Program Outcomes (POs), Course Outcomes (COs) Assessment and Attainment Process Manual

(To be implemented from the academic year 2020 -21)

SNDT Arts and Commerce College for Women, Pune 411038

Introduction

S N D T Arts and Commerce College for Women, Pune is the premier college of the S N D T Women's University, Mumbai. It was established in 1916 by Bharat Ratna Maharshi Dhondo Keshav Karve. Our College offers various programmes in Arts, Commerce, Fine Arts and Computer Application for graduation.

Aligned with Vision, Mission of the College, our College has specified Programme outcomes (POs) for all the programmes offered. Program outcomes are designed from the overall perspective of knowledge and skills imparted during the Program. What the graduates are expected to know and what they are able to do after completing graduation is described in the Program Outcomes. Whereas what the graduates of a particular programme should be able to do is described in the Program Specific Outcomes. The Course Outcomes (COs) are designed on the basis of syllabus of the concerned course. They describe what a student can learn or do after the completion of a particular course. Learning outcomes describe what the student is expected to learn or acquire skills after completion of a particular unit or topic in a course. All Learning Outcomes (LOs) are based on Course Outcomes. LOs are developed on the basis of Bloom's Taxonomy.

POs Assessment and Attainment System

1. Defining and framing POs, PSOs and COs

Step 1: The College gathered views from the students, parents, and alumni, along with the teaching faculty.

Step 2: The Head of Departments along with the faculty members prepared the draft version of the POs and PSOs. The POs and PSOs are prepared in line with - A) Vision and Mission of the institution B) feedback from the stakeholders.

Step 3: The POs and PSOs were put forth in front of the College Development Committee (CDC). After getting approval from CDC they were published.

Step 4: The Head of the Departments along with faculty members prepared the draft version of the COs.

Course Outcomes indicate what a student can do after completion of a course. For each course COs are determined on the basis of the course content in each module of a course. The number of COs varies according to the nature and need of the course.

Sample CO statement -
Name of the course -Industrial Statistics
Code - 375147

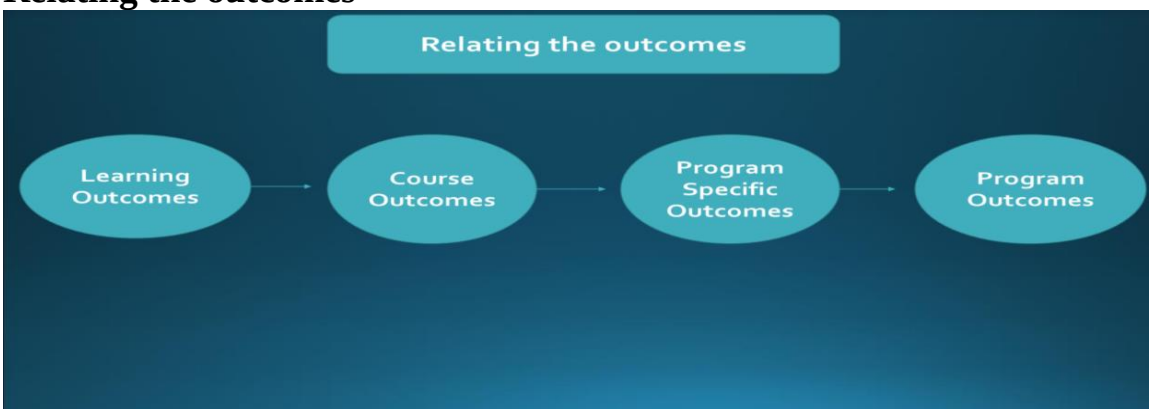
CO	**Description of the Course Outcome**
CO1	CO 1: Approaches to calculating probability
CO2	CO 2: Concept of conditional probability
CO3	CO 3:Calculation of probabilities for different probability distributions
CO4	Concept of expectation and decision tree approach
CO5	Elementary decision theory and its application in optimum management decision

Step V - Preparation of Learning Outcomes (LOs) - Learning Outcomes for the courses were prepared on the basis of Bloom's taxonomy. Bloom's Taxonomy was introduced under the leadership of educational psychologist Dr. Benjamin Bloom in order to promote higher forms of thinking such as apply, analyze, evaluate and create amongst the students rather than just focusing on rote memorization.

Sample LO statement -
Name of the course -Industrial Statistics
Code - 375147

LO	Description of the Learning Outcome
LO1	Applying rules of addition and multiplication
LO2	Explaining different types of events
LO3	Conceptualizing conditional probability
LO4	Understanding of properties of different probability distributions
LO5	Calculating probabilities of occurrences under different theoretical distributions
LO6	Describing and explaining concept of decision tree
LO7	Applying theory of statistical decision for managerial decision making

Relating the outcomes -



2. Disseminating POs, PSOs and COs to students: The POs, PSOs and COs are uploaded on the College website. They are also discussed by the course teachers in the class at the beginning of each semester. COs and LOs are displayed on the course outlines on the Google Classrooms.

3. Mapping of LOs to COs: Learning Outcomes are prepared by the course teachers on the basis of Bloom's taxonomy and they are linked to COs in the Course outlines of the concerned courses.

4. Outlining of measurement of LOs in the internal assessment: The LOs are displayed in the Course Outline and they are measured through CIEs and internal assessment.

5. Communicating internal assessment schedule to students: Through Course Outline the schedule of internal assessment is communicated to the students. The schedule is also displayed on the notice board.

6. Preparing blue prints and model answers for Semester-end examination: For the College and University level Semester end examinations blue prints of question paper and model answers are prepared by the course teachers.

POs and COs are mapped in the following manner:

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Mapping of Courses with POs

FY B. Com.

Course	PO1	PO2	PO3	PO4	PO5
Accountancy					
Commerce					
Mathematics and Statistics					

Mapping of COs with POs

FY B. Com.

Course	PO1	PO2	PO3	PO4	PO5
CO 1					
CO 2					
CO 3					

Mapping of LOs with COs

FY B. Com.

Course	CO1	CO2	CO3	CO4	CO5
LO 1					
LO 2					
LO 3					

COs Assessment and Attainment Measurement Methods

1. Direct Method: COs Assessment Rubrics (Formula) 25: 75

Formative assessment (25 Marks)

Sr. No.	Assessment Tools	Weightage
1	Written Test	15 / 25
2	Projects/ CIEs	10 / 25

Attainment Levels of COs

Assessment Method	Attainment	
Direct Formative Internal Assessment	Level	Percentage of Students
	I (Pass)	
	II (Fail)	

Summative assessment (75 Marks)

Sr. No.	Assessment Tools	Marks
1	Written Test	75

Attainment Levels of COs (Result Analysis)

POs Attainment Procedure

Direct Method - Result analysis
Indirect Method - Annual feedback of the students, alumni and parents

Implementation Schedule

Sr. No.		
1	COs Assessment	Every Semester
2	COs Attainment	Every Year
3	PO Attainment	At the end of Final Year

One example for Assessment of POs, COs and LOs is given below.

Faculty of Commerce

Mapping of POs with Courses

Year	Course	PO1: To acquire fundamental knowledge of Commerce and Finance	PO2: To equip the student to face the modern-day challenges	PO3: To equip student with up-to-date in knowledge	PO4: To acquire conceptual knowledge	PO5: To gain understanding and knowledge of current issues relating to accounting, finance and marketing
First Year	Accountancy I and II	Y			Y	
	Commerce I and II	Y			Y	
	Maths and Statistics	Y			Y	
Second Year	Accountancy III and IV	Y			Y	
	Commerce III and IV	Y			Y	
	Business Law	Y		Y	Y	
	Industrial Statistics I and II	Y			Y	
	Advertising I and II	Y			Y	
Third Year	Commerce V and VI	Y		Y	Y	Y
	FAA I and	Y	Y	Y	Y	Y

	IV					
	FAA II and V	Y	Y	Y	Y	Y
	FAA III and VI	Y	Y	Y	Y	Y

Mapping of POs with COs: Industrial Statistics (375147)

Industrial Statistics I	PO1: To acquire fundamental knowledge of Commerce and Finance	PO2: To equip the student to face the modern-day challenges	PO3: To equip student with up-to-date in knowledge	PO4: To acquire conceptual knowledge	PO5: To gain understanding and knowledge of current issues relating to accounting, finance and marketing
CO 1: Approaches to calculating probability	Y				
CO 2: Concept of conditional probability				Y	
CO 3:Calculation of probabilities for different probability distributions	Y			Y	
CO 4: Concept of expectation and decision tree approach	Y			Y	
CO 5: Elementary decision theory and its application in optimum management decision	Y			Y	

Mapping of COs with LOs: Industrial Statistics (375147)

Industrial Statistics I	CO 1: Approaches to calculating probability	CO 2: Concept of conditional probability	CO 3: Calculation of probabilities for different probability distributions	CO 4: Concept of expectation and decision tree approach	CO 5: Elementary decision theory and its application in optimum management decision
LO 1: Applying rules of addition and multiplication	Y				
LO 2: Explaining different types of events	Y				
LO 3: Conceptualising conditional probability		Y			
LO 4: Understanding of properties of different probability distributions			Y		
LO 5: Calculating probabilities of occurrences under different theoretical distributions			Y		
LO 6: describing and explaining concept of decision tree				Y	
LO 7: Applying theory of statistical decision for managerial decision making					Y

Assessment of LOs: Industrial Statistics (375147)

Industrial Statistics I	**LO 1**	**LO 2**	**LO 3**	**LO 4**	**LO 5**	**LO 6**	**LO 7**	
Formative Exam Marks (25)								
CIE (5 Marks)	5	5	5			5		**Qualifying**
Written Test (15 Marks)	15				15			**Best of Two**
Project (10 Marks)						10	10	**Best of Two**
Summative Exam Marks (75)								
Written Assessment (75 Marks)	15		15	10	25		10	

Assessment Matrix of POs, Cos, and LOs: Industrial Statistics (375147)

Industrial Statistics I	PO1: To acquire fundamental knowledge	PO2: To equip the student to face the modern-day challenges	PO3: To equip student with up-to-date in knowledge	PO4: To acquire conceptual knowledge	PO5: To gain understanding and knowledge of current issues relating to accounting, finance and marketing	**Industrial Statistics I**
CO 1: Approaches to calculating probability	30					LO 1: Applying rules of addition and multiplication
CO 1: Approaches to calculating probability				5		LO 2: Explaining different types of events
CO 2: Concept of conditional probability				10		LO 3: Conceptualising conditional probability
CO3: Calculation of probabilities for different	10					LO 4: Understanding of properties of different probability distributions

probability distributions						
CO3: Calculation of probabilities for different probability distributions				40		LO 5: Calculating probabilities of occurrences under different theoretical distributions
CO 4:Concept of expectation and decision tree approach				10		LO 6: describing and explaining concept of decision tree
CO 5: Elementary decision theory and its application in optimum management decision				20		LO 7: Applying theory of statistical decision for managerial decision making

For detailed information on POs and COs please refer to the College website.

http://sndtarts.ac.in/programs.html
