KRE Society's

Karnatak Arts, Science and Commerce College, Bidar

Internal Quality Assurance Cell

Outcome Based Education

Standard Operating Procedure

(w.e.f. 2019-20, revised during 2021-22)

ಕರ್ನಾಟಕ ಕಲಾ, ವಾಣಿಜ್ಯ ಮತ್ತು ವಿಜ್ಞಾನ ಮಹಾವಿದ್ಯಾಲಯ, ಬೀದರ

(Affiliated to Gulbarga University, Kalaburagi)
NAAC RE-ACCREDIATED WITH 'A' Grade CGPA 3.24

Estd 1970

KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR

College with Potential for Excellence Status Awarded by UGC New Delhi
ISO 9001: 2015

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Standard Operating Procedure

Introduction: KRE Society's Karnatak Arts, Science and Commerce College in its pursuit of imparting quality technical education has got accredited by National Assessment & Accreditation Council (NAAC) Bangalore at A grade with CGPA 3.24 in third cycle during 2017 and certified with ISO 9001:2008. College also recognized as "College with Potential for Excellence" by University Grant commission, New Delhi. Awarded District Green Champion Award by MGNRE, Govt. of India. Additionally, college also have various schemes for fostering the self-directed learning such as Institution's Innovation Council (IIC) &Unnat Bharat Abhiyan, MoE, Govt. of India, IIT Bombay Spoken Tutorial Resource Centre, SWAYAM NPTEL Local Chapter and Institutional Membership of ICT Academy Chennai.

The NAAC-recommended new outcome-based education (OBE) approach has recently been adopted by college. To conform with the outcome-based approach, we have developed our academic procedures, instructional strategies, assessment and evaluation methods. The recommendations made by our Academic and Administrative Audit (AAA) committee were taken into consideration while formulating the course and programme outcomes for the various programmes the college offers.

The overall objectives of the outcomes-based education at KRE Society's Karnatak Arts, Science and Commerce College are to:

- In order for prospective students, parents, employers, and others to understand the typ eand degree of outcomes (knowledge, skills, attitudes, and values) or attributes a gradu ate of a programme should be capable of demonstrating upon successful completion of the programme of study, it is necessary to help formulate the programme outcomes and course outcomes that are expected to be demonstrated by the holder of a qualification.

- Maintain academic standards and learning results that are comparable internationally in order to promote graduate and student mobility and ensure global competitiveness;

- Give faculty members crucial points of reference for developing teaching-learning strategies, determining the learning levels of students, and conducting cyclical r eviews of academic standards.

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Programme Outcomes

- POs are Statements about the knowledge, Skills and Attitudes the graduate of the formal teaching programme (BA,B Sc, MA, M Sc. etc) should have.
- POs Deal with general aspects of graduation for particular programme, competencies and expertise a graduate will possess after the programme.

Course Outcomes: The course outcomes are the statement that describes the knowledge & abilities developed in the student by the end of course (subject) teaching.

Defining Course and Programme Outcomes

- The focus is on development of abilities rather than mere content. There can be 5 to 7 course outcomes of any course.
- These are to be written in the specific terms and not in general.
- Blooms Taxonomy: active verbs
- Focus: => Knowledge + Skills + Aptitude

CO PO Mapping

- The Program Outcomes are developed through the curriculum (curricular/cocurricular-extra-curricular activities).
- The program outcomes are attained through the course implementation.
- As an educator, one must know, "to which POs his/her course in contributing?". So that one can design the learning experiences, select teaching method and design the tool for assessment.
- Hence, establishing the Course PO matrix is essential step in the OBE.
- The course-program outcomes matrix indicates the co-relation between the courses and program outcomes.
- The CO-PO matrix is the map of list of courses contributing to the development of respective POs.

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- The CO-PO Matrix is provided in the below table. (It is example with very few courses while preparing one has to do for all courses taught under the programme)

Example of Mapping of CO's due to Courses to PO's

CO's due to Courses	PO1	PO2	PO3	PO4	PO5
C Porg.	x	x	x		
Data Communication			x	x	
Computer architecture	x	x	x		
Java		x	x	x	x
Python	x	x	x		

Procedure for CO attainment:

- CO attainment is defined/set at three levels;
- The CO attainment is based on end term examination assessment and internal assessment;
- The Co attainment is defined at three levels for MSc. programme in ascending order. e.g. For end term and internal examination;

    I.   Level-1: 30% students scored more than class average
    II.   Level-2: 40% students score more than class average;
    III.   Level-3: 50% students score more than class average.

- The target level is set (e.g. Level-2). It indicates that, the current target is level-2; 40% students score more than class average.

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7	Surya	**78**	**19**
8	Gopal	57	12
9	Vignesh	58	12
10	Ramesh	**76**	11
Total		610	140
Average		61	14
% Student Score more than class average		50%	30%

** Imaginary data was used for illustration purpose

Table of CO Level set and attained

Courses	CO level set	CO Level attained
C Porg.	2	2
Data Communication	3	2
Computer architecture	3	3
Java	2	2
Python	2	1
Statistical Methods	2	1
Numerical Analysis	3	2

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- The CO attainment is measured and the results are obtained. Based on the results of attainment, the corrective measures/remedial action are taken.
- CO Attainment= 80% (Attainment level in end term examination) + 20% (Attainment level in internal examination).

For Example, as per the data given in below table, we can assume that,

- Average Marks in External examination 61. % Students score more than 61 is 50 % i.e. Level-3
- Average Marks in Internal examination IS 15.36. % Students score more than 15 is 30%, i.e. Level-1
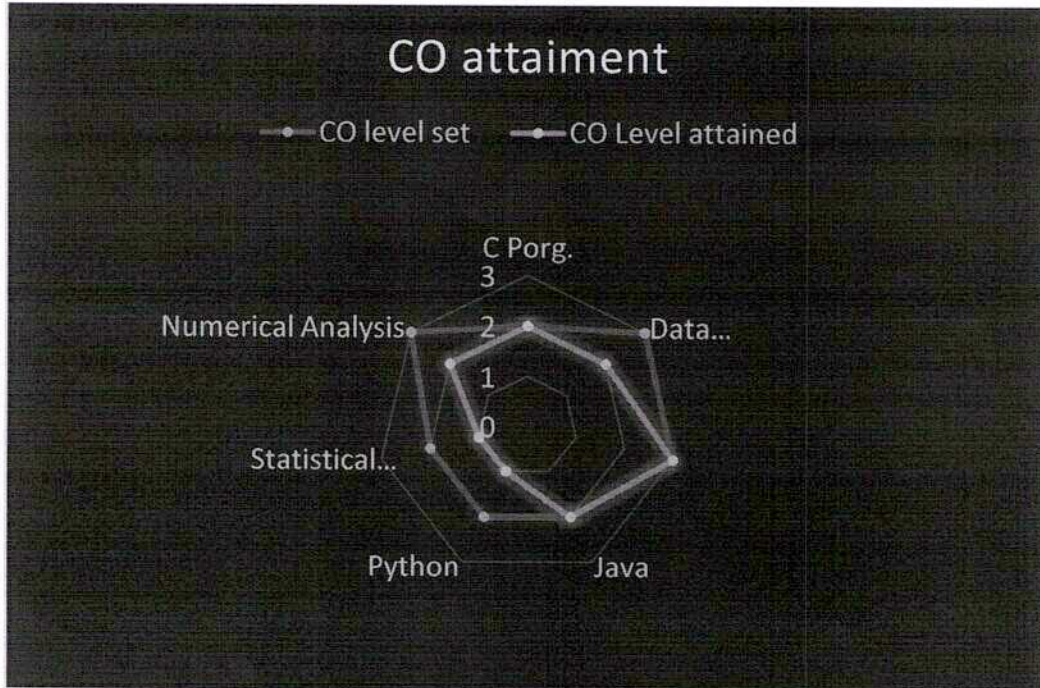
A (CO) XYZ Course = 80% (3) +20% (1)

=2.4+0.2

= 2.6

- Hence, the attainment level is Level-2 and the set target level is Level-2 and therefore the CO is fully attained.

Attainment of CO for c-programming course **

Sr No.	Name of the Student	External Marks	Internal Marks
1	Ram	71	17
2	Shyam	34	11
3	Suresh	67	12
4	Ganesh	57	13
5	Raman	34	15
6	Govind	78	18

Understanding the Programme Level attainment through Radar Graph:

Understanding of CO Attainment through Radar Graph

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