جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY
College of Dentistry | كلية طب الأسنان

Quality Handbook
College of Dentistry

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Introduction

About the college

The College of Dentistry is situated on the main campus of Imam Abdulrahman Bin Faisal University in Dammam, Saudi Arabia. It was established in year 2001- 2002 under the patronage of King Faisal University, Dammam through Royal Decree No. 7 / b / 11155 and dated 14/12/2001G corresponding to 10/10/1423H with the consent of the Custodian of the Two Holy Mosques. It is the first dental college in the Eastern Province and was the third dental educational institution in the Kingdom of Saudi Arabia at the time of its establishment. What makes the College of Dentistry unique is its state-of-the-art facilities and highly qualified faculty members. The college is part of the health cluster colleges of the university. Over these years, the college has added several clinics, laboratories, classrooms, and auditoriums to its campus. The college has received several accolades for its quality education and research programs. The faculty members come from diverse regions such as North America, Europe, Africa and Asia, and their expertise and experiences greatly benefit the students in their learning and professional development.

جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

كلية طب الأسنان
College of Dentistry

الرؤية

أن نتميز عالميًا في تعليم طب الأسنان والبحث العلمي وخدمة المجتمع.

Vision

To be recognized internationally for excellence in dental education, research and community service.

الرسالة

نلتزم برقي الكفاءة المهنية في صحة الفم والأسنان لبناء جيل متميز من أطباء الأسنان يلبي حاجة المجتمع وقادر على البحث واكتساب المعرفة.

Mission

To achieve outstanding professional quality in oral health by graduating dentists committed to serving the community and primed for lifelong learning and research.

Values

Integrity

Respect

Accountability

Empathy

Collaboration

Social Responsibility

Embracing Diversity

القيم

المصداقية

الاحترام

الإحساس بالمسؤولية

التعاطف

التعاون

المسؤولية المجتمعية

احترام التنوع

Program Goals

1. To ensure graduates will excel and lead the future of oral health.

2. To conduct research for the benefit of education, patient care   and scientific discovery.

3. To provide state of the art facilities for dental education and patient care.

4. To promote the oral health of the community at large.

Graduate Attributes

Safe Practitioner

Professional

Leader

Communicator

Lifelong learner

Advocate for Oral Health

خصائص الخريجين

ممارس صحي آمن

مهني محترف

قائد

متواصل فعال

متعلم مدى الحياة

ملتزم بالتوعية بصحة الفم والأسنان

Administrative Structure

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                                    Dean

        Admission        Disciplinary      Recruitment      College      External           Students Council
        Committee        Committee         Committee        Board        Advisory Board
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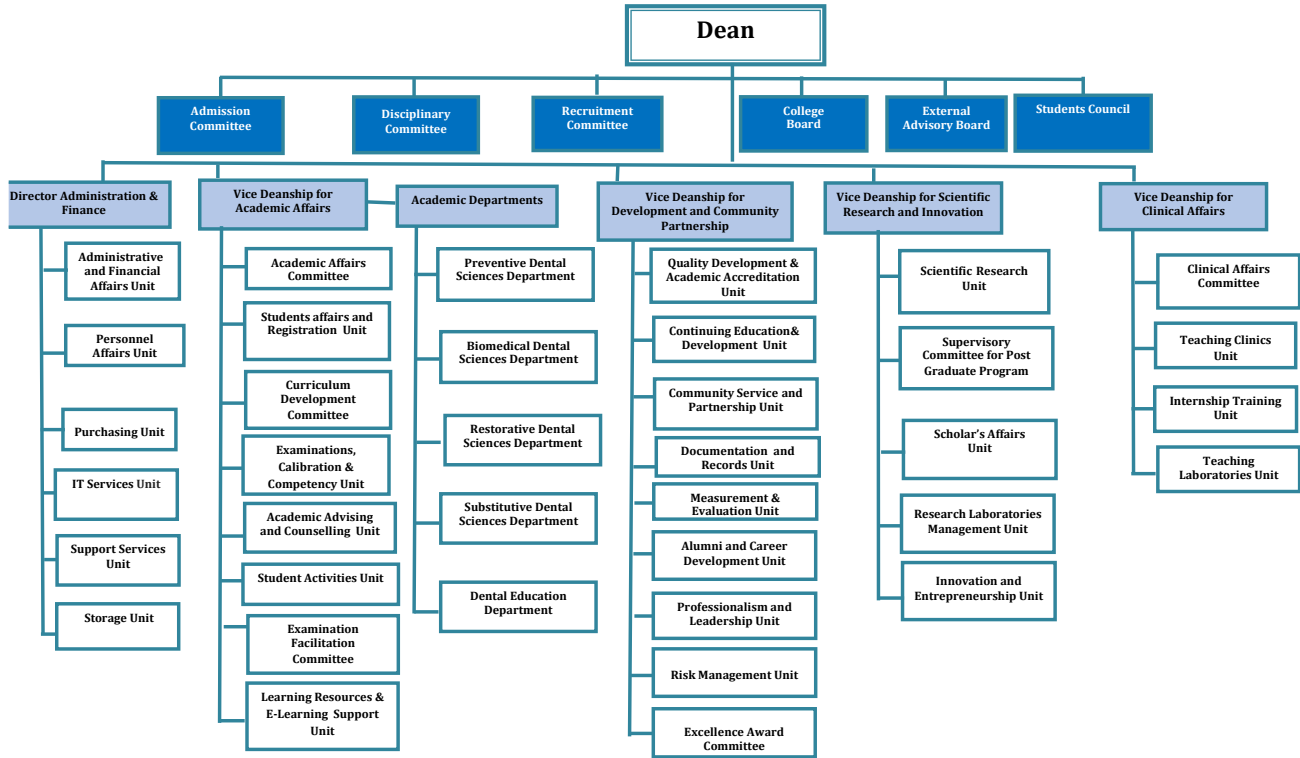| Director Administration & Finance	Vice Deanship for Academic Affairs	Academic Departments	Vice Deanship for Development and Community Partnership	Vice Deanship for Scientific Research and Innovation	Vice Deanship for Clinical Affairs
Administrative and Financial Affairs Unit	Academic Affairs Committee	Preventive Dental Sciences Department	Quality Development & Academic Accreditation Unit	Scientific Research Unit	Clinical Affairs Committee
Personnel Affairs Unit	Students affairs and Registration Unit	Biomedical Dental Sciences Department	Continuing Education& Development Unit	Supervisory Committee for Post Graduate Program	Teaching Clinics Unit
Purchasing Unit	Curriculum Development Committee	Restorative Dental Sciences Department	Community Service and Partnership Unit	Scholar's Affairs Unit	Internship Training Unit
IT Services Unit	Examinations, Calibration & Competency Unit	Substitutive Dental Sciences Department	Documentation and Records Unit	Research Laboratories Management Unit	Teaching Laboratories Unit
Support Services Unit	Academic Advising and Counselling Unit	Dental Education Department	Measurement & Evaluation Unit	Innovation and Entrepreneurship Unit	
Storage Unit	Student Activities Unit		Alumni and Career Development Unit		
	Examination Facilitation Committee		Professionalism and Leadership Unit		
	Learning Resources & E-Learning Support Unit		Risk Management Unit		
			Excellence Award Committee		

Figure 1: Organogram of COD

Program Quality Assurance Structure

The COD Quality assurance system is aligned with the Institutional Quality assurance system (IQAS). The Vice Deanship for Development and Community Partnership (VDDCP) is entrusted with the responsibility of carrying forward the quality assurance and improvement initiatives in the college in coordination with all departments.

Vice Deanship for Development & Community Partnership (VDD&CP)

The Vice Deanship for Development & Community Partnership (VDD&CP) plays a crucial role in providing leadership, guidance, and support to all departments of the College of Dentistry. One of the key responsibilities of VDD&CP is ensuring quality assurance and monitoring across the college. This includes developing and implementing quality assurance policies and procedures, conducting regular audits and evaluations, and ensuring compliance with accreditation standards. VDD&CP also works closely with faculty and staff to identify areas for improvement and implement strategies to enhance the quality of education and research at the college. Through these efforts, VDD&CP helps to ensure that the College of Dentistry delivers high-quality education and research programs that meet the needs of students, faculty, and the community.

These functions are accomplished through the eight units and one committee in the VDD&CP, as shown in the following organogram.
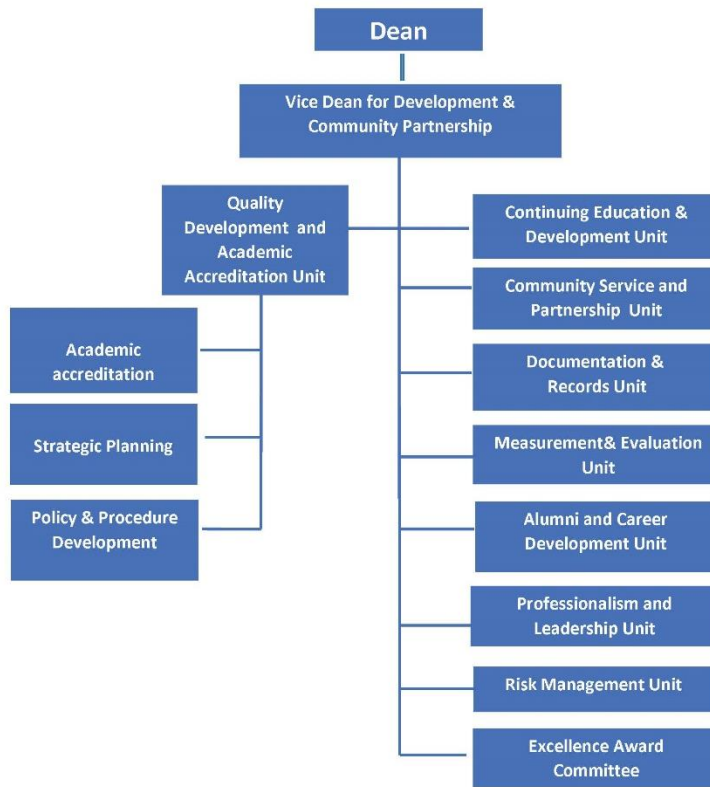
Vice Deanship for Development & Community Partnership

Dean

Vice Dean for Development & Community Partnership

Quality Development and Academic Accreditation Unit

- Academic accreditation
- Strategic Planning
- Policy & Procedure Development

- Continuing Education & Development Unit
- Community Service and Partnership Unit
- Documentation & Records Unit
- Measurement& Evaluation Unit
- Alumni and Career Development Unit
- Professionalism and Leadership Unit
- Risk Management Unit
- Excellence Award Committee

Figure 2: Organogram of VDD&CP

Structure and Functions of Vice Deanship For Development & Community Partnership Units And Committees

1. Quality Development and Academic Accreditation Unit

Its primary role is to develop, implement, and monitor quality assurance, policies, and procedures to enhance the academic standards of the COD. This unit is created at COD to develop and foster culture of quality in all spheres of operational activities from academics to research and clinical care provided by the College of Dentistry. The main goal of the unit is to prepare the College for national and international academic accreditation by meeting standards and requirements. This unit has the following three divisions to accomplish its tasks:

- **Academic accreditation Division**

The Academic Accreditation Unit is responsible for ensuring that academic programs within COD are of high quality and meet the standards set by external accreditation bodies and the stakeholders.

- **Strategic Planning Division**

The Strategic Planning Division is responsible for developing and implementing the strategic plan of COD. Its primary role is to ensure that the COD is working towards achieving its long-term goals and objectives. Some of the key responsibilities of this division include:

1). Developing the strategic plan

2). Monitoring progress towards achieving the goals and objectives outlined in the strategic plan.

3). Facilitating implementation of strategic initiatives designed to achieve the COD goals and objectives.

- **Policy and Procedure Development Division**

The unit is responsible for developing and implementing quality assurance policies and procedures that align with the institution's mission and goals. These policies and procedures might include guidelines for faculty, students and staff in all areas of academics, patient care, research and community outreach.

2. Continuing Education & Development Unit

To support the development and continuing professional education needs of all faculty members, students, alumni, staff, practicing dentists and allied sciences in the region in accordance with the rules and regulation of the COD. The scope of service can be divided into three parts:

1- Continuous Dental Education Courses

2- Faculty Development Courses

3- Training and Staff Development Courses

3. Community Service & Partnership Unit

The community service and Partnership unit (CS&PU) is established to provide highest standard of curative and preventive services to improve dental and oral health of the society. The unit engages students and faculty with the community through curricular and extra-curricular projects, providing health education and screening sessions.

4. Documentation and Records Unit

This unit is responsible for creating and maintaining accurate and up-to-date records of all aspects of the program, including student enrollment, course evaluations, faculty evaluation, faculty qualifications, and program evaluations. The Documentation and Records Unit is responsible for ensuring that all documentation related to the program is accurate, complete, and up to date. In addition, the Documentation and Records Unit is responsible for ensuring that all documentation related to the program meets regulatory and accreditation requirements.

5. Measurement & Evaluation Unit

The scope of this unit is to provide data to support decision making at COD. It acquires and analyzes stakeholders' feedback for program review and accreditation processes. The unit is responsible for monitoring the accuracy of data for the strategic plan and Key Performance Indicators (KPIs). The unit manages regular surveys as well as IAU online surveys (UDQUEST). Data are collected, analyzed and reports with executive summaries are generated and submitted to relevant owners/stakeholders for actions.

6. Alumni & Career Development Unit

The Alumni & Career Development Unit (ACDU) is responsible for fostering strong relationships between the COD and its alumni, as well as providing career development resources and support to current students. This includes organizing events and activities to engage alumni, such as reunions, networking events, and mentorship programs. The unit also collects and shares information about alumni achievements and career paths, which can be used to inspire and motivate current students. In addition, the unit seeks alumni's feedback and opinion through survey tools and encourages alumni to support their college in all aspects. The unit also collaborates with the Continuing Education & Development unit to facilitate the communications and invitations of the alumni for the applicable college events.

7. Professionalism and Leadership Unit

COD at IAU is the first institution to create a Professionalism and Leadership Unit among national and regional colleges and universities, promoting and inculcating professionalism and leadership attributes in the students, faculty and staff to further enhance quality of education, research, clinical care and efficiency at workplace. The Professionalism and Leadership Unit is responsible for providing support and resources to help faculty, staff and students develop the skills and attributes necessary to be successful dental professionals and leaders in the field. One of the main responsibilities of the Professionalism and Leadership Unit is to provide training and education on professional behavior and ethics. The unit may also offers opportunities for students to practice these skills in real-world settings, such as clinical rotations or community service projects.

8. Risk Management Unit

The Risk Management Unit is designed to improve safety of COD students, faculty, staff, patients', facility and equipments, and reduce risk by assuring a safe environment. The purpose of the Risk Management Unit is to reduce and control hazards and risks, help prevent accidents and injuries, and maintain safe conditions at the College of Dentistry. The scope of the Risk Management Unit encompasses patients, visitors, students, and staff—including medical staff. The Risk Management Plan addresses maintenance and improvement of patient safety in every department throughout the facility. The Unit identifies risk and adverse events through Occurrence Variance reporting, patient complaints and other data sources. The staff of the Risk Management Unit coordinates collection of internal and external data on potential risk and reports the analysis and investigated findings of the College's actual and potential risks to the administration and the respective department through VDD&CP.

9. Excellence Award Committee

This committee t is established to support COD's philosophy towards collegiality and encouragement of improving performance and conduct among faculty members, students and staff. The committee supervises and updates selection of award categories, their criteria, application, and nomination processing. The awards are celebrated at the end of the year annual college ceremony or during the Annual Dental Symposium. The committee ensures the transparency and fairness, according to regulations approved by the College Board, during the implementation and evaluation events. The awards include celebrating outstanding faulty members, students, and technical and administrative staff. In addition to excellence in their areas, the candidates are anonymously assessed by peers and evaluation panel based on their commitment to COD's fulfillment of its aspired reputation, goals and set targets.

Annual Reporting and Evaluation of VDD&CP Units

- The units will annually evaluate their performance and progress in terms of their stated duties, and responsibilities and report to the VDD&CP.
- A written report by the VDD&CP will be submitted to the College Dean, who may take it to the College Faculty Board for discussion and decision, as appropriate.

Membership of VDD&CP Units:

The membership of various units and committee shall be effective from the date of its issuance and will last for two years, after which the new unit members will be selected.

Alignment of COD Quality Assurance System with the Institution

Quality Assurance System at IAU promotes institutional quality culture among its stakeholders by developing an internal regulatory framework with clear and consistent procedures so that they show active commitment to improve quality at all levels. At IAU, both internal and external dimensions of quality assurance work together towards the attainment of academic accreditation. Specifically, the internal quality assurance self-regulates the academic environment with a structured process, whereas the external quality assurance promotes transparency & critical dialogue with stakeholders and society. The COD follows the principles of IAU quality assurance system. The quality assurance system adopted at IAU is described in the following figure 3:
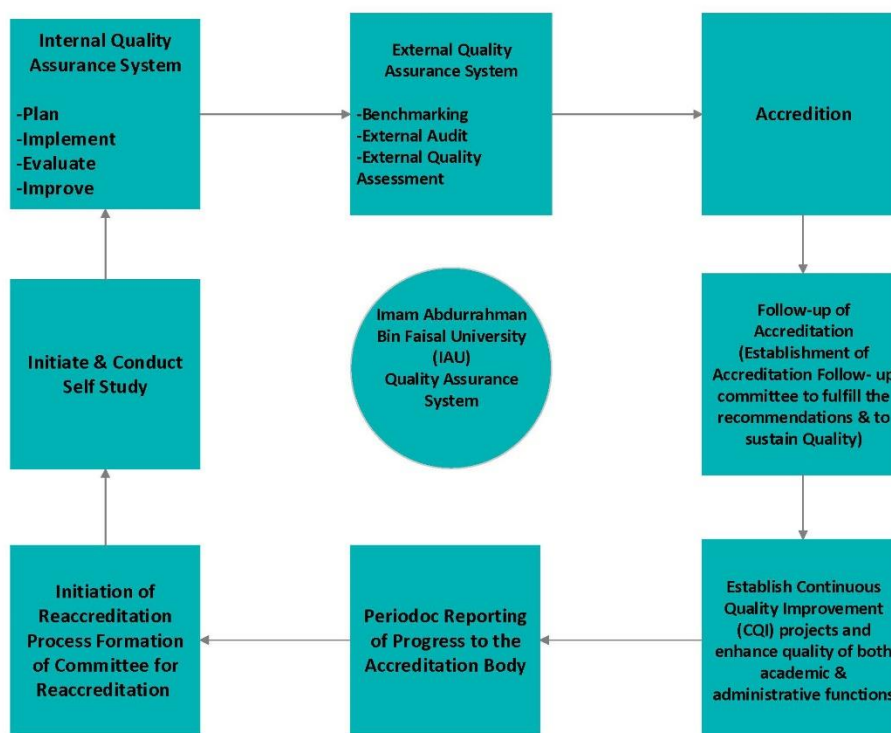

Figure 3: IAU Quality Assurance System

The College administration is dedicated to establishing an active quality assurance system that covers all aspects of the Bachelor of dentistry (BDS) program. The Vice Deanship for Development & Community Partnership (VDD&CP) leads this effort, with a mission to foster a culture of excellence and continuous improvement in practice quality by developing and implementing contemporary, flexible quality systems, models, standards, and tools that align with the College's strategic goals and objectives. To achieve this, standard practices are established, and feedback from internal and external stakeholders is gathered to enable proper monitoring, consistency, and intervention where needed. The College is committed to enriching the quality culture in all academic and administrative processes, guided by institutional regulations and policies outlined in (Guidelines for Monitoring Quality Improvements in Academic and Administrative Processes). The VDD&CP works in collaboration with the Deanship of Quality and Academic Accreditation (DQAA) at the University to ensure the highest standards of quality in education and research. The Interaction of VDD&CP with DQAA is depicted in the following figure 4:
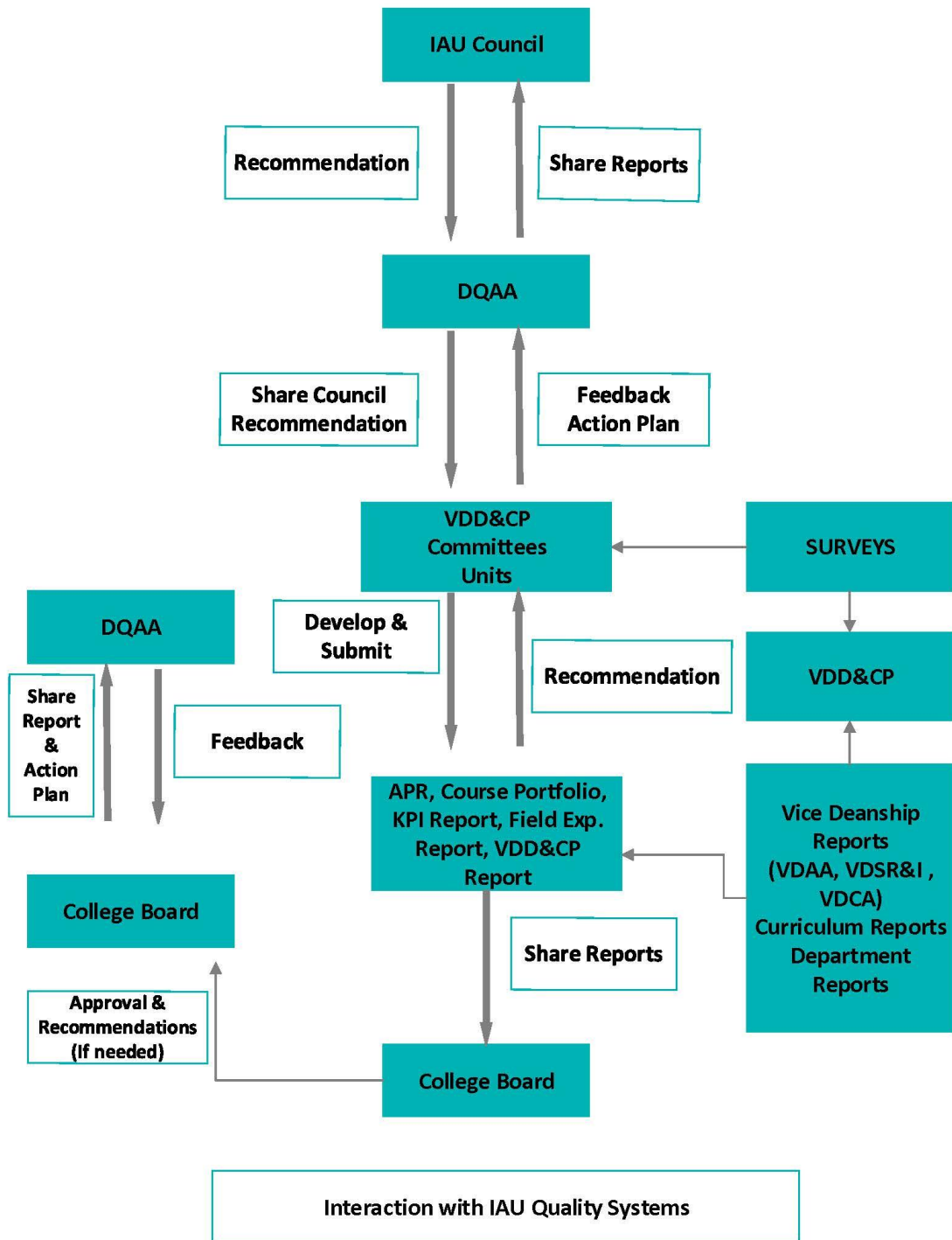
Figure 4: Interaction of VDD&CP with IAU Quality

Program Quality Assurance System

This manual outlines the general quality assurance framework in the COD at IAU including the planning, quality assurance system, and performance improvement strategies. The approach of COD to quality assurance is based on its Vision, Mission and Values statements which are aligned to the IAU's vision, mission, and values. The COD aims to ensure that its quality assurance system functions well and is delivered by competent people who are committed to integrating quality approaches into the university's systems and processes. The core of the annual self-assessment is aligned with the IAU's Quality Assurance Manual and based on the National Commission for Academic Accreditation and Assessment [NCAAA]'s Self-Study requirements. The Quality Procedures and strategies are annually reviewed and evolve in line with the principles of continuous improvement and guided by supervision from the Deanship of Quality & Academic Accreditation (DQAA) at IAU. Furthermore, COD uses both internal and external auditors to ensure that its systems are robust, and its work complies with the required NCAAA's & international accreditation standards.

The Quality Cycle

The Quality Cycle, at the core of our quality assurance strategy, is drawn from the principles of the 'Plan, Do, Check, Act' (PDCA) system. The purpose of the PDCA method lies in learning as quickly as possible whether an intervention works in a particular setting and to adjusting accordingly to increase the chances of delivering and sustaining the desired improvement. PDCAs allows for new learning, as it is identified, to be integrated into the educational process and its impact will be captured in the next iteration of the cycle rather than at some distant future point in the program (see Figure 5)
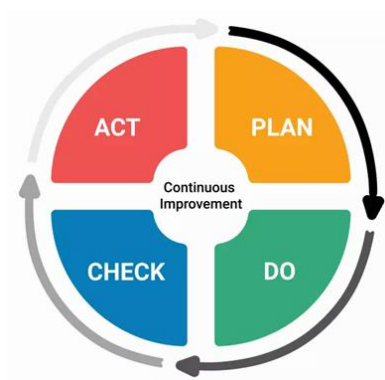

Figure 5: PDCA system

Quality Assurance System

The quality assurance system of the college focuses on the following core activities:

1. Quality Assurance focusing on Teaching and Learning
2. Quality Assurance of Students Assessment
3. Quality assurance focusing on teaching staff.
4. Quality assurance focusing on facilities and learning resources.
5. Quality assurance focusing on students support services.
6. Quality assurance focusing on research and community service

The results of monitoring and feedback acquisition are studied, and discussed in relevant units and committees, including the college board, and recommendations are received at VDD&CP. These are incorporated into the operational plan and translated into actions for program development and improvement, their implementation is monitored, evaluated and results are reported to close the quality loop. The COD quality assurance system is divided into two major parts:

1. Quality Assurance focusing on Teaching and Learning

Program Specification

Program specification's main objective is to provide platform for the planning, monitoring and improvement of the program by faculty members responsible for its delivery. It contains sufficient information to demonstrate that the program will meet the requirements of the Standards for Quality Assurance and Accreditation of Higher Education Programs and the NQF.

The program specification is prepared according to the NCAAA template. The specification includes general descriptive information about the BDS program, mission, goals, and program objectives, which are aligned with COD and IAU's mission and goals. It also contains the learning outcomes that should be acquired by the students and the methods of teaching and student assessment strategies (direct and indirect) for their achievement of learning outcomes in different domains of learning. Moreover, the program specification also includes plans for ongoing evaluation of its effectiveness and planning processes for improvement.

Course Specification

The course specification is prepared after approval of program specification and before a course is delivered for the first time. Nevertheless, it can be subjected to modification according to the major or minor comments provided by internal and external auditors. The purpose of course specification is to provide a clear roadmap for the course. Course specification includes the course identification and general information, objectives, description, and topics to be delivered to the students. It contains learning domains and Course learning outcomes (CLOs) matching with that of the programs and are keeping with the National Qualifications Framework (NQF) (figure 6). Furthermore, course specification includes teaching strategies and the methods of assessment of the students for each LOs. Course Directors are responsible for the preparation of the course specifications according to the NCAAA template in the light of the program specification. Course specification is used as a reference for preparation of the actual teaching and assessments to be conducted in the course.
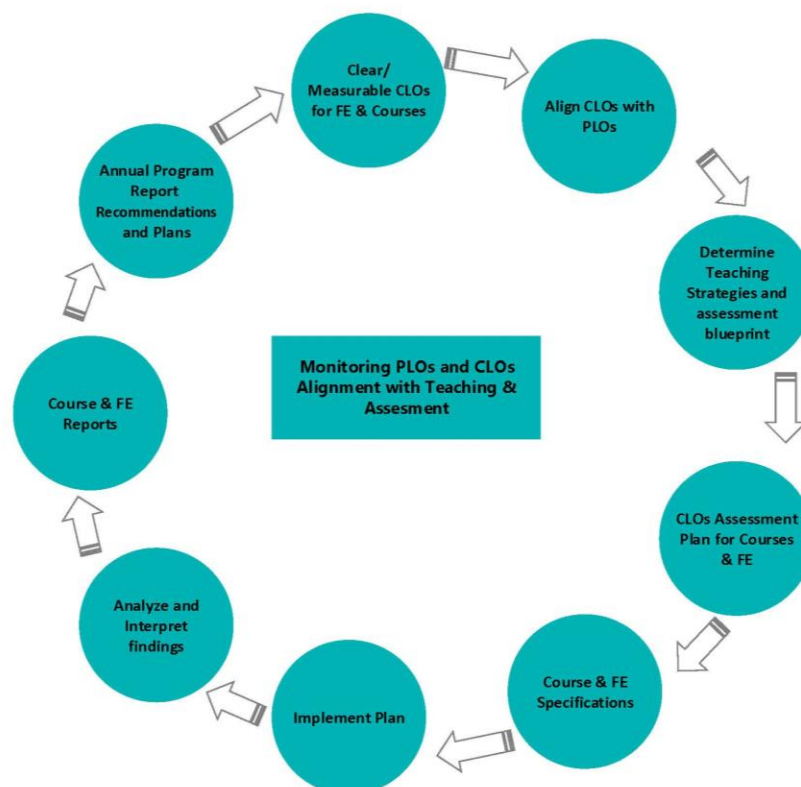

Figure 6: Monitoring and Alignment of CLOs and PLOs

Course Report

By end of each semester, course instructor should prepare course report according to the NCAAA template. The course report includes general information of the course and a summary of the analysis of students' grades, evaluation of the course by the students and any issues faced in the implementation of the course. It also includes the average of CLO's achieved by students compared with program ILOS target benchmark. Improvement plans are determined according to direct and indirect assessments and provided as an action plan for review before the course is offered again in the following academic year.

Annual program report

The annual report of the program is prepared after the completion of the first and the second semester of the academic year using the NCAAA template, which reports on how well the program was able to conduct its courses and achieve the desired program learning outcomes by providing details of the graduated class, , percentage of graduates employed in the government and private sectors, student achievement of the program learning outcomes and a report of students 'evaluation of the courses. It also provides an overview of the teaching and learning key performance indicators in comparison to the internal and external benchmarks. Based on the evaluation of performance indicators improvement plans are determined and provided as a guide to improve the teaching and assessment strategies in the program.

Field experience specification and reports

The field experience specification includes LOs required for the field of BDS program. The field experiences LOs is transformation of knowledge covered in advanced levels into practical skills. Field experience specifications and reports are prepared according to the NCAAA template. The field experiences are carried out in hospitals under the supervision of faculty and training site supervisors. The COD provides comprehensive guidelines and instructions for the field experience to supervisors and students. The field experience is evaluated by direct and indirect methods and the performance results are used in preparation of field experience report.

Course Portfolio (CP)

Course portfolio (CP) contains evidence for conducted course and used for consideration in the review of the program. Course portfolios provide broad knowledge about what have been done in the course in previous semesters. CP includes course outline, faculty office hours, course approval document, course specification, course report, copy of teaching materials, sample of assessment materials Item Analysis Report of the exam paper, full record of results for all assessments, report of course evaluation by the students, sample of student's work and internal auditing report for course specification and course coordinator response. Every course instructor submits the CP to the academic departments' internal auditor who submits it to the Quality development and accreditation unit at VDD&CP for auditing.

2. Quality Assurance of Students Assessment

All colleges attached with IAU have clear procedures to assure the assessment of students. Students are assessed using predefined criteria, regulations and procedures, which are applied consistently. There are clear procedures to ensure the quality of examinations. All students' assessment is carried out professionally at all times and takes account of the extensive knowledge that exists on testing and examination processes. Student assessment procedures are to:

- Be designed to measure the achievement of the intended learning outcomes and other program objectives.
- Be fit for purpose, whether diagnostic, formative or summative.
- Have clear and published grading/marking criteria.
- Where possible, the assessment is not relying on the verdicts of single examiners.
- Take account of all the possible consequences of examinations regulations.
- Have clear regulations covering student absence, illness and other mitigating circumstances.
- Ensure that assessments are conducted securely in accordance with the institution's stated procedures.
- Be subject to administrative verification checks to ensure the accuracy of the procedures.
- Inform students clearly about the assessment strategy being used for their program, what examination regulations or other assessment methods they will be subject to, what will be expected of them, and the criteria that will be applied to the assessment of their performance.
- Examined and evaluated by external examiner.
- Giving students feedback about their weaknesses in the classroom during the learning process

Process adopted by the program for assessing students' achievement of Program Learning Outcomes (PLOs):

IAU has a clear Policy and procedures to assure the quality of assessment of its students. All students are assessed using predefined criteria, regulations and procedures, and it is applied consistently across all the programs. Students' assessments are carried out professionally at all times and takes account of the extensive knowledge that exists on testing and examination processes. The assessment process is designed in such a way that the student's achievement of each program learning outcomes is measured in a quantitative manner.

Program level student-learning outcomes are measurable results-oriented statements that specify what students will be able to know and be able to do as a result of participating in an academic degree program. These outcomes are described in each program's academic learning assessment

plans. While planning for assessment of PLOs at IAU, each program is asked to develop a policy to ensure that assessment tools are designed in such as way to contribute to high quality student learning and support the development, delivery and quality assurance of both department and courses. As stipulated by NCAAA, the programs offered at IAU use two ways to assess Program Learning Outcomes (PLO) viz. direct and indirect methods of LOs assessment.

COD Assessment Framework

The College of Dentistry (COD) employs assessment methods to measure student achievement of Program Learning Outcomes (PLOs) (which are mapped with graduate attribute) at set target levels. The Examination, Calibration and competency Unit has developed assessment plans for courses at various program phases, including Biomedical, Preclinical Dental, and Clinical courses, since 2016. The unit has also recommended a list of assessment methods to be used at COD, with codes assigned for assessing CLOs taught with specific teaching strategies approved as, (COD Teaching strategies, COD Assessment methods, COD grade distribution scheme).

There are two primary forms of assessment:

1. Direct assessment
2. Indirect assessment

The assessment planning and design follow a top-down approach, starting from the college Vision and mission level to Graduate attributes to PLOs down to the CLO level. Meanwhile, the assessment itself follows a bottom-up approach, starting from CLOs up to the college Vision and mission level. Each course has its own objectives, description, CLOs, teaching strategies, assessment plan, and quality assurance practices to evaluate faculty, courses, and the program as a whole. COD ensures that feedback is provided in the quality system, along with reports from independent/external reviewers and examiners who continuously contribute to the evolution of the program delivery and outcomes. The quality assurance of program teaching and learning is depicted in the flowing flowchart (figure 7):
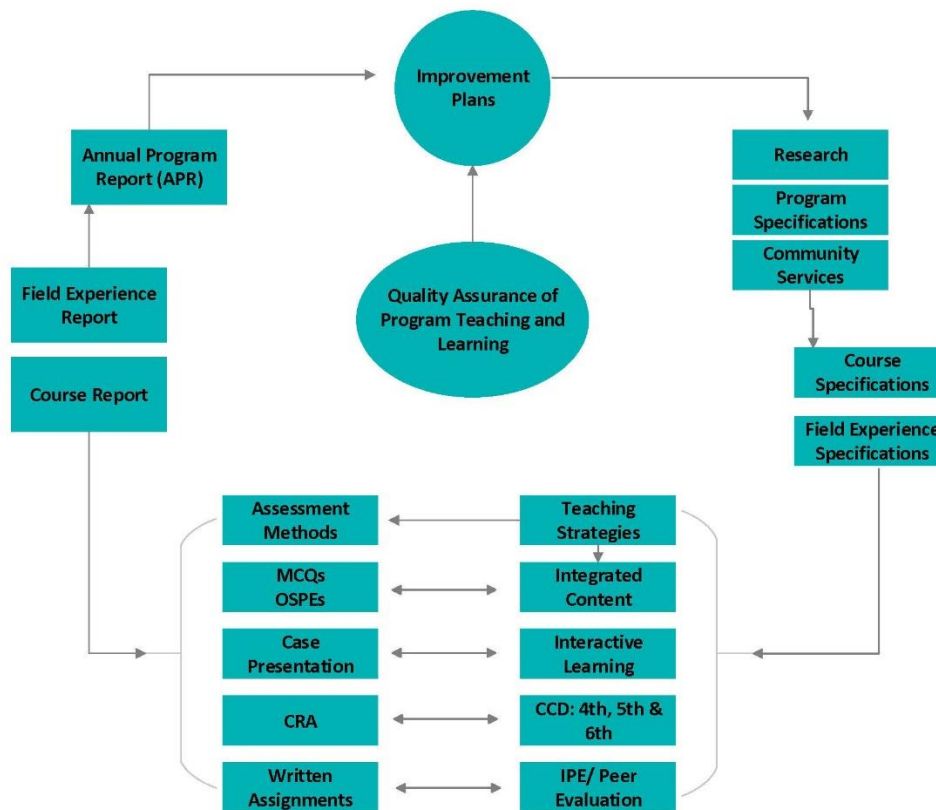
Figure 7: Quality assurance of program teaching and learning

The Examination, Calibration and Competency Unit at COD ensures the quality and validity of assessment methods and the level of student achievement across the BDS program through several best practices.

- Examination Policy outlines general examination guidelines that must be followed in designing assessments at the course level.
- To ensure consistency, all courses at the College of Dentistry must comply with the COD teaching strategies, assessment methods, and grading policy, and an audit of all course specifications at the departmental level is conducted to verify alignment with these policies and CLOs.
- An exam blueprint must be developed for all courses, and course directors are expected to adhere to it when preparing exam papers.
- Rubrics are used by the Courses which have written assignments, case presentations and projects for a valid and objective assessment.
- Internal validation of the students' assessment is done by sampling 10% of students' MCQ scores and Short Answer scripts by two peers ensuring the fairness of the students scoring procedures.

3. Quality assurance focusing on teaching staff

The University requires that all faculty be evaluated on their performance on an annual basis. The appraisal is conducted according to the IAU guide for job performance.

At COD, teaching staff and support staff performance Evaluation is conducted in alignment with IAU guide in addition to the college policy.

The college maintains performance appraisal data to provide its teaching staff with constructive feedback on goal setting, progress assessment, career progress, and evaluation of performance. The criteria for teaching staff performance evaluation include:

- Teaching performance
- Research and publications
- Clinical and community service
- Administrative, social, cultural, and sport activities.
- Ethical and personal qualities.

Before the evaluation, the department chairman informs the teaching staff for the commencement of the appraisal and to review the job description for any change and the teaching staff fills out the self-evaluation form. The department chairman conducts a one-to-one meeting with the teaching staff and follows the procedure in the policy. The teaching staff should acknowledge and sign the form that is forwarded to the Dean's office where it is forwarded to Vice President for Academic Affairs for final approval. For unachieved performance targets, the department chairman follows the policy underachieving teaching staff. Another assisting tool in quality of teaching is the course evaluation surveys. The department chairmen review the course report of the concerned faculty and result of Dentistry Course Survey (DCS) / Course Evaluation Survey (CES) and Student Survey on Lecturing Skills (SSLS). The department chair discusses the evaluation with faculty members who should acknowledge and agree/disagree with the final evaluation.

4. Quality assurance focusing on facilities and learning resources

The university has clear procedures to ensure that the quality of facilities needed for student learning are adequate and appropriate for each program (i.e. Adequate checks on the computer facilities; Adequate checks on the library; Adequate checks on the laboratories). An exclusive policy entitled, 'ICT Policy' is in place which informs the faculty, support staff, students, management and other individuals authorized to use university facilities, and the regulations relating to the use of ICT systems. Also, the Information Security Policy is operational at the university level, to protect and preserve computer-based information generated by, owned by, or otherwise in the possession of university, including all academic, administrative, and research data. Some of the KPIs focusing on facilities and learning resources are:

Stakeholder evaluation of library and media center. (Average overall rating of the adequacy of the library and media center, including:

- Staff assistance
- Current and up to date
- Copy and print facilities,
- Functionality of equipment
- Availability of study sites

An exclusive Policy and Procedures manual is existing in the Directorate of Library Affairs to govern all the functions related to management of Learning Resources at IAU. The following KPIs are used to measure the effectiveness of learning resources and are reported to university higher administration on an annual basis.

- Number of books and periodicals in the Hospital Library per student.
- Annual expenditure on books and periodicals per student.
- Ratio of books to titles
- Number of books, journals and total publications per full time student.
- Number of on-line databases available for students and faculty through the library.
- Number of accessible computer terminals per student

The following COD KPIs are used to assess the users satisfaction with the facilities and learning resources

- Student's satisfaction about labs/ clinics
- Faculty satisfaction rating about research environment and facilities.
- Average overall rating of adequacy of facilities and equipment in a survey of teaching staff.

5. Quality assurance focusing on students support services.

The university has clear procedures to assure the quality of the student support and student counseling. The Counseling and Advising Center is directly working under the supervision of Vice President of Academic Affairs and it has Academic Guidance Units operating at college level that cater services to the students in each college. An approved code of behavior has been established at the university level, which identified the students' rights and responsibilities as well as actions to be taken for breaches of student discipline.

Some of the KPIs focusing on students support services are:

- Ratio of Students: Administrative Staff

- Ratio of Students: Student Support Staff.

- The amount of faculty time scheduled for individual student consultations.

- Student assessments of availability of faculty for consultation and academic advice

System focusing on administrative activities

The COD adheres to the guidelines developed by the university to monitor the quality improvements in the administrative processes.

a) Guidelines for monitoring Quality Improvements in the Administrative Units

The assessment process for administrative units is completed annually, and it implemented mainly to support the university's mission and to abide by the institutional commitment on institutional effectiveness and ultimately to promote an environment that fosters student learning. The process is managed by the DQAA, in cooperation with the Administrative Development Deanship. Every year, individual units in cooperation with DQAA review their mission, goals and assessment strategies; collect and analyze data, and utilize this information to make changes/updates as appropriate. To guide this process, units develop annual assessment plans and reports. These documents are submitted to the Administrative Development Deanship for review and feedback.

Administrative support services delivered at IAU include:

- Information and Communication Technology (ICT) Services
- Directorate of Library Affairs
- Faculty and Personal Affairs
- Directorate of Budgeting and Planning
- Students Admission and Registration
- Deanship of Students Affairs

These areas ensure that the facilities, finances, and personnel support the learning environment dedicated to serving the student body and focus on the improvement of the basic operations necessary to the university's infrastructure.

Some of the KPIs used to monitor administrative support services at IAU are:

- Ratio of Students to Administrative Staff
- Ratio of Students to Student Support Staff.
- The amount of faculty time scheduled for individual student consultations.
- Student assessments of availability of faculty for consultation and academic advice.
- Number of books and periodicals in the Hospital Library per student.
- Annual expenditure on books and periodicals per student
- Ratio of books to titles.
- Number of books, journals and total publications per full time student.
- Number of on-line data bases available for students and faculty through the library.
- Average response times in obtaining materials through inter-library loans.
- Annual IT expenditure per student
- Number of accessible computer terminals per student
- Usage rates for teaching spaces.
- Total operating expenditure per student (apart from accommodation and allowance)
- Proportion of funding derived from varied sources (Government, student fees, research income and other)
- Proportion of teaching staff participating in professional development activities in the past year.
- Number/proportion of faculty holding official positions international academic, research or professional organizations.
- Breadth and diversity of background of academic staff as measured by country where highest qualification obtained and ethnic background.
- Proportion of faculty leaving the College in past year

- Number of formal faculty and staff complaints or disputes as a proportion of total number.

- Proportions of faculty rating the institution positively on confidential opinion surveys.

- New faculty assessments of the value of orientation programs.

- Faculty assessments of the value of performance evaluation processes.

b) Administrative Outcomes Assessment Process

The administrative outcomes assessment process is a cyclic sub-process in the University Institutional Effectiveness Process. It works as follows:

- Defining the unit goals in line with university mission and goals.
- Driving the unit outcomes.
- Identifying and designing the appropriate assessment tools that measure unit outcomes.
- Establishing an achievement target for each assessment measure.
- Collecting and analyzing the assessment data to determine major findings.
- Developing and implementing an action plan based on assessment results to improve attainment of expected outcomes.

6. Quality assurance focusing on research and community service

Community Service:

Community service is recognized as an essential institutional, college, and program responsibility at all levels. The IAU categorically emphasizes its role in community service as one of its three primary focus areas which is aligned with COD mission and the program goals. The community service and partnership unit (CSPU) was established to provide the highest standard of curative and preventive services to improve dental and oral health of society. The unit works and reports on its activities and achievements, as well as areas for improvements, challenges, and future plans to the leadership of the Vice Dean of Development & Community Partnership. The unit is led by the director appointed by the Dean and functions through curricular and extracurricular activities. The unit responsibilities include the following:

- Sensitizing faculty members, administrators, and students of the importance of their role in community service.
- Promote community activities for faculty and students and documenting them in the responsibility bank.
- Encourage community involvement in the evaluation and development of the community service provided by the college/programs.
- Providing channels for effective communication between the college staff and the various community parties.

The unit's performance is guided by the program's operational plan (Goal 4) and evaluated by the unit's internal indicators as well as the relevant program KPIs

Research:

The Vice Deanship of Scientific Research & Innovation and the Vice Dean for Development and Community partnership prepare the operational plans in line with the college's strategic plan, and develop appropriate projects to implement its initiatives, which include the following:

- Update the research priorities according to the vision (2030) and the needs of society.
- Encouraging faculty members to increase research production capacity and publish academic research in refereed scientific journals and participation in scientific conferences and forums.
- Activating research partnerships between disciplines and enhancing research cooperation between the educational institutions local and regional.

- Encourage members to establish specialized scientific forums and hold specialized scientific research seminars.
- Encouraging members to participate in the Research Excellence award in Scientific Research and Service.
- Encouraging participation in judging competitions and research

Reports are prepared that include performance indicators for the objectives and compared annually, to develop improvement plans to achieve quality performance, and then are approved in the boards of college.

Monitoring System and Evaluation Processes

The process of monitoring quality assurance activities at COD is monitored by the VDD&CP through:

- Course Portfolio Auditing to ensure quality of the program.
- Surveys from Stakeholders to ensure high satisfaction levels with services at COD.
- Key Performance Indicators to ensure achievement of set targets and determine action plans for improvement.

Course Portfolio Auditing:

The VDAA at the start of each semester sends course specifications (CS) auditing package to all auditors and course directors which includes guidelines for the preparation of the CS such as updated COD instructional and assessment methods, blueprint guidelines etc. There are auditors from each department and VDAA sends the CS at the start of each semester to respective department auditors and subsequently, feedback is provided to the course directors. If any discrepancy in CS is noted during the audit, course directors are contacted to provide the required information. The improvement plan for each course is also monitored by course reports. Furthermore, at the end of each semester, all course directors are requested to submit the complete course portfolio of their respective courses. In 2019, a comprehensive course portfolio audit checklist was developed by the VDD&CP and approved by the Dean. Course portfolio audit checklist includes all the key elements of each course such as (CS), course report CR exam blueprint, item analysis, mid-semester report, improvement plan and samples for all student assessments. Following are the regulations for Course Portfolio Submission and Audit communicated to all faculty members.

1. Department Chairpersons will submit course portfolios to the VDD&CP in the last week of February (for 1st Semester) and last week of the September (2nd Semester), for each academic year.

2. Audit reports for completed portfolios with minor requirements will be sent from VDD&CP to Department Chairpersons.

3. Department Chairpersons will be required to respond to audit reports for portfolios necessitating major modifications to finalize the reports and proceed to Annual Program Report preparations.

4. VDD&CP will conduct the completion of the course portfolio audit and final approval.

5. Archiving will be performed. The flow Diagram for Course-portfolio Audit is presented in Figure 8:

Department Chairperson

Portfolios Submission-Signed and Dated

Audit Committee

Audit report with Minor and Major Modifications

Department Chairperson

Modified Portfolios Signed and Dated

Audit Committee
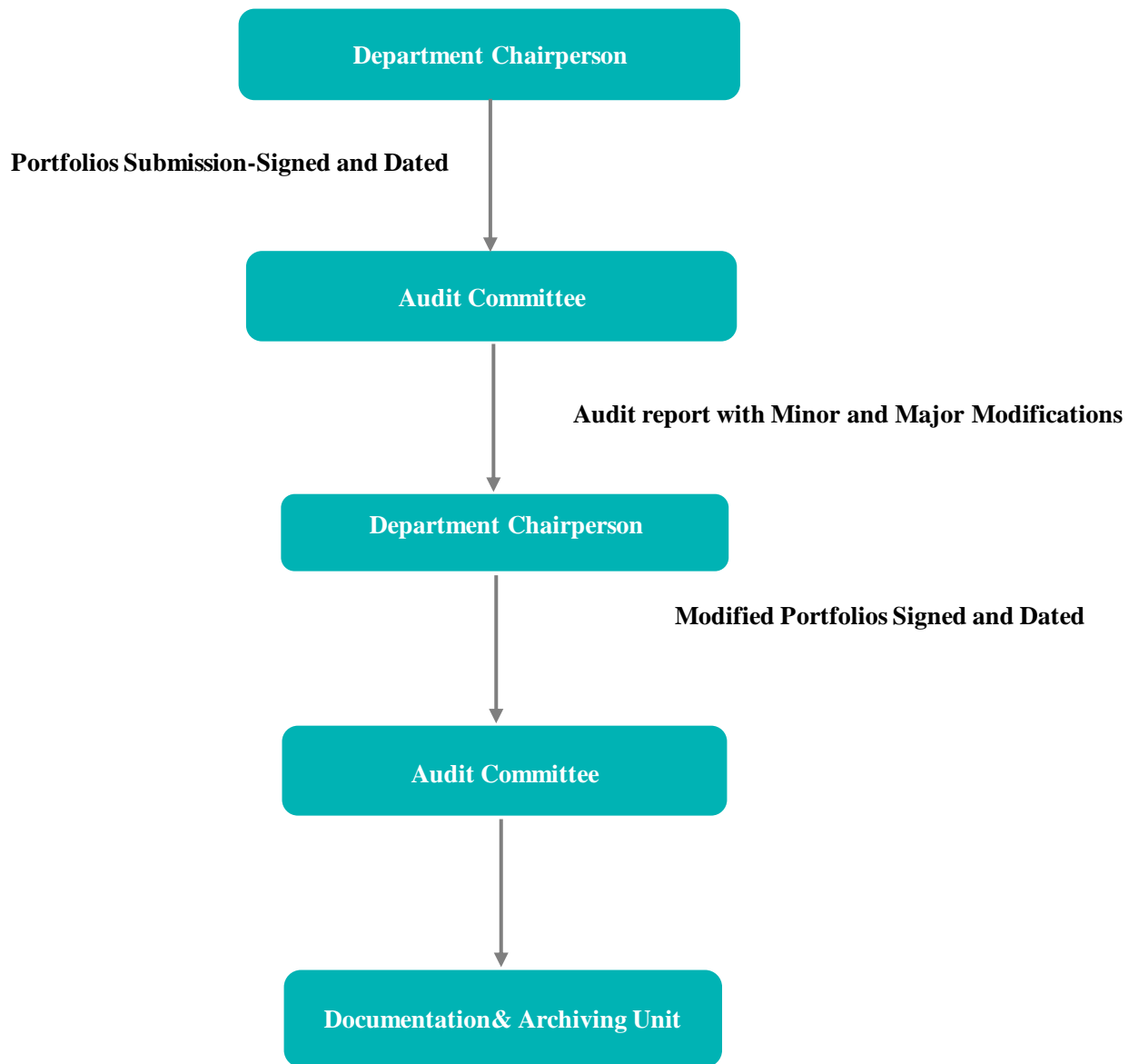
Documentation& Archiving Unit

Figure 8: Flow Diagram for Course-portfolio Audit

The summary of the monitoring of quality assurance in course specifications and reports are presented in the following table.

Course specifications and reports:

Report		Prepared by	Approved by	Description/Distribution
Program Specification		VD Academic Affairs Curriculum Committee	VD Academic Affairs VDD&CP	Program specification supports the planning, monitoring, and improvement of the program. It includes the information required to guide contributors and students to expected learning outcomes, teaching and assessment strategies. The program meets the standards for quality assurance and accreditation of higher education programs as required by the Saudi Arabian Qualification Framework as well as additional specific requirements of international professional agencies.
Course Portfolio	Course Specification	Course Director	VD Academic Affairs VDD&CP	Course specifications are available, prepared to establish the details of planning for the course as part of the package of arrangements to achieve the intended learning outcomes of the program. The course specifications are prepared in the designated NCAAA templates and include the clos, learning resources, facilities requirements, and course-specific needs.
	Course Report	Course Director	VD Academic Affairs VDD&CP	Completed by course directors at the end of each course, prepared in the NCAAA templates. It is revised and signed by the department chair and sent to the VDAA and the VDDS&CS.
Field Experience Specification		VD Clinal Affairs Internship Committee	VD Clinal Affairs VDD&CP	Although partially offered off-campus in hospitals and other centres and supervised by specialists and consultants outside the college, its successful completion is required for graduation. Field experience specification is prepared on the NCAAA template to indicate program competencies, scheduling, supervision, evaluation, and certification. COD follows the IAU guideline for field experience of health specialities.

Field Experience Report	VDCA IC	VDCA VDD&CP	Field experience reports are prepared each year. Reports of field experience are provided to the VDCA and VDSD&CS.
Annual Program Report	VDAA VDD&CP	College Board Dean Vice Deans	Prepared at the end of each academic year after with reference to course reports (2 semesters). In addition, there are data and other reports included in the report that address all functions at the college, such as relevant surveys and data on student advising, research, and community service activities. The report on quality in the program is based on evidence and interpretations provided from a range of sources. Data analyses and improvement plans are developed, and matters selected for continuous monitoring are included. Those are followed up and reported in the following report. APR is discussed and approved by the college board.

Quality Evaluation Surveys

The measurement and evaluation unit at VDD&CP administers and follows-up on the list of surveys designed to solicit feedback from students, faculty, staff, patients and employers as given below:

University evaluation surveys (Estibana)

- **Students:**

    1. Program Evaluation Survey (PES).
    2. Experience Survey (SES).
    3. Course Evaluation Survey (CES).
    4. Vision, Mission & Values Survey (VMV).
    5. Satisfaction Survey about Academic Advisor (AACS).
    6. Library User Satisfaction Survey (LUS).

- **Faculty:**

    1. Faculty Academic Job Satisfaction Survey (AJSS).
    2. Faculty Vision, Mission & Values Survey (VMV).

Time line of IAU Evaluation Survey

S #:	List of Surveys	Survey Administered	Response Collected	Analysis & Result	Results shared with Senior Management	Validation	Issues and Actions	Feedback to Stakeholders	Total # of Weeks
	Students								
1.	Program Evaluation Survey (PES).	Yearly, 2 weeks before the end of 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
2.	Experience Survey (SES).	Yearly, 2 weeks before the end of 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
3.	Course Evaluation Survey (CES)	Yearly, 2 weeks before in the end of each Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
4.	Vision, Mission & Values Survey (VMV)	Yearly, 2 weeks before the end of 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
5.	Satisfaction Survey about Academic Advisor (AACS)	Yearly, 2 weeks before the end of 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
6.	Library User Satisfaction Survey (LUS)	Yearly, 2 weeks before the end of 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
	Faculty								
7.	Academic Job Satisfaction Survey (AJSS).	Yearly, 2 weeks before the end of 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
8.	Vision, Mission & Values Survey (VMV).	Yearly, 2 weeks before the end of 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks

College of Dentistry evaluation surveys

- **Student Surveys list**
  1. Dentistry Courses Survey (DCS).
  2. Survey about Assessment & Examination.
  3. Survey about Extracurricular Activities.
  4. User/ Facility Satisfaction Survey.
  5. Graduate's Attribute and Program Learning Outcomes Attainment Survey.
  6. Admission Test Survey.

Designed to obtain feedback from students for teaching, learning, assessment, availability and adequacy of learning resources and facilities and student support services at different academic levels of study.

- **Faculty surveys list**
  1. User/ Facility Satisfaction Survey.
  2. Library User Satisfaction Survey (LUS).
  3. Researcher Satisfaction Survey.

Designed and implemented to measure the satisfaction level of teaching staff as related to their job-related functions and the adequacy of facilities.

- **Employees satisfaction Survey**

Administrative and support staff play a vital role in carrying out operational functions to accomplish COD's goals and objectives to provide quality dental education, research, and clinical and community services. VDD&CP has designed and administers evaluation surveys to measure the satisfaction level of these staff members as well for their job-related functions, work environment and facilities.

- **Alumni Survey**

Considering the value of retrospective assessment and the impact of program quality on the careers of college alumni, a survey tool is customized to seek the feedback of alumni as well.

- **Employers Survey**

The program administration values and seeks the opinion of employers of its graduates as practising dentists and postgraduate students to reflect and give an external endorsement about the quality of the program.

- **Patient Satisfaction Survey**

The Dental Hospital offers patient care services for dental and oral health by faculty, postgraduate and undergraduate students, and interns. A patient satisfaction survey is instituted to evaluate their experience and assess their satisfaction levels with the facilities, affairs, and quality of provided dental care.

Timeline of COD Students Satisfaction Surveys:

S #:	List of Surveys	Survey Administered	Response Collected	Analysis & Result	Results shared with Senior Management	Validation	Issues and Actions	Feedback to Stakeholders	Total # of Weeks
1.	Admission Test Survey	In the end of admission test & interview	1 Week	1 Week	1 Day	3 Days	3 Days	3 Days	3 Weeks
2.	Dentistry Course Survey	2 weeks Before the final examination end of each Semester	1 Week	1 Week	1 Day	3 Days	3 Days	3 Days	3 Weeks
3.	Student Survey about Assessment and Examination	Following the final examination of each Semester	1 Day	1 Week	2 Days	3 Days	1 Week	1 Week	4 Weeks
4.	Student Survey about Extra-curricular Activities.	Yearly, 3 weeks before the end of the 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
5.	Student's Services User Satisfaction Survey	Yearly, 3 weeks before the end of 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
6.	Student's Graduate's Attribute and Program Learning Outcomes Attainment Survey.	Yearly, In the end of 2nd Semester from 6th year students only	1 week	1 week	1 week	1 week	1 week	1 week	6 Weeks

Timeline of COD Faculty Evaluation Surveys:

S #:	List of Surveys	Survey Administered	Response Collected	Analysis & Result	Results shared with Senior Management	Validation	Issues and Actions	Feedback to Stakeholders	Total # of Weeks
1.	user/ facility Satisfaction Survey	Yearly, 2 weeks before the end of 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
2.	Library User Satisfaction Survey (LUS).	Yearly, 2 weeks before the end of 2nd Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
3.	Researcher Satisfaction Survey	Yearly, 1 month after the beginning of 1st Semester	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks

Timeline of other Stakeholder's Satisfaction Surveys:

S #:	List of Surveys	Survey Administered	Response Collected	Analysis & Result	Results shared with Senior Management	Validation	Issues and Actions	Feedback to Stakeholders	Total # of Weeks
1.	Employees Satisfaction Survey	Yearly, at the beginning of the academic year	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
2	Employer's Satisfaction Survey	Yearly, in April All Employer of COD Graduates	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
3.	Alumni Survey	Yearly	1 week	2 weeks	1 week	1 week	1 week	1 week	7 Weeks
4.	Patient's Feedback & Satisfaction Survey	Ongoing, each patient once every 3 months	Monthly	1 week	2 weeks				
			Quarterly report Every 3 months		2 weeks				

The survey schedule is approved by the concerned vice deanship and conducted by the VDD&CP. All COD surveys adhere to appropriate ethical standards and policy and procedure for survey design and distribution are developed and implemented. Participation in students' surveys is mandatory and anonymous and the recommended response is higher than 50%. DQAA collects and analyses the results and forwards the report to the Dean. For surveys, survey monkey or paper-based, results are shared with concerned Vice Deans and departmental chairs for dissemination among relevant units, committees, faculty members, etc. For example, departmental chairs and the concerned course directors review the survey results, include them in course reports and submit improvement action plans if needed. Similarly, surveys conducted to evaluate the research facilities at COD are shared with the Vice Dean for Postgraduate Studies and Innovation for validation, feedback, and required improvement actions.

Surveys results and action plan for improvement:

The results should demonstrate the core items with mean, median, and cumulative percentage of agreement. The color codes (traffic light system) indicate the level of quality, where the green color indicates high quality, yellow indicates an acceptable level of quality, and red indicates improvement required as shown in figure

Indices	Mean	Cum. % of response with score 4 or 5
High Quality	3.6 & above	80% & above
Acceptable	2.6 - 3.6	60% - 80%
Improvement Required	Below 2.6	Below 60%

Figure 9: Key for color codes

The findings of the analysis should be interpreted and integrated into a comprehensive report with the findings of the data analysis, with graphical representations illustrating the strengths and areas of weakness (SWOT analysis) (Figure 10) Summary of the results are communicated to the Dean of the college through formal communication.

Developing 'Priorities' from SWOT Analysis.

STRENGTHS	OPPORTUNITIES
Items rated by Stakeholders as "High Quality Performance" Mean range >3.6 Cumulative % >80%	Items rated by Stakeholders as "Acceptable Performance" Mean range 2.6 to 3.6 Cumulative % range from 60%-80%
WEAKNESS Items rated by Stakeholders as "Improvement Required" Mean range < 2.6 Cumulative % < 60%	THREATS (Obstacle you face) Responder Fatigue Poor Response rate Opened ended response External Environment Influence

Figure 10: SWOT Analysis

Action plans should be developed for the items requiring improvements, and steps should be carried out with follow-up measures by the respective academic programs at the colleges through the vice dean of quality and community partnership

Factors considered while developing Action plans:

- Focus on all the weaknesses pointed out by stakeholders and convert those items as a priority for improving the quality of a course or Program.

- Also, focus on items pointed out by stakeholders as "Improvement required" and then convert it into Priority List based on the trend data (by comparing previous year's performance)

- Not all Priorities are converted to Action Plan

- Explore each item with its importance and its contribution to the overall quality of the course/Program.

- Nature of the problem identified from Stakeholders survey.

- Consistent poor performance of specific item (a particular issue) in the last 3 years (Data Trend)

- Resources required to accomplish the list of Priorities identified by the Stakeholders.

- Timelines required for accomplishing the priorities identified by the stakeholders.

- Any Problem affecting the Mission of the Program needs immediate attention.

The program should organize a separate meeting with the students to disseminate the findings and actions taken to fix the identified quality gaps. The implementation of the action plan requires a coordinated effect of faculty members, Department chairs, Vice deans and the Dean of the College.

Program's Key Performance Indicators

The KPI task force at COD has developed the program's KPIs and measurement process to present the program performance and support decision-making councils, vice deanships, units, and committees. There are currently 32 KPIs monitoring the BDS program. Of those, 17 are required by the NCAAA and 15 are developed by the program administration. Targets and internal benchmarks have been established with critical analysis of the results for performance improvement where required. The reporting of KPIs and benchmarking is presented as per standardized format provided by the ETEC-NCAAA. It includes actual benchmark value, target benchmark, internal benchmark, external benchmark and new target benchmark value. The college adopts the procedures set by the university to ensure the quality of performance through measuring performance indicators and surveys.

Key Performance Indicators: UDMetrics (Muashirat)

A well-structured methodology is in place for collecting, analyzing and reporting of KPIs in COD. An exclusive application entitled, "UDMetrics / Muashirat" has been developed and it is being used both to gather and report KPIs to the stakeholders. As such, COD on its journey towards quality, uses "Key Performance Indicators (KPIs)" to assess its current performance with regard to its core elements of mission i.e. teaching and learning, research and community services and guide action towards improvement in achieving its goals and objectives.

The format for indicators and benchmarks is consistent with that adopted for the institution as whole. To facilitate the process of collection of data for the calculation of KPIs, the COD adopted UDMetrics. A unique username and password is provided to the Vice Deanship for Quality at the college which hold the overall responsibility of collecting all the data and feed that information in the UDMetrics. The data is then analyzed by the Performance Measurement Unit of DQAA in such a way to prepare the final report.

Scope of Key Performance Indicators (KPIs) at COD

S#	Ref Code	Indicators
1.	P-01	Percentage of performance indicators of the operational plan objectives of the program that achieved the targeted annual level to the total number of indicators targeted for these objectives in the same year.
2.	P-02	Students' Evaluation of Quality of Learning Experience in the program
3.	P-03	Students' Evaluation of the Quality of Courses
4.	P-04	Percentage of students who complete the program in minimum time specified for the program.
5.	P-05	Percentage of students entering programs who successfully complete first year of the program.
6.	P-06	Students' performance in the professional and/or national examinations.
7.	P-07	Graduates' employability and enrolment in postgraduate programs: Percentage of Graduates who within a year of graduation are: (a) employed (b) enrolled in further study
8.	P-08	Average number of students per class (in each teaching session/activity: lecture, small group, tutorial, laboratory or clinical session).
9.	P-09	Employers' evaluation of the program graduates proficiency: Average of overall rating of employers for the proficiency of the program graduates on a five-point scale in an annual survey.
10.	P-10	Students' satisfaction with the offered services: Average of students' satisfaction rate with the various services offered by the program (restaurants, transportation, sports facilities, academic advising, …) on a five-point scale in an annual survey.
11.	P-11	Ratio of students to teaching staff. (Based on full time equivalents)
12.	P-12	Percentage of teaching staff distribution: (Based on: a. Gender, b. Branches, c. Academic Ranking).
13.	P-13	Staff Attrition: Proportion of teaching staff leaving the program annually for reasons other than age retirement to the total number of teaching staff.

S#	Ref Code	Indicators
14.	P-14	Percentage of full-time faculty members who published at least one research during the year to total faculty members in the program.
15.	P-15	The average number of refereed and/or published research per each faculty member during the year (total number of refereed and/or published research to the total number of full-time or equivalent faculty members during the year).
16.	P-16	The average number of citations in refereed journals from published research per faculty member in the program (total number of citations in refereed journals from published research for full-time or equivalent faculty members to the total research published).
17.	P-17	Satisfaction of beneficiaries with the learning resources: Average of beneficiaries' satisfaction rate with the adequacy and diversity of learning resources (references, journals, databases… etc.) on a five-point scale in an annual survey.
COD additional indicators		
18.	COD 1.1	Stakeholders' awareness ratings of the Mission Statement and Objectives (Average rating on how well the mission is known to teaching staff, undergraduate and graduate students, respectively, on a five- point scale in an annual survey).
19.	COD 2.1	Stakeholder evaluation of the Policy Handbook, including administrative flow chart and job responsibilities (Average rating on the adequacy of the Policy Handbook on a five- point scale in an annual survey of teaching staff and final year students).
20.	COD 2.2	Employee's (administrative & support staff) satisfaction about the program leadership and their professional role & responsibility in achievement of Institutional/ Program Goals (Average rating on a five-point scale in an annual survey of administrative staff, dental technicians and support staff).
21.	COD 3.1	Students' clinical productivity.

S#	Ref Code	Indicators
22.	COD 3.2	Program admission process student's satisfaction (Average rating on a numeric scale).
23.	COD 3.3	Number of partner organizations per year.
24.	COD 3.4	Total number of beneficiaries of extracurricular activities and community service programs
25.	COD 3.5	Patient satisfaction about the quality of treatment provided (average score following a rating scale)
26.	COD 4.1	Student's satisfaction about labs/ clinics (*on a five- point scale in an annual survey of students*).
27.	COD 5.1	Percentage of Full-time teaching staff with verified doctoral qualification.
28.	COD 5.2	Proportion of teaching staff participating in the Professional development activities in the *past year*.
29.	COD 5.3	Result of teaching staff found satisfied with their job. (*Academic Job Satisfaction Survey*)
30.	COD 5.4	% of full time faculty and other staff actively engaged in community service activities.
31.	COD 5.5	Faculty satisfaction rating about research environment and facilities.
32.	COD 6.1	Average overall rating of adequacy of facilities and equipment in a survey of teaching staff.

The program follows the institutional mechanism to calculate both internal and external benchmarks viz.

Actual Benchmark

It is the actual and latest reported value for each indicator. In order to measure it in a uniform manner, certain principles need to be followed to gain uniformity in getting the results. These principles include:

- Data requirements and mode of collection should be unique.
- Uniform template or data collection instrument should be in place for collecting data.
- A standard numerator and denominator data source is required, and all the data need to be collected from that source across all the academic year.
- The availability of data varies across time (i.e., readiness for collection) and it should be properly defined with regard to its collection.
- A uniform methodology should be adopted for calculating each benchmark.
- The mode of reporting results should be unique and standardized for each Indicator.
- Each KPI is presented in terms of overall value and values for males and females.

Internal Benchmark: It can be carried out in two ways viz.

Option 1: It is either the value measured in the previous year in case of only one-year data or an average value based on data of the past successive years (maximum 3 years). The internal benchmark is to be presented as 'overall value' followed by separate values for males and females. It is paramount, and it is recommended to mention all the past two- or three-years data in the internal benchmark space of the KPI template along with the average score.

Option 2: It involves comparing practices and processes with other homogenous program within the University. This option can be chosen only if there is a similar program offered within the same university. This can be justified with regard to similarity of those program in terms of credit hours, course-wise comparisons, goals and objectives etc. The advantage of internal benchmarking is that access to sensitive data and information is easier; standardized data is often readily available; and usually less time and resources are needed. There may be relatively few barriers to implementation as practices may be relatively easy to transfer across the same organization.

Target Benchmark

This is the value of the KPI to be achieved as per program goals and objectives and it is decided by the steering committee based on its previous year performance and the internal benchmark. If the previous year performance falls less than the internal benchmark, then the target benchmark is set equal to the Internal Benchmark value.

The college adopt the following criteria established by DQAA while fixing and revising targets and COD strictly adheres to it viz.

(i) Based on the data trend which depicts the level of performance of the program in the last three academic years. This will help the program administration to understand the threshold (limits) of the program's performance. Following steps are to be followed to set target(s) while using 'retrospective data-trend analysis' methods viz.

- Collect data for the previous two or three years (there is no upper threshold)
- Plot the data using either bar graph or control chart
- Study the trend of the data (either increase or decrease) in the bar graph or control chart
- Calculate the average score (internal benchmark)
- Set the target either 'higher' or 'lower' than the last year score, depending on the type of the KPIs (Note: either lower or higher the better). It is important to note that the target benchmark cannot be less the internal benchmark. If the target is found to be less than the internal, set the 'target' equal to the internal threshold.

(ii) Keeping in view of college strategic target:

The strategic plan of both university and the college will be used as guide in fixing target. There are a set of performance indicators used by the university/college to study its progress towards the achievement of strategic plan and the program administration use this as a base while fixing its target. Upon completion of each academic year, the strategic planning committee, both at the institution and college review the 'targets' achieved by the university and the program and devise a new target based on the strategic priorities of the university/program and taking into consideration of the prevailing environment. Through this approach, targets are set based on thorough exploration of the various factors influencing the institution or program, not only by athematic calculation.

(iii) Based on the consensus of the steering committee. In the absence of previous year data and if any KPIs to be measured for the first time, the program administration uses 'Consensus" methodology while fixing the target. A 'SWOT' analysis will be carried out by the team members. Under SWOT analysis, team members will study the strength(s), opportunity, weakness and threats of achieving the desired target level. Accordingly, members of the steering committee will discuss and explore the 'pros' and 'cons' of achieving the required target level of each key performance indicators and then fix the final target.

(iv) Based on the Performance of the external benchmark. The performance of the external benchmarking partner is also a driving force while fixing the target. During the benchmarking process, programs exchange some of its good practices and adopt some of them from its partner. By means of doing so, the program aiming to reach the performance 'targets' of its partner institution within certain stipulated period. Several factors need to be considered while setting target using this method and it include:

- Amount of time taken by the partner institution to reach the current level of performance target and it will give an indication for COD to set its target. Based on that, COD and its program will decide that time required to accomplish the target (i.e. whether the set target can be achieved within the benchmarking period)
- Financial commitment required to set-up the infrastructure required to achieve the target
- Logistics and Human resources required achieving the target.
- Adoption of good practice from the partner institution, including the constraints involved in this process.

(v) Implications of external environment to the program. Any implications for changes that may be required in the mission and goals, content, or methods of delivery of the program. This will warrant the program to fix the target to fulfil the mission/goals of the program within stipulated period.

The Deanship of Quality and Academic Accreditation (DQAA) provided the above five criteria and advice all the programs offered at IAU to choose a suitable criterion while fixing target for the KPIs. Based on the above criteria, the program set its 'target' and the selection criterion varies for each KPI, depending on the type and purpose of measurement. Arithmetically, the program keeps the target between 5% – 20% increase or decrease based on the performance levels and nature of the KPIs.

Above criteria should be considered according to the National Standards, Accreditors Standards, Scientific studies and Benchmarking.

External Benchmark

To facilitate that, a benchmarking contract has been prepared at the institutional level. In order to initiate this process, the colleges can contact a comparable college/program for exchange of data and it is to be included in the analysis. The College can also initiate and suggest the process of making administrative arrangements to sign a memorandum with a comparable institution to secure an external benchmark. Three specific criteria have been fixed while choosing external benchmark viz.

a) Comparability of infrastructural facilities required for programs across KSA

b) Availability of data as required by the NCAAA.

c) Adoption of good practice to seek continuous quality improvements.

Analysis of KPIs

In the analysis section, a comparison of actual benchmark with the target and internal benchmarks was made to address the strengths and weaknesses of the KPI and to make strategies and action plan for the forthcoming years. The analysis is made with respect to two variables viz. (i) Gender specific comparison and (ii) Time trend analysis of data. If the external benchmarking partner data is available, then a comparison is made to gather good practice to improve the quality.

New Target Benchmark

This is the anticipated target to be set by the program for the forthcoming academic year. It is determined on the basis of any differences observed between the actual, target and internal benchmarks of the current year data (from KPI analysis). If the target fixed for the current year is achieved, then the new target is fixed by adding 5 to 10% increase or decrease based on the KPI and in accordance with any one of the criteria fixed by the DQAA for revising the target.

Development of Standard Corrective Action Plan to improve Quality

Based on the current performance level and keeping in view of the target set for the next academic year, the University/Program administration will establish action plan(s) for addressing the weakness identified from the benchmarking analysis. This will be carried by establishing committee(s) to implement or monitor action plan. For each action plan, responsible personnel will be allocated, required resources will be provided; timelines are set and appropriate support is offered to accomplish it on time.

Program Accreditation

Program's Self-study

The program compiles the requirements for accreditation, the polices, infrastructural data, program activities and supporting documentation collected and formulated in Self-Study report. This is regarded as the milestone for the assessment team's decision on whether the program fulfils the necessary requirements for accreditation. The self-study process is carried out by several committees, sub-committees and teams to collect the evidence perform self- evaluation and write the self-study report. The BDS program self-study process is accomplished by the Self-Study Committee and Teams mandated with the following responsibilities:

- Quality Development & Academic Accreditation Unit prepare and implement plan for BDS program accreditation and distribute the standards to standard committees.
- The chair of each standard responsible for direction the team members for collection, organization of evidences.
- Steering committee (SC) is responsible for check and recheck the collected the evidences based on standards.
- Leader of standard is responsible for preparing the SES for the standard after regular meetings with the members.
- Principle committee discuss the results of each standard with the standard committees.
- The SC is responsible for writing the self-study report and response to comments and suggestion of independent evaluators.

A program self-study is a thorough examination of the quality of a program. This document provides the description of Program based on the Self-Evaluation Scales for programmatic quality assurance and academic accreditation standards, which include the following standards of NCAAA:

1. Mission and Goals
2. Program Management and Quality Assurance
3. Teaching and Learning
4. Students
5. Teaching Staff
6. Learning Resources, Facilities and Equipment

The mission and objectives of the program and the extent to which they are to be being achieved thoroughly analyzed according to the standards for quality assurance and accreditation defined by the NCAAA. These standards are designed to support continuing quality improvement and to publicly recognize programs and institutions that meet required quality standards. The objective is to ensure good international standards in all programs offered in Saudi Arabia institutions. There are six standards evaluation scales have been determined for monitoring the quality assurance of the program. This document can also be used for planning, self- review, and support programmatic quality improvement strategies in higher education institutions.

The quality assurance and continuous improvement of BDS program is based on the self-evaluation carried out by program various units and committees based on the quality performance criteria. The faculty and staff responsible for the various activities in the program evaluate the level of performance. These are carried out according to each scale criteria and based on suitable evidence and proofs, with the support of performance indicators and benchmark comparisons with other programs of high-quality performance, especially in areas of high importance. This self-evaluation is supported by independent opinion through an independent evaluator or evaluators from outside the institution; to enhance the credibility, objectivity and accuracy of the evaluation.

Program Review:

Internal review

This is done in two stages, the 1st stage by the Vice Deanship for Development and Community Partnership at COD who review the documents uploaded by the program in one drive based on the accreditation requirements and provide the comments to the committees and other team members. In the 2nd stage, DQAA reviews the program documents, to ensure the adherence and implementation of NCAAA standards for program accreditation. A comprehensive report of visit will be submitted to the colleges, which includes improvements and recommendations.

External review and independent opinion

These reviews are done by experts' independent evaluators who evaluate all processes, activities and program outcomes and provides a report evaluation to the dean of college.

Post Accreditation Follow-Up

Based on the self-study report (SSR) and the external review panel report (RPR), NCAAA will make its decision. NCAAA decision may fall under any one of the following alternatives:

- Full accreditation
- Conditional accreditation is granted for a specified period, up to a maximum of three years,
- Accreditation will not be granted or withdrawn in cases of re-accreditation.

After institutions or programs have earned full accreditation, they are expected to complete a new self-study within seven years and participate in an external peer review conducted by the NCAAA for re-accreditation. The NCAAA may require earlier review of institutions or programs if it believes they are needed.

Periodical review

It is important to provide periodic feedback and conducting comprehensive and accurate review to investigate the appropriateness and effectiveness of BDS program operations. It should be in-depth examination of the environment in which the program operates, and any factor that expected to mediate changes in the program activities. Beside reviews, any changes in university policies could lead to changes in medium-term objectives, or in case of extreme change such as modifications in the mission. A report must be prepared that includes an analysis of changes in the original plans that may have occurred during the period, assessments of the degree of success in achieving the objectives, assessments of strengths and weaknesses that need to be addressed in future planning, and planning responses. The primary purpose of periodic reviews is to support the program's self-improvement efforts and also used as a basis for external reviews by the NCAAA / international accrediting body.

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References

- IAU – Internal Quality Assurance System
- NCAAA program KPIs.
- NCAAA standards for program accreditation.
- NCAAA Handbook for Quality Assurance and Accreditation in Saudi Arabia