**Computer Science and Information Department**

**Vision, Mission, Goals and Outcomes**

# Vision

Building an outstanding teaching environment that empowers the graduates in professional computing and contributes in development of an informatics knowledge society.

# Mission

Providing higher outstanding education to acquire graduates sufficient skills and ‎‎knowledge to communicate and work effectively in teamwork through scientific ‎environment ‎to compete in labor market .‎

# Program Learning Goals and Objectives

**General Objective:**

*The general objective of the program is to produce high quality graduate having analytical, interpersonal skills with entrepreneurial and computer-based problem-solving mindset.*

**Specific Objectives of the CSI Program**

1. Graduates should be able to deploy appropriate theory, practices, and tools for the specification, design, implementation, and evaluation of computer-based solutions.
2. Graduates should be able to deploy effectively information applications and systems, software development environments, and other tools commonly used in modern computing practice.
3. Enable graduates to competein the labor market.
4. Enhance graduates to work effectively as individuals with minimum guidance and as leaders or members of a team.
5. Encourage graduates to follow appropriate practices within a professional, legal, and ethical framework.
6. Prepare graduates to be capable of communication and work with others.
7. Enable graduates to know and understand the entire software development lifecycle, analyze and test computer systems.

**Specific Learning Goals of the CSI Program**

1. Good curriculum
2. Qualified teaching staff ‎
3. Modern learning resources ‎
4. Availability of required infrastructure
5. Attracting good students
6. Strict admission criteria
7. Offering training sessions
8. Providing consultations in the domains of Computer Science

**Relationship Between Goals and Objectives:**

1. *Learning Goal:* Prepare graduates, who are entering immediately into professions upon graduation, to be ‎capable of performing duties on an entry-level computing-related ‎position.‎

*Objectives:* Students will:

1. acquire the computer science knowledge required for graduate ‎studies;
2. understand the architecture, organization and programming of ‎modern computing systems‎; and
3. understand the mathematical foundations of computer science, algorithm efficiency ‎and computational complexity‎.

2. *Learning Goal:* Enable graduates to pursue graduate studies to successfully complete an advanced degree.‎

*Objectives:* Students will:

1. acquire the skills to design, evaluate, and/or implement research or scholarly projects;
2. learn how to carry out research effectively; and
3. enable to conduct advanced and creative research themselves‎

3. *Learning Goal:* Enhance graduates to work as individuals with minimum guidance and as leaders or members ‎of a team.‎

*Objectives:* Students will:

1. Communicate effectively with a range of audiences; and
2. Function effectively on multidisciplinary teams to accomplish a common goal.

4. *Learning Goal:* Encourage graduates to follow appropriate practices within a professional, legal, and ethical ‎framework.‎

*Objectives:* Students will:

1. be able to evaluate potential ethical dilemmas and apply decision-making techniques ‎to resolve them; and
2. Understand the professional, ethical, legal, security and social issues and responsibilities;

5. *Learning Goal:* Prepare graduates to recognize the need for and be capable of pursuing life-long learning.‎

*Objectives:* Students will:

1. be aware of the rapid rate of change of technology and ‎methodologies in computer science;
2. be familiar with ways to gain knowledge and understanding of new developments in ‎computer science and technology; and
3. be aware of alternatives for continuing education in computer science.‎

**NCAAA Outcomes**

# Knowledge

*Graduate have ability to recall, understand, and present information, including:*

Knowledge of facts.

Knowledge of concepts, principles and theories.

Knowledge of procedures .

***The levels of knowledge expected of Bachelor’s Degree graduates***

**Successful graduates should demonstrate:**

*A comprehensive, coherent and systematic body of knowledge in their field and the underlying principles and theories associated with it.*

*An awareness of relevant knowledge and theory in other related disciplines and professional fields.*

*Familiarity with the latest developments at the forefront of specializations within their field including current research resolution of significant professional issues.*

*An awareness of relevant conventions, regulations, and technical requirements and of how these* .

# Cognitive Skills

***Cognitive skill learning outcomes include the ability to:***

Apply conceptual understanding of concepts, principles, theories.

*Apply procedures involved in critical thinking and creative problem solving, both when required to do so, and when faced with unanticipated new situations*.

*Investigate issues and problems in a field of study using a range of sources and draw valid conclusions*

***The levels of cognitive skills expected of Bachelor’s Degree graduates***

***Successful graduates should be able to:***

*Undertake investigations, comprehend and evaluate new information, concepts, and evidence from a range of sources, and apply conclusions to a wide range of issues and problems with limited guidance* .

*Investigate relatively complex problems and recommend creative and innovative solutions taking account of relevant theoretical knowledge and practical experience, and the consequences of decisions made* .

*Apply these skills and insights in professional and academic contexts relevant to the field of study undertaken* .

*In professional programs, the graduates should not only be able to use routine procedures appropriately, but also identify situations requiring innovative solutions and draw on relevant theoretical and respond to practical insights.*

***Interpersonal Skills and Responsibility***

***Interpersonal skills and responsibility learning outcomes include both the ability and the predisposition to:***

*Take responsibility for their own learning and continuing personal and professional development*

*Work effectively in groups and exercise leadership when appropriate*

Act responsibly in personal and professional relationships

Act ethically and consistently with high moral standards in personal and public forums

***The levels of interpersonal skills and responsibility expected of Bachelor’s Degree graduates***

***Successful graduates should possess the :***

*Capacity to contribute to and facilitate constructive resolution of issues in group or team situations, whether in a leadership role or as a member of a group*

*Ability to exercise group leadership in undefined situations calling for innovative responses*

A*bility to take initiative in identifying issues requiring attention and in address them appropriately on an individual or team basis*

*Capacity and acceptance to take responsibility for their continued life-long learning*

*Ability to identify and use appropriate means of researching new information or techniques of analysis needed for completion of tasks*

*Ability to deal with ethical and professional issues involving values and moral judgments in ways that are sensitive to others and consistent with underlying basic values and relevant professional codes of practice .*

***Communication, Information Technology, and Numerical Skills***

***Communication, information technology, and numerical skills outcomes include the ability to:***

Communicate effectively in oral and written form

Use information and communications technology, and

*Use modern mathematical and statistical techniques*

***The levels of communication, information technology and numerical skills expected of Bachelor’s Degree graduates***

***Successful graduates should demonstrate:***

*Ability when investigating issues and problems to identify relevant statistical or mathematical techniques and apply them creatively in interpreting information and proposing solutions*

*Ability to communicate effectively both orally and in writing, selecting and using forms of presentation appropriate for differing issues and audiences*

*Use of the most appropriate information and communications technology in gathering, interpreting, and communicating information and ideas*

**Cognitive**

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| **Category** | **Example and Key Words** |
| **Knowledge**: Recall data or information. | **Examples**: Recite a policy. Quote prices from memory to a customer. Knows the safety rules.  **Key Words**: defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states. |
| **Comprehension**: Understand the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words. | **Examples**: Rewrites the principles of test writing. Explain in oneيs own words the steps for performing a complex task. Translates an equation into a computer spreadsheet.  **Key Words**: comprehends, converts, defends, distinguishes, estimates, explains, extends, generalizes, gives **Examples**, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates. |
| **Application**: Use a concept in a new situation or unprompted use of an abstraction. Applies what was learned in the classroom into novel situations in the work place. | **Examples**: Use a manual to calculate an employeeيs vacation time. Apply laws of statistics to evaluate the reliability of a written test.    **Key Words**: applies, changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses. |
| **Analysis**: Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences. | **Examples**: Troubleshoot a piece of equipment by using logical deduction. Recognize logical fallacies in reasoning. Gathers information from a department and selects the required tasks for training.  **Key Words**: analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates. |
| **Synthesis**: Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure. | **Examples**: Write a company operations or process manual. Design a machine to perform a specific task. Integrates training from several sources to solve a problem. Revises and process to improve the outcome.  **Key Words**: categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes. |
| **Evaluation**: Make judgments about the value of ideas or materials. | **Examples**: Select the most effective solution. Hire the most qualified candidate. Explain and justify a new budget.  **Key Words**: appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, summarizes, supports. |

# Affective: growth in feelings or emotional areas

*This domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes. The five major categories are listed from the simplest behavior to the most complex.*

**Affective Skills**

**Affective skills and responsibility, including the ability to:**

take responsibility for their own learning and continuing personal and

professional development.

work effectively in groups and exercise leadership when appropriate.

act responsibly in personal and professional relationships.

act ethically and consistently with high moral standards in personal and public forums.

**Communication is a sub-domain of affective skills including the ability to:**

communicate effectively in oral and written form.

use information and communications technology.

**Affective**

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| **Category** | **Example and Key Words** |
| **Receiving Phenomena**: Awareness, willingness to hear, selected attention. | **Examples**: Listen to others with respect. Listen for and remember the name of newly introduced people.  **Key Words**: asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits, erects, replies, uses. |
| **Responding to Phenomena**: Active participation on the part of the learners. Attends and reacts to a particular phenomenon.  Learning outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding (motivation). | **Examples**:  Participates in class discussions.  Gives a presentation. Questions new ideals, concepts, models, etc. in order to fully understand them. Know the safety rules and practices them.  **Key Words**: answers, assists, aids, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes. |
| **Valuing**: The worth or value a person attaches to a particular object, phenomenon, or behavior. This ranges from simple acceptance to the more complex state of commitment. Valuing is based on the internalization of a set of specified values, while clues to these values are expressed in the learnerيs overt behavior and are often identifiable. | **Examples**:  Demonstrates belief in the democratic process. Is sensitive towards individual and cultural differences (value diversity). Shows the ability to solve problems. Proposes a plan to social improvement and follows through with commitment. Informs management on matters that one feels strongly about.  **Key Words**: completes, demonstrates, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works. |
| **Organization**: Organizes values into priorities by contrasting different values, resolving conflicts between them, and creating an unique value system.  The emphasis is on comparing, relating, and synthesizing values. | **Examples**:  Recognizes the need for balance between freedom and responsible behavior. Accepts responsibility for oneيs behavior. Explains the role of systematic planning in solving problems. Accepts professional ethical standards. Creates a life plan in harmony with abilities, interests, and beliefs. Prioritizes time effectively to meet the needs of the organization, family, and self.  **Key Words**: adheres, alters, arranges, combines, compares, completes, defends, explains, formulates, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes. |
| **Internalizing values** (characterization): Has a value system that controls their behavior. The behavior is pervasive, consistent, predictable, and most importantly, characteristic of the learner. Instructional objectives are concerned with the student's general patterns of adjustment (personal, social, emotional). | **Examples**:  Shows self-reliance when working independently. Cooperates in group activities (displays teamwork). Uses an objective approach in problem solving.  Displays a professional commitment to ethical  practice on a daily basis. Revises judgments and changes behavior in light of new evidence. Values people for what they are, not how they look.  **Key Words**: acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, verifies. |

# Psychomotor

*Psychomotor skills include manual dexterity and the capacity to manage physical behavior with precision and skill. They include skilled use of equipment and other physical activity (that may be managed consciously or unconsciously), voice production and non-verbal communications.*

*Descriptions of the level of psychomotor skills expected of a bachelor’s degree graduate will vary widely for different fields of study according to the nature of the skills to be developed in different academic areas or professional fields*

***The levels of psychomotor skills expected of Bachelor’s Degree graduates***

***Successful graduates should demonstrate levels of achievement appropriate to their field of study:***

An ability to use sensory cues to guide motor activity

Skillful performance of motor activities

Coordination of a series of activities to achieve internal consistency

Achievement of high levels of motor skills performance naturally

**Psychomotor**

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| **Category** | **Example and Key Words** |
| **Perception**: The ability to use sensory cues to guide motor activity.  This ranges from sensory stimulation, through cue selection, to translation. | **Examples**:  Detects non-verbal communication cues. Estimate where a ball will land after it is thrown and then moving to the correct location to catch the ball. Adjusts heat of stove to correct temperature by smell and taste of food. Adjusts the height of the forks on a forklift by comparing where the forks are in relation to the pallet.  **Key Words**: chooses, describes, detects, differentiates, distinguishes, identifies, isolates, relates, selects. |
| **Set**: Readiness to act. It includes mental, physical, and emotional sets. These three sets are dispositions that predetermine a personيs response to different situations (sometimes called mindsets). | **Examples**:  Knows and acts upon a sequence of steps in a manufacturing process.  Recognize oneيs abilities and limitations. Shows desire to learn a new process (motivation). NOTE: This subdivision of Psychomotor is closely related with the "Responding to phenomena" subdivision of the Affective domain.  **Key Words**: begins, displays, explains, moves, proceeds, reacts, shows, states, volunteers. |
| **Guided Response**: The early stages in learning a complex skill that includes imitation and trial and error. Adequacy of performance is achieved by practicing. | **Examples**:  Performs a mathematical equation as demonstrated. Follows instructions to build a model. Responds hand-signals of instructor while learning to operate a forklift.  **Key Words**: copies, traces, follows, react, reproduce, responds |
| **Mechanism**: This is the intermediate stage in learning a complex skill. Learned responses have become habitual and the movements can be performed with some confidence and proficiency. | **Examples**:  Use a personal computer. Repair a leaking faucet. Drive a car.  **Key Words**: assembles, calibrates, constructs, dismantles, displays, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, organizes, sketches. |
| **Complex Overt Response**: The skillful performance of motor acts that involve complex movement patterns. Proficiency is indicated by a quick, accurate, and highly coordinated performance, requiring a minimum of energy. This category includes performing without hesitation, and automatic performance. For example, players are often utter sounds of satisfaction or expletives as soon as they hit a tennis ball or throw a football, because they can tell by the feel of the act what the result will produce. | **Examples**:  Maneuvers a car into a tight parallel parking spot. Operates a computer quickly and accurately. Displays competence while playing the piano.  **Key Words**: assembles, builds, calibrates, constructs, dismantles, displays, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, organizes, sketches.  NOTE: The Key Words are the same as Mechanism, but will have adverbs or adjectives that indicate that the performance is quicker, better, more accurate, etc. |
| **Adaptation**: Skills are well developed and the individual can modify movement patterns to fit special requirements. | **Examples**:  Responds effectively to unexpected experiences.  Modifies instruction to meet the needs of the learners. Perform a task with a machine that it was not originally intended to do (machine is not damaged and there is no danger in performing the new task).  **Key Words**: adapts, alters, changes, rearranges, reorganizes, revises, varies. |
| **Origination**: Creating new movement patterns to fit a particular situation or specific problem.  Learning outcomes emphasize creativity based upon highly developed skills. | **Examples**:  Constructs a new theory. Develops a new and comprehensive training programming. Creates a new gymnastic routine.  **Key Words**: arranges, builds, combines, composes, constructs, creates, designs, initiate, makes, originates. |

**ASIIN General Criteria for the Accreditation of**

**Bachelor’s degree program in**

**Computer Science & Information**

**Educational Objectives - Competences**

"High technology is computer science/informatics technology" – this sentence from a position assessment by the National Academy of Sciences of the USA shows that computer science/informatics plays an increasingly important role in practically all areas of the natural and engineering sciences, but also in economic, financial and social science areas and in medicine.

The educational objectives are outlined by the description of the learning outcomes, i.e. knowledge, skills and competences, required by the graduates for practicing their profession or for post-graduate studies. These outcomes vary in extent and intensity in accordance with the differing objectives of Bachelor’s.

**Requirements for Bachelor’s Degree of Computer Science**

Graduates have the ability to contribute on their own responsibility in cooperation with appropriate specialists to the adequate solution of problems in nearly all fields of application. They contribute to the solution of complex problems. They are able to build on the concepts, methods, procedures, techniques and tools of informatics.

On the basis of their Bachelor degree studies, graduates will have learned to react to the dynamically evolving challenges which result from technological development or from problems in the field of application. Computer scientists with a Bachelor’s degree are able to widen and deepen their competences by further training in their job or through academic studies such as consecutive Master degree programs or by additional studies in other fields.

**Learning Outcomes**

Computer scientists with a Bachelor’s degree have acquired a fundamental understanding of central concepts and methods of their discipline; they are informed about important current developments of their field of study; they are able to integrate their knowledge and competences in a wider context.

1. **Specialist Competences**

*The* ***following learning outcomes*** *(knowledge, skills or competences) are typical of a* ***Bachelor's degree in computer scienc****e:*

1. Computer scientists with a Bachelor’s degree have acquired a fundamental understanding of central concepts and methods of their discipline; they are informed about important current developments of their field of study; they are able to integrate their knowledge and competences in a wider context.
2. They command the scientific foundations necessary for informatics, in particular the mathematical, logical, statistical, and physical tools.
3. They understand central notions and conceptions of informatics, such as "algorithm" and "data processor", in an abstract form which is not dependent on actual technical realization.
4. They are able to assess the possibilities and constraints of algorithmic operations.
5. They are in a position to think in abstract models, and they have mastered constructive approaches.
6. They are thoroughly familiar with the most important algorithms, data structures and problem-solving patterns, including central paradigms of programming. They possess a basic under-standing of the composition and functioning of computers and key informatics systems such as operating systems, database systems, and communication systems.
7. They understand the basic principles of complex informatics systems consistent with state-of-the-art technique, and they have first-hand experience of handling them adequately.
8. They have mastered the methods of modeling, construction, verifying and testing typically used in informatics; they are able to apply these methods to solving problems.
9. Graduates are familiar with important applications of informatics. They are able to develop solutions for practical problems using informatics techniques and evaluate them, having due regard to technical, ergonomic, economic, juridical, and social constraints.
10. **Social Competences**

***Graduates know the history of informatics:***

1. They are aware of juridical aspects of informatics and its effects on society.
2. They are aware of ethical questions and security problems connected with the application of information processing systems.
3. They possess key skills such as e.g. techniques of learning and working, the capacity for team-work and communicating, the ability to undertake literature research and to apply new media.
4. They are able to independently complement and deepen the knowledge acquired during their studies and to adapt to developments in the field.
5. They have experience of solving application problems in teams covering all phases of system development, from analysis of requirements, specification and implementation to testing.
6. They are able to reflect critically on their own contributions and explain them both to experts and to persons not acquainted with informatics, using sound arguments.
7. They are prepared to take on responsibility in technical as well as management roles. In particular, periods of practical training as an integral part of the curriculum help to develop the professional skills of graduates.
8. Ideally, they will have broadened their horizons by taking advantage of offers of mobility integrated in their study programs; they will have made use of opportunities to extend their language skills; they will be aware of and understand international and global developments in information technology and their possible effects on business and society.

**Program Learning Outcomes**

**A: Knowledge**

a1: Acquire knowledge of computing and ‎mathematics appropriate to the discipline including ‎simulation and modeling.‎

a2: Recognize the need for and an ability to engage in ‎continuing professional development.‎

a3: Understand of best practices and standards and ‎their application.‎

**B: Cognitive Skills**

b1: Analyze a problem to identify and define the ‎computing requirements appropriate to its solution.‎

b2: Design, implement, develop and evaluate ‎complicated computer-based system, process ‎component, or program to meet desired needs.‎

b3: Use and apply current technical concepts and ‎practices in the core information technologies of ‎human computer interaction, information ‎management, programming, networking, web ‎systems and technologies.‎

b4: Identify and analyze user needs and take them ‎into account in the selection, creation, evaluation ‎and adminstration of computer-based systems.‎

b5: Integrate IT-based solutions into the user ‎environment‏ ‏‎ effectively.‎

**C: Interpersonal Skills and Responsibility**

c1: Adhere professional, ethical, legal, security, and ‎social issues and their responsibilities.‎

c2: Analyze the local and global impact of computing ‎on individuals, organization, and society.‎ ‎

c3: Use current techniques, skills, and tools nessary ‎for computing practice.‎

**D: Communication, Information Technology and Numerical Skills**

d1: Function effectively on teams to accomplish a ‎common goal.‎

d2: Communicate effectively with a range of ‎audiences.‎

d3: Apply advanced numerical methods.‎

**E: Psychomotor Skills**

NA

**Relationship Between CSI Program Outcomes, ASIIN, and NCAAA:**

***Graduates will have:***

| **Computer Science & Information program outcomes** | | | **ASIIN** | **NCAAA** |
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| **a.** | **An ability to:** | |  | **knowledge** |
|  | 1. | ***Acquire knowledge of computing and ‎mathematics appropriate to the discipline ‎including ‎simulation and modeling.‎*** | **a** |
|  | 2. | ***Recognize the need for and an ability to engage in ‎continuing professional development.‎*** | **b** |
|  | 3. | ***Understand of best practices and standards and ‎their application.‎*** | **b, c, i** |
| **b.** | **An ability to:** | |  | **Cognitive** |
|  | 1. | ***Analyze a problem to identify and define the ‎computing requirements appropriate to its solution.‎*** | **h, i** |
|  | 2. | ***Design, implement, develop and evaluate ‎complicated computer-based system, ‎process ‎component, or program to meet desired needs.‎*** | **i, 6, 8** |
|  | 3. | ***Use and apply current technical concepts and ‎practices in the core information technologies ‎of ‎human computer interaction, information ‎management, programming, networking, ‎web ‎systems and technologies.‎*** | **g, h** |
|  | 4. | ***Identify and analyze user needs and take them ‎into account in the selection, creation, ‎evaluation ‎and adminstration of computer-based systems.‎*** | **f** |
|  | 5. | ***Integrate IT-based solutions into the user ‎environment‏ ‏‎ effectively.‎*** | **f** |
| **c.** | **An ability to:** | |  | **Responsibility** |
|  | 1. | ***Adhere professional, ethical, legal, security, and ‎social issues and their responsibilities.‎*** | **f, h** |
|  | 2. | ***Analyze the local and global impact of computing ‎on individuals, organization, and society.‎*** | **c, e** |
|  | 3. | ***Use current techniques, skills, and tools nessary ‎for computing practice.‎*** | **7** |
| **d.** | **An ability to:** | |  | **Communication** |
|  | 1. | ***Function effectively on teams to accomplish a ‎common goal.‎*** | **b, e, h** |
|  | 2. | ***Communicate effectively with a range of ‎audiences.‎*** | **b, d, e** |
|  | 3. | ***Apply advanced numerical methods.‎*** | **e, h** |

**Key performance indicators**

1. Overall rating of the quality of the program to students and courses .
2. The proportion of courses in which the students during the calendar year
3. The degree of overall evaluation of the program by self- residents from within the program .
4. Ratio of students to College members ( full-time or equivalent)
5. The proportion of College who hold doctorate qualifications validated
6. The percentage of students who completed the program successfully completed the first Year.
7. The proportion of graduates of the total admitted and enrolled in the program.
8. The opinion of the students in the quality and relevance of teaching methods .
9. The opinion of the College members in the quality and relevance of teaching methods
10. The opinion of independent evaluators in the quality and relevance of teaching methods
11. The proportion of graduates run through recruitment or register to graduate .
12. Satisfaction rate employers for graduates of the program.
13. The extent of absorption of the program of the variables affecting it .
14. The proportion of College members enrolled in training courses required by the program.
15. The rate and diversity of media and teaching strategies used by College members.
16. The number of hours of hands-on training provided by the program.
17. Appropriateness of teaching methods as evaluated by students
18. The number of courses offered to College members in the school year.
19. Statistical research , seminars and conferences for members of the College .
20. Participation rate of College members in seminars and meetings related to the latest developments in the specialty .
21. The proportion of College members who have qualified PhD who assume teaching in the program.
22. The number of students enrolled in the training courses
23. The rate of diversity in the methods of evaluation in the current school year
24. Questionnaires distributed to students , graduates and employers .
25. Responsiveness to students' opinions and suggestions in the evaluation of courses.
26. The extent of the response to the opinions and suggestions of graduates in the evaluation of the program.
27. The extent of the response to the views of employers and suggestions in the evaluation of program outputs