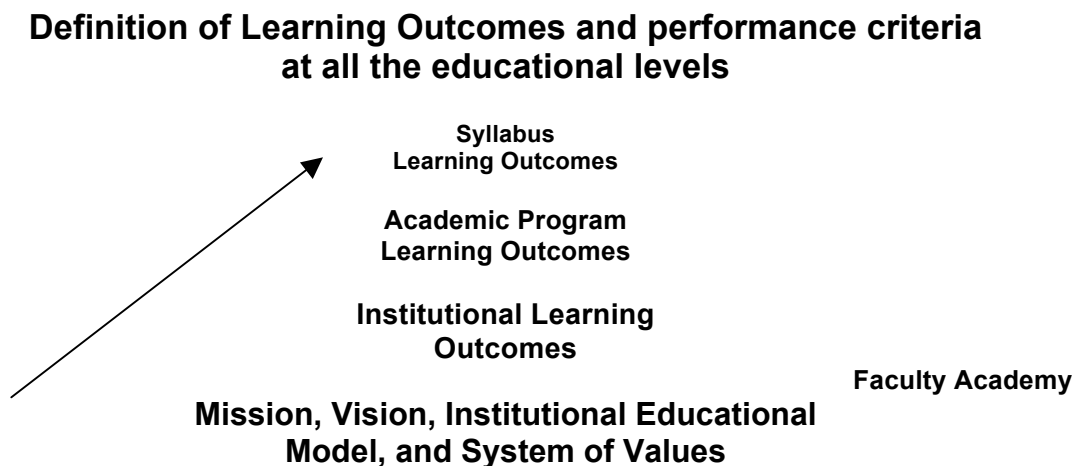
Definition of Learning Outcomes and performance criteria at all the educational levels

Syllabus
Learning Outcomes

Academic Program
Learning Outcomes

Institutional Learning
Outcomes

Faculty Academy

Mission, Vision, Institutional Educational
Model, and System of Values

Fig. 1: Definition of learning outcomes

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

The CETYS' faculty is the one that must assume a leadership on defining these learning outcomes, but they must consider the employers' opinions, the organizations, and professional associations as well as the accrediting companies of national and international programs. The reference basis for the formulation of these learning outcomes is made out of: the Mission, the Vision of the 2010 Plan, the Institutional Educational Model, and the values that the CETYS University System promotes.

For the definition of these learning outcomes and its subsequent assessment and evaluation, it is required that the faculty of the CETYS System gets **organized in academic working groups or academies** around the academic programs and of the great institutional intentions. Besides adding the full-time faculty that is responsible of the operation of an academic program, they should also include that part-time faculty that possesses a recognized **expertise** in the program areas. These academies should always have the feasible representation of the three Campi of the CETYS System. The responsible ones are the Deans of the schools and colleges for these groups to get integrated, have them assigned the needed resources to operate properly, and to supervise the work they are carrying out.

Referring to figure 2, the learning outcomes and the faculty are the key pieces to carry out the assessment, to do an evaluation of the learning achieved, identify areas of opportunities, and to make the needed steps to improve the student's learning, the faculty pedagogies, and the general operation of CETYS. For the WASC project, this summarizes the critical activities of the educational effectiveness study of CETYS.

The assessment cycle in the CETYS University System

2. Gather evidence on the achieved learning   ⟶   **3. Interpret evidence of the achieved learning**

↑ ↓

1. Identification of Institutional Learning Outcomes and the academic program   ⟵   **4. Implement the needed changes to improve learning**
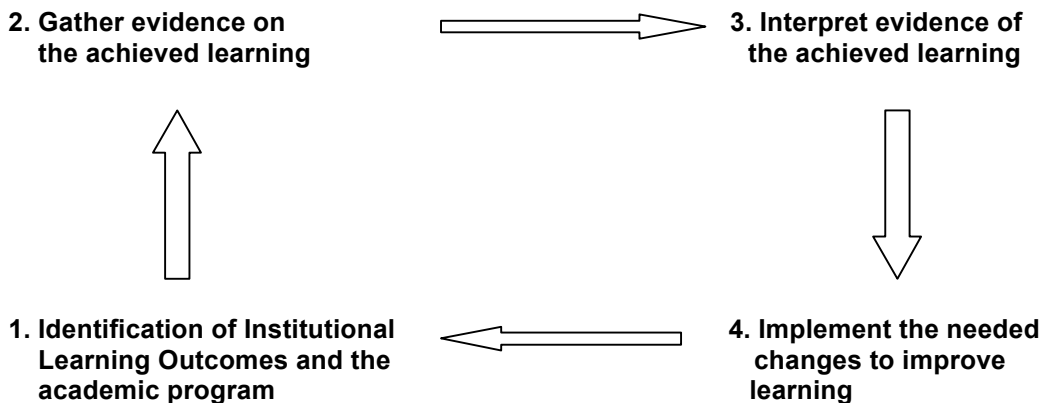
Fig. 2: To measure learning, we have to define it first

The Vice President of Academic Affairs, through its colleges, schools, curricula development, planning and institutional effectiveness, and a small group of social and human faculty put forward the task to define Institutional Learning Outcomes (ILOS).

The balance of this document describes the process that was followed by this group since the end of August 2007, to the final days of the month of September 2007, to reach the learning outcomes that are shown in chart 1. We also show the agreements reached by the group for its popularization among the CETYS System academy.

Definition of the institutional learning outcomes (ILOS)
The ILOS are all the knowledge, abilities, and behaviors (attitudes/values) that any CETYS University graduate, regardless of the academic program studied, should have learned at the end of his studies. The ILOS are derived fundamentally from the 4 pedagogical principles and the 4 nuances of the Institutional Educational Model (IED):

- **Learn to learn**
- **Learn to coexist**
- **Learn to do**
- **Learn to be and be well**
- **Continuous improvement**
- **Entrepreneur spirit**
- **Social and professional linkage with the community**
- **Internationalization**

But they also need to be influenced by the Institutional System of Values and the 2010 Plan (Mission and Vision) as indicated in figure 1. Chart 1 summarizes these learning outcomes, its performance criteria, and the assessment instruments.

Chart 1: Institutional learning outcomes.			
No.	**Learning outcome and performance criterion**	**Assessment instruments or tools**	**Observations related to the evidence**
1	**Clear and effective communication:** at the end of the academic program, the student will be able to express his ideas clearly and with an appropriate language, in a verbal, written, and visual way in Spanish.	Institutional Rubric for presentations. Institutional Rubric for writing.	As an evidence of the achieved learning, a sample of stratified presentations and written works will be compiled (project reports, essay, research articles, etc.) from undergraduate and graduate levels that will be evaluated based on rubric and according to the annual assessment plan.
2	**Continuous learning (learning to learn, continuous improvement, and entrepreneur spirit):** at the end of the academic program, the student will be able to look for and analyze information in an independent way and as a team that would allow him to identity opportunities and solve	Institutional Rubric to evaluate research projects and Institutional Rubric to evaluate application projects. Instrument that allows compiling the point of view of employers, or companies that support the students in the	As evidence of the achieved learning, a sample of stratified research reports and of application project reports from undergraduate and graduate levels will be evaluated based on rubrics and on the annual assessment plan. Point of view of the employers, registered in the applied documents.

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

No.	Learning outcome and performance criterion	Assessment instruments or tools	Observations related to the evidence
	problems.	internships.	
3	**Critical thinking and values (learn to be and to coexist):** at the end of the academic program, the student will have developed and will demonstrate a critical and experienced thinking in a framework of the values of CETYS; this will be reflected in the student world and its commitment with the social development and the environment.	Institutional Rubric to evaluate critical thinking. Instruments that allow us to diagnose if the values are being lived (role simulation, focus groups, and case studies).	As evidence of the achieved learning, a sample of stratified essays, and solutions from cases and problems will be compiled from the undergraduate and graduate levels that will be evaluated based on rubrics and according to the annual assessment plan. Applied instruments to detect the experience of the values promoted by CETYS University.
No.	Learning outcome and performance criterion	Assessment instruments or tools	Observations related to the evidence
4	**Openness to cultural diversity (learn to coexist, internationalization):** at the end of the academic program, the student will show knowledge and tolerance to other cultures and will apply those skills to establish human relationships and will manifest respect to diversity.	Institutional Rubric that allows evaluating attitudes towards cultural diversity. Instruments (case and problem solutions by teams) that allow compiling evidence of the effective team work ability.	As evidence of the achieved learning, a sample of stratified essays, and solutions from cases and problems will be compiled from the undergraduate and graduate levels that will be evaluated based on conclusion and according to the annual assessment plan. Applied instruments to detect the openness and the respect to diversity.
5	**Clear and effective communication in English (exclusive for undergraduate programs):** at the end of the academic program, the student will be able to express his ideas clearly and with an appropriate language, in a verbal, written, and visual way in English.	Institutional Rubric for presentations in English. Institutional Rubric for English writing. Standardized English test and an establishment of an acceptable minimum grade.	As evidence of the achieved learning, a sample of stratified presentations and written essays (project reports, essay, research articles, etc.) from the undergraduate and graduate levels that will be evaluated based on rubrics and according to the annual assessment plan.

To arrive to these outcomes, the sequence of carried out activities is shown on Chart 2. It is important to point out that this group of ILOS is not comprehensive. It is only a starting point to initiate the learning outcome of the CETYS System. The important thing when making an assessment is how many learning outcomes will be subject to assess in an evaluation cycle; not so much how many must form the group of learning outcomes at the institutional level or academic program. Certainly in the reiterated execution of the assessment cycle shown in figure 2, new ILOS will be integrated and redefining some of the existing ones.

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

A very important outcome of this work is the translation of the Institutional Educational Model (IED) to a group of learning outcomes that are real, observable, and measurable; also to have a sufficiently wide definition, but at the same time they show the needed specificity so that all the faculty of CETYS can include them in their teaching practices and in the designs of the courses that will carry out the academies that are in the integration process.

Chart 2: Activities that took us to the definition of ILOS of CETYS University.			
Date of the meeting/event	Purpose	Decisions & results	Participants
Meeting on August 27, 2007 at the Mexicali Campus	To express the need to establish institutional learning outcomes and academic program with the purpose of the Educational Effectiveness Revision of CETYS, and to continue with the WASC accreditation process.	(1) Prepare Institutional Learning Outcomes taking into account the work already done for the definition of learning outcomes of the Axis of General Education (Axis 1) of the 2004 academic programs. (2) To convene the directors of the schools and colleges to prepare a first answer of ILOS. (3) The Director of Planning and Institutional Effectiveness would design a working methodology for such purpose.	The Vice President of Academic Affairs, the Director of Curricula Development, and the Director of Planning and Institutional Effectiveness.
Meeting on September 3, 2007 at the Medical Campus.	To formulate 5 to 7 ILOS with the use of the methodology proposed by the Director of Planning and Institutional Effectiveness.	(1)The methodology is discussed and approved. (2) By petition of the Director of Curricula Development, the work is divided and leaving the responsibility to this department and its teaching staff of the formulation of the ILOS based on –learning- of the Institutional Educational Model. The Directors of the Schools and Colleges the formulation of ILOS based on -Nuances – of Differentiation of the Educational Model. (3) The Director of Planning and Educational Effectiveness would formulate ILOS based on the elements of the Educational Model, and would integrate the proposals. (3) The delivery date for the proposal would be on September 6, 2007.	Dean of School of Business and Management, Operational Director of Graduate Programs, Dean of School of Engineering, Director of Curricula Development, and the Director of Planning and Institutional Effectiveness.
Proposal Integration: September 7, 2007.	Gather in one document the proposals from all the involved parties.	Document made up of 15 of the ILOS from all the participants.	Director of Planning and Institutional Effectiveness.

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

Date of the meeting/event	Purpose	Decisions & results	Participants
Meeting on September 26, 2007.	Integrate and come up with a definite list of Institutional Outcome Results (ILOS) and the communication and popularization strategies towards the CETYS System academy.	(1) We reached the Group of ILOS contained in Chart 2. (2) It was agreed that the ILO that corresponds to the English language control was an Academic Program Learning Outcome (APLO) for all the undergraduate programs. This means that it was not set up as an ILO because it did not include all the graduate program students. (3) To document the process followed for the ILOS' definition as evidence of the WASC accreditation process. (4) The Directors of Schools and Colleges would be the responsible ones to prepare the communication and popularization strategies of the ILOS towards the academy. (5) The ILOS would be published, as soon as possible, in the Web pages of the three Campi, and the Web page of the CETYS System. This as evidence of the WASC Accreditation process.	Dean of School of Business and Management, Operational Director of Graduate Programs, Dean of School of Engineering, Director of Curricula Development, and the Director of Planning and Institutional Effectiveness.

It is worth mentioning that the current group of ILOS does not represent the IED totality and that in a gradual way, like it has been pointed out, other learning outcomes will be added and the results will be refined.

Another important result of this work was to include the learning of the English language as a learning outcome of the academic program, being compulsory for all the undergraduate programs. This after considering the current nature of all the graduate programs, where the English language is not considered as an essential condition of the graduation profile of all the graduate students. This last part influenced the group not to have considered it as an institutional learning outcome.

The tasks that follow this activity have to do with the publication, communication, and popularization of ILOS towards the faculty of the CETYS System. From this it would follow the design of the assessment instruments and to specify learning products on which the assessment would take place. Next, we will have to do a curricula mapping at the undergraduate and graduate levels in such a way that the institutional expectation of the learning level that the students expect to reach be explicit, and the courses are placed where that learning would occur

or to experience the proper strengthening. To carry out these tasks it requires the leadership of the departments, colleges, and schools as well as the faculty academies.

Attached to this document (see attachment section) is the document that forms the ILOS, abbreviation for "Institutional Learning Outcomes" that carried out the participants of this task, and the work methodology that was used.

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

Attachments:

1. Integration of different proposals of Institutional Learning Outcomes (ILOS).

2. Working methodology followed by the formulation of the ILOS.

CETYS University
Vice President of Academic Affairs
Director of Planning and Institutional Effectiveness
Formulation of the Institutional Learning Outcomes
September 2007.

Introduction.
After three meetings have taken place with one or more of the following members of the Vice President of Academic Affairs: Marco Carrillo, Alberto Garate, Federico Sada, Miguel Salinas, and Mario Dipp; it is convenient to reach a final decision as far as which will be the institutional learning outcomes (ILOS). Is good to clarify that this is not a trivial decision and without major consequences; on the contrary, it requires of our attention and to reach a true consensus.

From the last meeting we had on September 3, 2007, at the President's meeting room, an agreement was reached: the engineering, graduate, and business and administration colleges gave proposals of learning outcomes related to the nuances, and that the Curricula Development Department would do the same based on the fundamental ways of learning of the institutional educational model.

Chart 1 summarizes the works already given by the departments mentioned, and they would be considered the raw material to take a final decision.

Chart 1: Proposals of Institutional Learning Outcomes				
Proposal by	**Learning Outcome and performance criterion**	**Assessment instruments or tools.**	**Observations related to the evidence**	**How this proposal was generated.**
Director of Curricula Development only considering the fundamental ways of learning of the Institutional Educational Model	**Clear and effective communication:** At the end of the academic program, the student <u>will be able to express</u> his ideas clearly and with an appropriate language in a verbal and written way in Spanish.	Institutional Rubric for the communication and presentation of ideas. Institutional Rubric for writing.	As evidence of the achieved learning, a significant sample of presentations and written essays (project reports, essay, research articles, etc.) from the undergraduate and graduate levels that will be evaluated based on rubrics and according to the annual assessment plan.	The foundation considered were the learning outcomes prepared for axis one, and the institutional nuances and the four fundamental ways of learning were verified. We tried to specify and summarize the results already prepared to facilitate the evaluation and the gathering of evidence. The persons that worked in joint collaboration were: Jose Luis Bonilla, Luis Linares, Alberto Garate y Cecilia Tagliapietra
	Continuous leaning through research (learning to learn): At the end of the academic program, the student will be able to prepare research projects and/or the application that allows him to know, propose, and transform its immediate reality.	Institutional Rubric to evaluate research projects and Institutional Rubric to evaluate application projects. Instrument that allows compiling the points of view of employers or companies that support the students in the internships.	As evidence of achieved learning, a sample of stratified research essays and application project reports from the undergraduate and graduate levels will be evaluated based on rubrics and according to the annual assessment plan.	
	Value qualities (learn to be): At the end of the academic program, the student <u>would have</u>	Institutional Rubric to evaluate the integration of the value system within a classroom	A stratified sample of applied instruments to faculty will be gathered (from the different areas and semesters), and to	

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

	developed a critical, reflexive, and coherent attitude with the values of the CETYS System; this will be reflected on his commitment with the social development and the environment.	and in the professional arena. Instruments that allow on gathering the points of view of the faculty and the employer surrounding the value integration in the workplace and in the classroom.	the different companies/businesses where the students work (not graduates) of the Institution.	
	(learn to coexist) At the end of the academic program, the student will show knowledge of the main cultural traits from other societies, and will be able to apply his skills to establish solid relationships on the working environment manifesting a clear respect to diversity, to human rights, and team work ability in multicultural surroundings.	Institutional Rubric that allows evaluating attitudes toward cultural diversity. Instruments that allow gathering evidence of the effective team work ability.	**Note:** this ILO lacks information regarding the nature of the evidence, and how it intends to gather such evidence.	
Proposal of the Director of Planning and Institutional Effectiveness	**Internationalization, learn to coexist, and learn to be and be well.** At the end of the academic program, the student of CETYS University will be able to show knowledge and tolerance towards other cultures, particularly those ones associated with the Baja California economy, and the capacity to respond appropriately in multicultural situations on carrying out his profession and his life in the community.	Instrument in the exam-survey format.	The assessment instrument could be a survey applied at the start, at the middle, or at the end of the academic program in such a way that the student's progress can be evaluated. The evidence would be the surveys already evaluated and the interpretation of the outcome. The application of the instrument would be done based on the Annual Assessment Plan.	To carry out this individual proposal, the ILOS from universities of the United States that had similar educational intentions as CETYS University were consulted. This proposal was prepared starting form these structures.
	Learning to learn and continuous improvement. At the end of the academic program, the student of CETYS University will show an unquestionable appreciation to continuous improvement and the skills associated with learning to learn. He	Institutional Rubrics to evaluate essays, cases, and research projects.	The assessment instrument could be to prepare an essay related to a new topic, or not related to the student where he uses search, stock up, and analysis techniques developing an original proposal. Instead of an essay it could be a case to be solved, or a research project. In any	

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

	will apply these skills for his personal development, keep being up to date on his profession field, and to solve problems on his daily life		case an institutional rubric will be used to measure and evaluate the students' learning. The evidence would be the essays, the project research reports, or the solutions to the case expressed with its respective evaluations. The application of the instruments would be made based on the Annual Assessment Plan.	
	Learning to learn and entrepreneur spirit. At the end of the academic program, the student of CETYS University will show an evident appreciation for life learning and the entrepreneur spirit. He will apply these abilities to the development and execution of personal and professional projects.	Institutional Rubrics to evaluate essays, cases, and research projects.	The assessment instrument could be to prepare an essay related to a new topic, or not related to the student where he uses search, stock up, and analysis techniques developing an original proposal. Instead of an essay it could be a case to be solved, or a research project. In any case, an institutional rubric will be used to measure and evaluate the students' learning. The evidence would be the essays or the solutions to the case expressed with its respective evaluations.	
	Social and professional link with his community and the environment. At the end of the academic program, the student of CETYS University will show a critical attitude, an evident commitment, and a specific knowledge related as to how he can contribute to his community's development and the environmental conservation.	Case of sustainable development and Institutional Rubric to evaluate the applying case.	The assessment instrument could be a case of sustainable development on which a rubric is performed to evaluate the solutions that measure in what degree the student shows knowledge and a critical thinking related to the development and environmental problems of his community, and how he identifies in what way he can contribute to solve them. The evidence would be the solutions already evaluated of the proposed case. The application of the instruments would be made based on the Annual Assessment Plan.	
	Internationalization and	Standardized test	The assessment	

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

	the control of the English language. At the end of the academic program, the student of CETYS University will show a fluency in the English language that allows him to communicate in a clear and effective way in situations of his personal and professional life.	of the control of the English language, and a minimum score from which we consider that the learning outcome has been achieved.	instruments in this case are a standardized test to measure fluency in the English language. It could be TOEFL or any other equivalent test, and to set a score goal that is consistent with the minimum level that our students are demanded to participate in the academic exchange programs. Besides this standardized test, we would have to use an institutional rubric to evaluate the student's verbal, visual, and written communication. The evidence would be the evaluated exams from the students and the already evaluated presentations and essays from the students. This ILO, as it is written, only applies to undergraduate students. The application of the instruments would be made based on the Annual Assessment Plan.	
Dean of School of Business and Management.	**Internationalization and the English language.** At the end of the academic program, the student of CETYS University will be able to hold a person-to-person conversation in English, by telephone, or by electronic means.	**Note:** No information was given on the matter.	**Note:** No information was given on the matter.	**Note:** No information was given on the matter.
	Internationalization and the English language. At the end of the academic program, the student of CETYS University will be able, in Spanish or English, to socialize with persons regardless of the nationality, race, color, or religion.	**Note:** No information was given on the matter.	**Note:** No information was given on the matter.	
	Social & entrepreneur linkage. At the end of the academic program, the CETYS graduate would	**Note:** No information was given on the matter.	**Note:** No information was given on the matter.	

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

	have waken the concern to help the persons that have the least.			
	Social & entrepreneur linkage. At the end of the academic program, the CETYS graduate would have acquired the sense of location to behave according to the norms and policies of a workplace.	**Note:** No information was given on the matter.	**Note:** No information was given on the matter.	
	Social & entrepreneur linkage. At the end of the academic program, the CETYS graduate would show willingness and initiative to collaborate, team work, and reliability on complying with his commitments.	**Note:** No information was given on the matter.	**Note:** No information was given on the matter.	
	Continuous improvement. At the end of the academic program, the CETYS graduate: Is not going to destroy to build, but is going to keep building over the existing foundation.	**Note:** No information was given on the matter.	**Note:** No information was given on the matter.	

The work still pending

As it was mentioned in the introduction, it is necessary that the people involved in this task have a meeting to analyze these proposals, and come up with a final group of ILOS. The final test must satisfy the criteria on the acronym S.M.A.R.T., and to have well defined the performance criteria, the learning outcome instruments, and the kind of evidence that will be obtained and protected. It is very important that all of us participate so that the outward final message is the same, and we don't generate confusion nor pejorative comments to the paternity of the ILOS's results. Please, let us not make more complex and prolonged this matter.
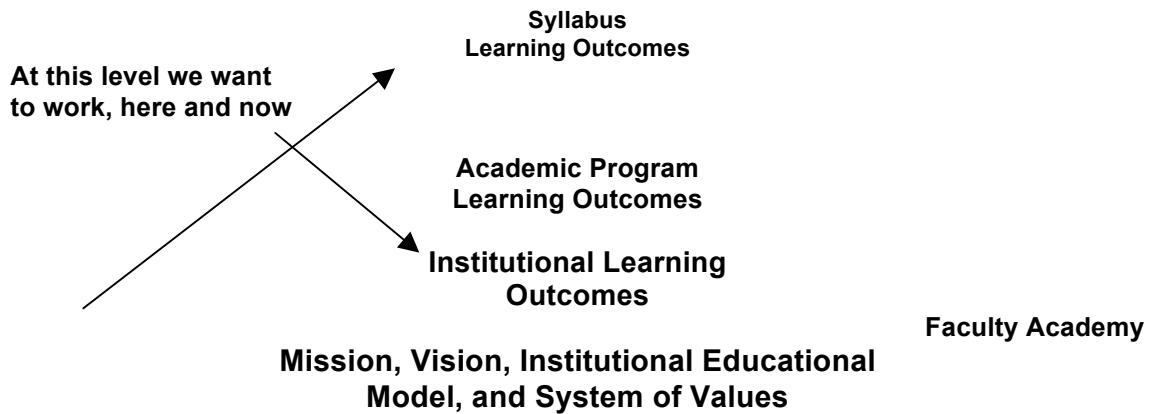
Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

Formulation of the Institutional Learning Outcomes (ILOS)

CETYS University

September 2007

Formulation of the Institutional Learning Outcomes (ILOS)

Definition of Learning Outcomes and performance criteria at all the educational levels

**Syllabus
Learning Outcomes**

**At this level we want
to work, here and now**

**Academic Program
Learning Outcomes**

**Institutional Learning
Outcomes**

Faculty Academy

**Mission, Vision, Institutional Educational
Model, and System of Values**

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

Formulation of the Institutional Learning Outcomes (ILOS)

Criteria:
S: Specific
M: Measurable (observable)
A: Acceptable
R: Realistic
T: targeted
Performance criterion: how much is good and how much is bad?

Between 5 and 7 institutional learning outcomes that are S.M.A.R. T.

Between 5 to 7 things that every CETYS graduate should have learned at the end of his academic program without mattering if he was an undergraduate or graduate student.

Institutional Educational Model (IEM)

Pedagogical principles:
Learning to learn
Learn to coexist
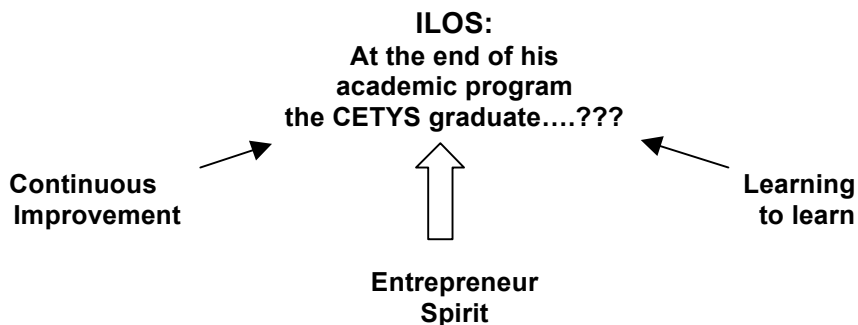**Learn to do**
Learn to be and be well

Starting from the IEM elements

Nuances of differentiation:
Internationalization
Continuous improvement
Entrepreneur spirit
Social and professional linkage with the community

Reach Conceptualization

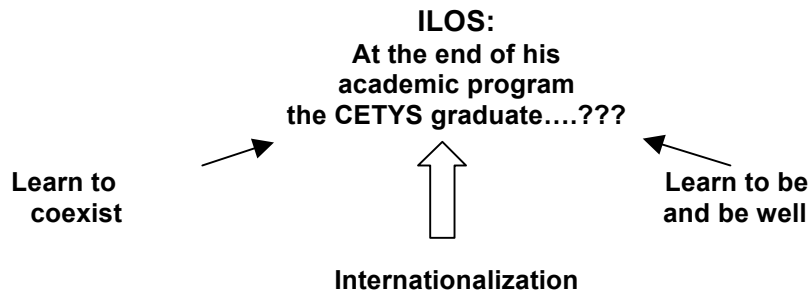# Formulation of the Institutional Learning Outcomes (ILOS)

As a possibility of methodology formulation to simplify the number of ILOS

ILOS:
At the end of his academic program the CETYS graduate....???

Continuous Improvement

Entrepreneur Spirit

Learning to learn

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness

Formulation of the Institutional Learning Outcomes (ILOS)

Another possibility from the same proposed lens

ILOS:
At the end of his academic program the CETYS graduate....???

Learn to coexist

Learn to be and be well

Internationalization

Formulation of the Institutional Learning Outcomes (ILOS)

Summarizing:
for each ILO we must determine:

Performance criterion

Statement

Assessment tools

Curricula Mapping

Evidence that learning has taken place

Prepared by: Hector Vargas, Director of Planning and Academic Effectiveness