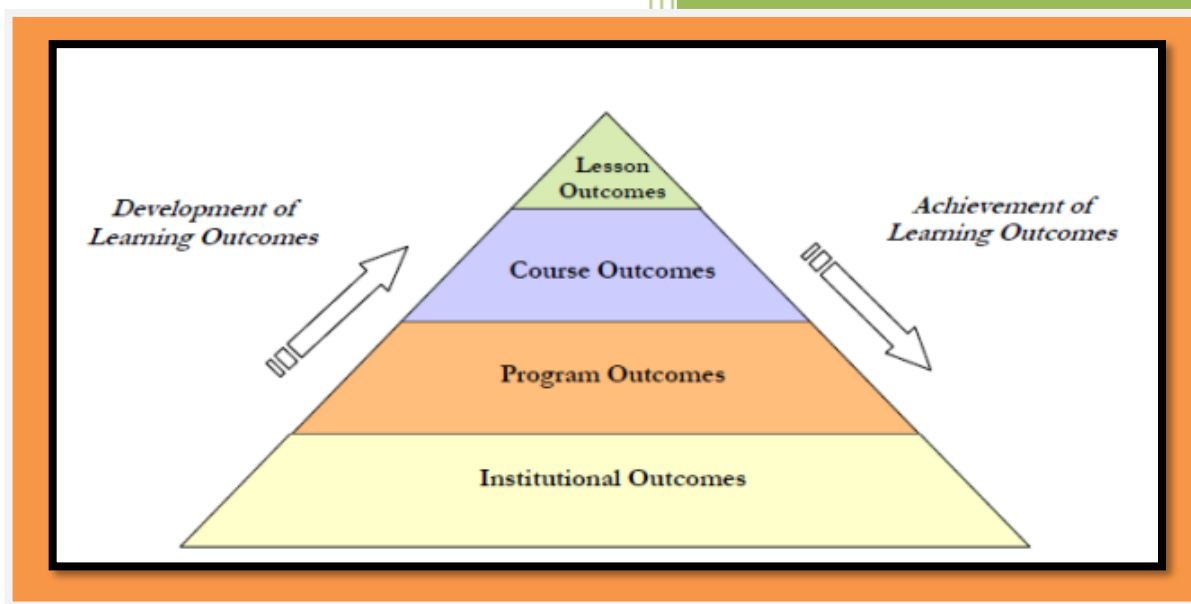


Mankar College



2021

Attainment Calculation



Attainment of Course Outcomes and Programme Outcomes

Submitted by

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Attainment of Programme Outcomes	Error! Bookmark not defined.

1st Year (Semester I & Semester II)

CO	Course Outcome
CO1	Understand earth's tectonic and structural evolution through geological time scale and gain knowledge about earth's interior with the help of seismology.
CO2	Develop an idea of different types of maps and acquire knowledge about different scales and cartographic techniques.
CO3	Understand the approaches and processes of human geography as well as the diverse patterns of habitat and adaptations and explore different aspects of culture.
CO4	Develop an idea of different types of cartograms and surveying techniques.

2nd Year (Semester III & Semester IV)

CO	Course Outcome
CO5	Gain knowledge about different atmospheric phenomena like temperature distribution, greenhouse effect, condensation, air mass, fronts, stability and instability, wind circulation and climate change.
CO6	Learn the significance of statistics in geography, understand the importance of use of data in geography and gain knowledge about different scales of measurement.
CO7	Understanding of geology, physiography, climate, soil and vegetation of India and acquire knowledge about the various perspectives of geography of West Bengal.
CO8	Develop an idea of Excel basics, computing and graphical representation.
CO9	Appreciate the varied aspects of development and regional disparity, in order to formulate measures of balanced development and build an idea about the models and strategies for regional development.
CO10	Acquire knowledge about various types of economic activities and understand the factors influencing location of economic activity and transport cost.
CO11	Assess the significance of environmental degradation and pollution and understanding of environmental issues related to agriculture, waste management and bio-diversity.
CO12	. Develop an idea of Excel computing, graphical representation and spatial statistics.

3rd Year (Semester V & Semester VI)

CO	Course Outcome
CO13	Learn the significance of research in geography and understand different types of field techniques and tools.
CO14	Know about concepts, components, development, platforms and types of remote sensing and GIS and develop an idea about interpretation and application of remote sensing and GIS.
CO15	Gain knowledge about the concept of cultural hearth and realm, cultural landscape, cultural innovation and diffusion, cultural segregation, cultural diversity and acculturation.
CO16	Understand the development of population geography and the relationship between population geography and demography and analyze the determinants of population dynamics.
CO17	Explore the evolution of geographical thought from ancient to modern times and analyze modern and contemporary principles of determinism neo-determinism, possibilism, systematic and regional approaches in geography.
CO18	Understand the nature and classification of hazards and disasters and acquire knowledge about factors, vulnerability, consequences and management of earthquake, landslide, cyclone and fire.
CO19	Gain knowledge about the distribution, utilization, problems and management of mineral and energy resources in Indian context and analyze the contemporary energy crisis and assess the future scenario.
CO20	Analyze the role and importance of bio-geo chemical cycles, develop idea about biomes and comprehend the causes and consequences of biodiversity loss.

List of Programme Outcomes

PO1	Student will gain the knowledge of physical geography. Student will have a general understanding about the geomorphological and geotechnical process and formation. They will be able to correlate the knowledge of physical geography with the human geography.
PO2	Associating landforms with structure and process; establishing man-environment relationships; and exploring the place and role of Geography among other social and earth sciences.
PO3	Developing a sustainable approach towards the ecosystem and the biosphere with a view to conserve natural systems and maintain ecological balance.
PO4	Student will be able to analyze the problems of physical as well as cultural environments of both rural and urban areas. Moreover they will try to find out the possible measures to solve those problems.
PO5	Inculcating a tolerant mindset and attitude towards the vast socio-cultural diversity of India by studying and discussing contemporary concepts of social and cultural geography. Explaining and analyzing the regional diversity of India through interpretation of natural and planning regions.
PO6	Analyzing the differential patterns of the human habitation of the Earth, through studies of human settlements and population dynamics. Understanding and accounting for regional disparities, poverty, unemployment and the impacts of globalization
PO7	Understanding the history of the subject; over viewing ancient and contemporary geographical thought and its relationship with modern concepts of determinism, possibilism, systematic and regional approaches in geography.
PO8	Sensitization and awareness about the hazards and disasters to which the subcontinent is vulnerable; and their management.
PO9	As a student of the Course they will enrich their observation power through field experience and in future this will be helpful for identifying the socio- environmental problems of their community.
PO10	Training in practical techniques of mapping, cartography, software, interpretation of maps, photographs and images etc.; so as to understand the spatial variation of phenomena on the Earth's surface. They will learn how to prepare map based on GIS by using the modern geographical map making techniques.

CO PO Matrix

CO PO Matrix: 1st Year				
	CO1	CO2	CO3	CO4
PO1	5	2	1	1
PO2	5	1	3	1
PO3	1	1	3	1
PO4	1	1	2	1
PO5	1	1	2	1
PO6	1	1	3	1
PO7	1	1	1	1
PO8	2	2	1	2
PO9	3	2	1	2
PO10	1	5	1	5

CO PO Matrix: 2nd Year								
	CO5	CO6	CO7	CO8	CO9	CO10	CO11	CO12
PO1	3	2	1	1	2	2	1	1
PO2	3	1	2	1	2	2	1	1
PO3	1	1	1	2	2	5	1	1
PO4	1	1	2	3	2	5	1	2
PO5	1	2	2	2	2	1	2	2
PO6	1	2	2	3	2	1	2	2
PO7	1	1	1	1	1	1	1	1
PO8	3	1	1	1	1	3	1	1
PO9	1	2	2	2	2	1	1	1
PO10	1	5	2	2	2	3	5	5

CO PO Matrix: 3rd Year								
	CO13	CO14	CO15	CO16	CO17	CO18	CO19	CO20
PO1	2	2	1	1	1	4	1	2
PO2	2	1	3	2	4	3	3	2
PO3	1	2	1	2	3	3	3	2
PO4	3	2	4	4	2	2	2	1
PO5	3	1	5	4	2	1	1	1
PO6	2	1	5	5	1	2	1	1
PO7	2	1	2	1	5	2	2	1
PO8	3	4	1	1	2	5	2	2
PO9	5	1	3	2	3	2	2	1
PO10	3	5	2	2	1	5	2	2

Significance level	Meaning
5	Very highly correlated
4	Highly correlated
3	Moderately correlated
2	Poorly correlated
1	Very poorly correlated

Attainment of Course Outcome

Student wise GPA for course outcomes: 1st Year

University Roll Number:	CO1	CO2	CO3	CO4
200111700003	7	10	9	9
200111700006	9	10	10	10
200111700009	6	9	9	9
200111700036	7	9	9	9
200111700038	7	9	9	9
200111700039	7	9	9	9
200111700063	6	9	9	9
200111700070	8	9	9	10
200111700081	7	9	9	9
200111700088	7	8	9	9
200111700097	9	10	10	10
200111700102	8	9	9	9
200111700117	8	9	10	10
200111700120	7	10	9	9
200111700121	8	10	10	10
200111700132	8	10	10	10
200111700146	8	10	10	10
200111700156	8	10	10	10
200111700160	7	9	9	9
200111700170	7	9	10	10
200111700173	8	9	9	9
200111700210	8	9	9	10
200111700214	6	8	9	9
200111700217	7	9	9	9
200111700240	8	10	10	10
200111700247	8	8	9	9
200111700264	6	7	8	7
200111700265	8	10	10	10
200111700268	6	9	9	9
200111700281	6	9	9	9
200111700307	7	9	9	9
200111700314	6	9	9	9

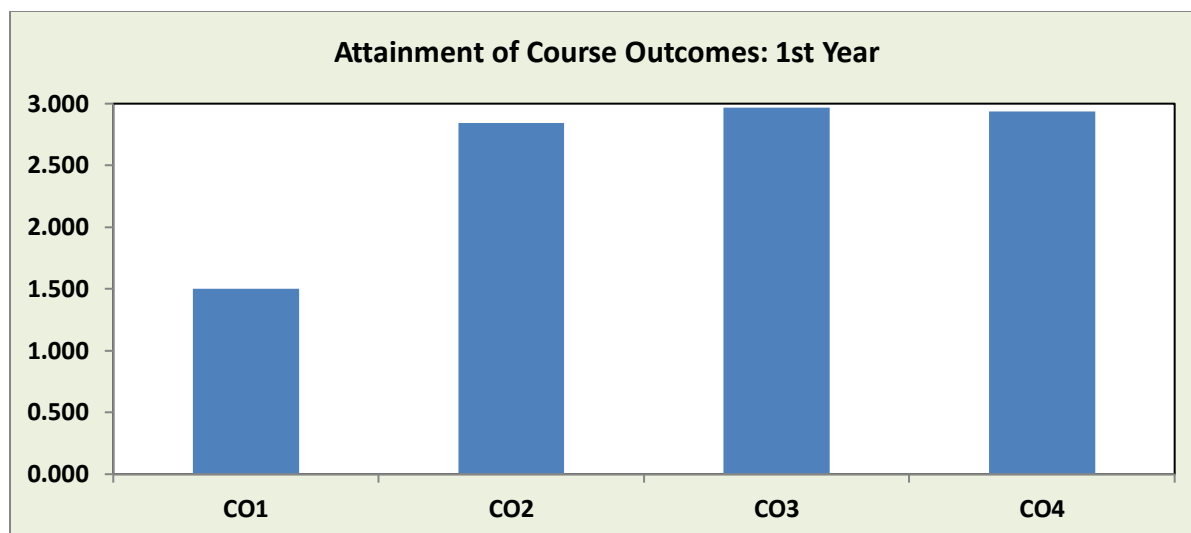
NB: GPA 10 and 9 – Attainment Level 3

GPA 8 – Attainment Level 2

GPA 7 – Attainment Level 1

Student wise attainment level for course outcomes: 1st Year

University Roll Number:	CO1	CO2	CO3	CO4
200111700003	1	3	3	3
200111700006	3	3	3	3
200111700009	1	3	3	3
200111700036	1	3	3	3
200111700038	1	3	3	3
200111700039	1	3	3	3
200111700063	1	3	3	3
200111700070	2	3	3	3
200111700081	1	3	3	3
200111700088	1	2	3	3
200111700097	3	3	3	3
200111700102	2	3	3	3
200111700117	2	3	3	3
200111700120	1	3	3	3
200111700121	2	3	3	3
200111700132	2	3	3	3
200111700146	2	3	3	3
200111700156	2	3	3	3
200111700160	1	3	3	3
200111700170	1	3	3	3
200111700173	2	3	3	3
200111700210	2	3	3	3
200111700214	1	2	3	3
200111700217	1	3	3	3
200111700240	2	3	3	3
200111700247	2	2	3	3
200111700264	1	1	2	1
200111700265	2	3	3	3
200111700268	1	3	3	3
200111700281	1	3	3	3
200111700307	1	3	3	3
200111700314	1	3	3	3
CO Attainment	1.500	2.844	2.969	2.938



The above chart illustrates the achievement levels of CO1, CO2, CO3 and CO4. It shows that, although the achievement level is high for CO2, CO3 and CO4, it is considerably low for CO1. Therefore, the following steps have been taken to improve the achievement level of this course in subsequent years:—

- ❖ The class for this course has given priority and teachers are being requested to provide study materials for this course.
- ❖ Faculty members were requested to take extra classes.

Student wise GPA for course outcomes: 2nd Year

University Roll Number:	CO5	CO6	CO7	CO8	CO9	CO10	CO11	CO12
190111700007	8	8	7	10	9	9	9	10
190111700020	9	9	7	9	9	9	9	9
190111700030	8	9	7	8	8	9	9	9
190111700037	8	9	7	10	9	9	9	10
190111700046	9	9	7	10	9	9	9	10
190111700059	7	8	6	10	8	9	8	9
190111700068	9	9	7	10	9	9	9	9
190111700073	8	9	7	9	9	9	9	10
190111700081	7	9	7	9	8	9	9	9
190111700109	9	10	7	10	9	10	10	10
190111700117	8	10	7	10	9	9	9	10
190111700121	9	10	7	10	9	9	9	10
190111700123	9	10	7	10	9	9	9	10
190111700129	8	9	7	10	9	9	9	9
190111700136	8	9	7	10	9	9	9	9
190111700163	8	9	6	10	9	9	9	10
190111700170	9	10	7	10	9	9	9	10
190111700173	9	9	7	10	9	9	9	10
190111700178	9	10	7	10	9	9	10	10
190111700195	8	9	7	10	9	9	9	9
190111700206	9	10	7	10	9	10	10	10
190111700208	7	9	7	10	8	9	9	9
190111700216	7	9	6	10	8	9	9	9
190111700219	8	10	7	10	9	9	9	10
190111700236	7	9	7	10	9	9	9	9
190111700239	7	9	7	10	8	9	9	10
190111700240	7	9	7	9	9	9	9	9
190111700243	8	9	7	10	9	9	9	10
190111700253	8	9	7	10	9	9	9	10
190111700254	7	10	7	10	9	9	9	9
190111700272	7	8	7	10	8	9	9	9
190111700274	7	8	7	10	9	9	9	9
190111700276	8	9	7	10	9	9	9	10
190111700279	7	8	7	10	8	9	9	9

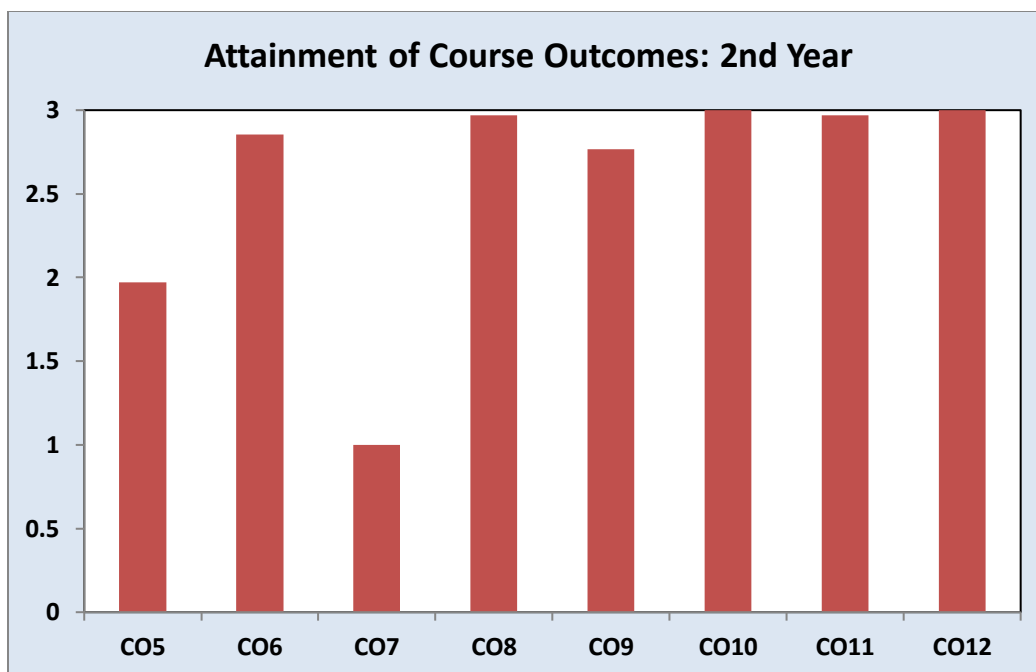
NB: GPA 10 and 9 – Attainment Level 3

GPA 8 – Attainment Level 2

GPA 7 – Attainment Level 1

Student wise attainment level for course outcomes: 2nd Year

University Roll Number:	CO5	CO6	CO7	CO8	CO9	CO10	CO11	CO12
190111700007	2	2	1	3	3	3	3	3
190111700020	3	3	1	3	3	3	3	3
190111700030	2	3	1	2	2	3	3	3
190111700037	2	3	1	3	3	3	3	3
190111700046	3	3	1	3	3	3	3	3
190111700059	1	2	1	3	2	3	2	3
190111700068	3	3	1	3	3	3	3	3
190111700073	2	3	1	3	3	3	3	3
190111700081	1	3	1	3	2	3	3	3
190111700109	3	3	1	3	3	3	3	3
190111700117	2	3	1	3	3	3	3	3
190111700121	3	3	1	3	3	3	3	3
190111700123	3	3	1	3	3	3	3	3
190111700129	2	3	1	3	3	3	3	3
190111700136	2	3	1	3	3	3	3	3
190111700163	2	3	1	3	3	3	3	3
190111700170	3	3	1	3	3	3	3	3
190111700173	3	3	1	3	3	3	3	3
190111700178	3	3	1	3	3	3	3	3
190111700195	2	3	1	3	3	3	3	3
190111700206	3	3	1	3	3	3	3	3
190111700208	1	3	1	3	2	3	3	3
190111700216	1	3	1	3	2	3	3	3
190111700219	2	3	1	3	3	3	3	3
190111700236	1	3	1	3	3	3	3	3
190111700239	1	3	1	3	2	3	3	3
190111700240	1	3	1	3	3	3	3	3
190111700243	2	3	1	3	3	3	3	3
190111700253	2	3	1	3	3	3	3	3
190111700254	1	3	1	3	3	3	3	3
190111700272	1	2	1	3	2	3	3	3
190111700274	1	2	1	3	3	3	3	3
190111700276	2	3	1	3	3	3	3	3
190111700279	1	2	1	3	2	3	3	3
CO Attainment	1.971	2.853	1.000	2.971	2.765	3.000	2.971	3.000



Although the CO attainment level of most of the courses was satisfactory, it is slightly poor for CO5 and CO7. Therefore, to improve the attainment level of this course the following actions were taken –

- ❖ Students of the subsequent years were provided with study materials and videos of class animations for better understanding.
- ❖ Few Bengali notes have been given to them for those students who are were facing language problems.

Student wise GPA for course outcomes: 3rd Year

University Roll Number:	CO13	CO14	CO15	CO16	CO17	CO18	CO19	CO20
180111700027	9	10	9	10	9	9	10	9
180111700029	8	9	9	9	9	9	9	8
180111700052	8	9	9	9	9	9	10	9
180111700059	8	8	9	9	9	7	8	7
180111700070	8	9	9	10	9	9	8	9
180111700075	8	9	9	10	9	9	9	9
180111700103	9	9	9	9	9	10	9	9
180111700115	8	9	9	10	9	10	10	9
180111700122	8	9	9	9	9	9	9	10
180111700140	8	9	9	10	9	9	9	9
180111700141	8	9	9	9	9	9	10	9
180111700151	8	9	9	9	9	9	9	9
180111700157	9	10	9	10	9	10	10	9
180111700168	8	10	9	10	9	9	10	9
180111700171	8	10	9	10	10	9	10	9
180111700173	8	10	9	9	9	8	10	9
180111700178	9	9	9	10	9	9	10	9
180111700185	9	10	9	9	9	9	10	9
180111700187	8	9	9	10	9	9	10	9
180111700197	8	9	9	9	9	9	10	9
180111700212	8	8	9	10	9	9	9	8
180111700220	8	9	9	10	9	10	9	9

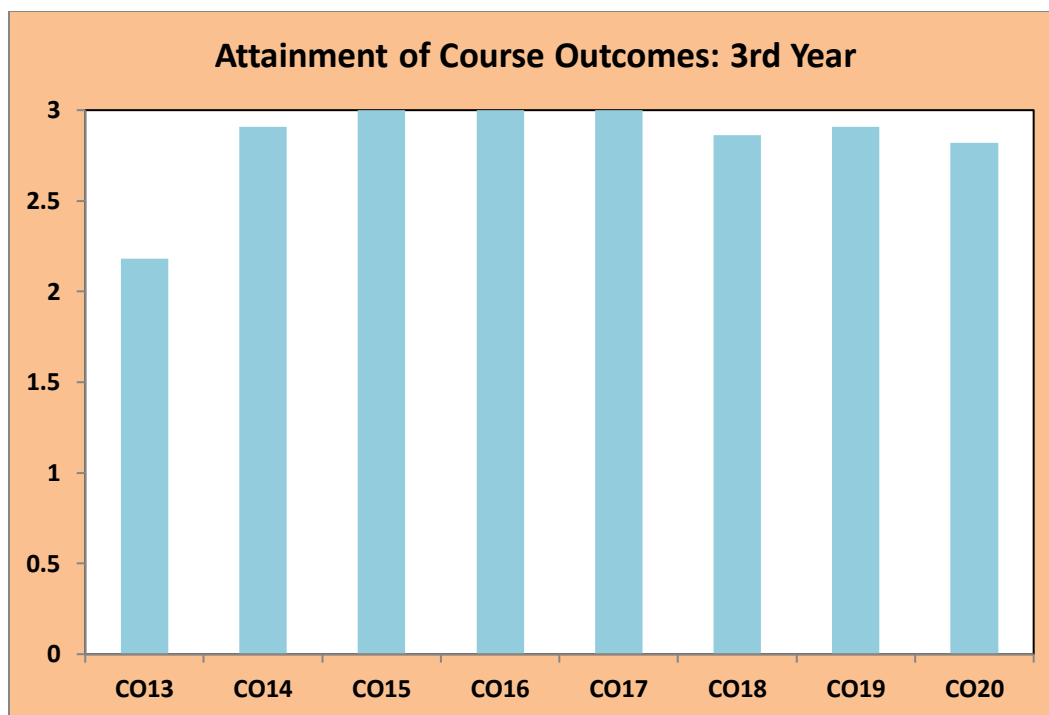
NB: GPA 10 and 9 – Attainment Level 3

GPA 8 – Attainment Level 2

GPA 7 – Attainment Level 1

Student wise attainment level for course outcomes: 2nd Year

University Roll Number:	CO13	CO14	CO15	CO16	CO17	CO18	CO19	CO20
180111700027	2	3	3	3	3	3	3	3
180111700029	2	3	3	3	3	3	3	2
180111700052	2	3	3	3	3	3	3	3
180111700059	2	2	3	3	3	1	2	1
180111700070	2	3	3	3	3	3	2	3
180111700075	2	3	3	3	3	3	3	3
180111700103	3	3	3	3	3	3	3	3
180111700115	2	3	3	3	3	3	3	3
180111700122	2	3	3	3	3	3	3	3
180111700140	2	3	3	3	3	3	3	3
180111700141	2	3	3	3	3	3	3	3
180111700151	2	3	3	3	3	3	3	3
180111700157	3	3	3	3	3	3	3	3
180111700168	2	3	3	3	3	3	3	3
180111700171	2	3	3	3	3	3	3	3
180111700173	2	3	3	3	3	2	3	3
180111700178	3	3	3	3	3	3	3	3
180111700185	3	3	3	3	3	3	3	3
180111700187	2	3	3	3	3	3	3	3
180111700197	2	3	3	3	3	3	3	3
180111700212	2	2	3	3	3	3	3	2
180111700220	2	3	3	3	3	3	3	3
CO Attainment	2.182	2.909	3.000	3.000	3.000	2.864	2.909	2.818



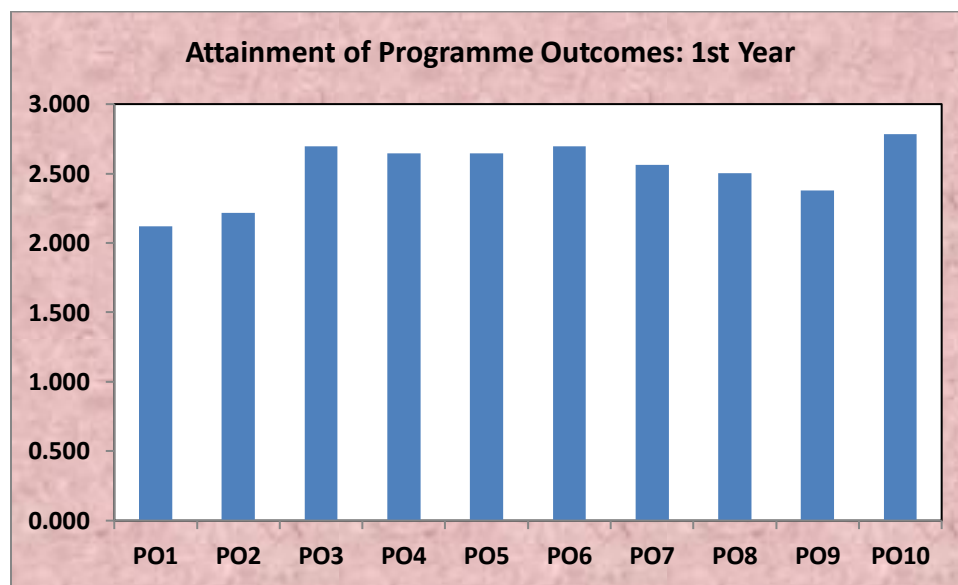
The above chart depicts low attainment level for the course i.e. CO13. The course CO13 consists research application, and different though of research methodology. Therefore, to overcome this problem, the following actions were taken –

- ❖ The students of subsequent years were provided with extra study materials and model question papers.
- ❖ Several real field examples have been given during class for making clear understanding of issues of research methodology.

Attainment of Programme Outcome

Calculation of attainment of Programme Outcomes: 1st year

Course Variables	Course Outcomes	CO1	CO2	CO3	CO4	Programme Wise Total Correlqtion Value	PO Attainment Level
	Average Attainments	1.500	2.844	2.969	2.938		
Programme Outcomes	PO1	5	2	1	1	9	2.122
	PO2	5	1	3	1	10	2.219
	PO3	1	1	3	1	6	2.698
	PO4	1	1	2	1	5	2.644
	PO5	1	1	2	1	5	2.644
	PO6	1	1	3	1	6	2.698
	PO7	1	1	1	1	4	2.563
	PO8	2	2	1	2	7	2.505
	PO9	3	2	1	2	8	2.379
	PO10	1	5	1	5	12	2.782

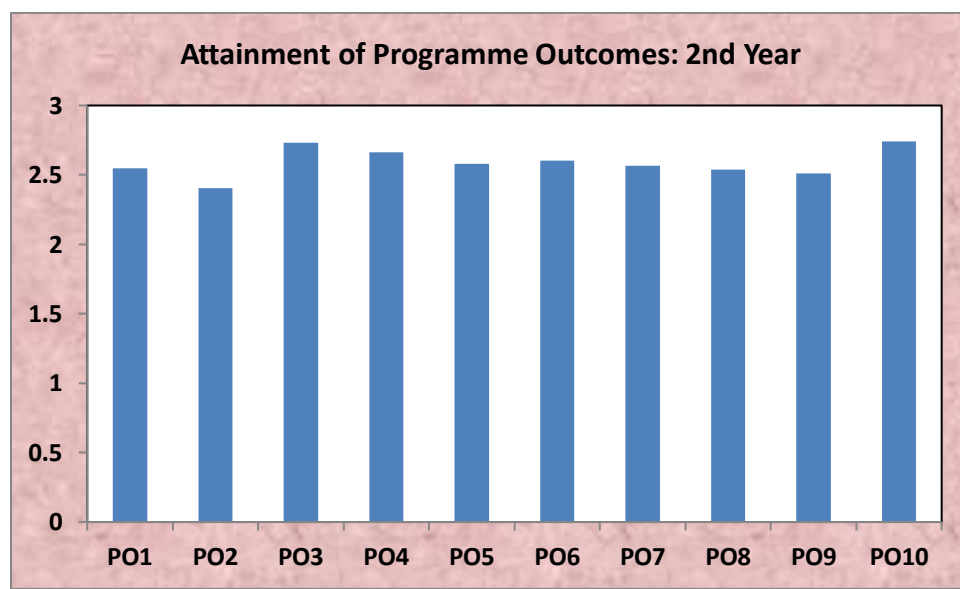


From the above chart we found we found similar attainment level of most of the programme outcomes except and PO1 and PO2. The following actions have been adopted to improve it.

- ❖ It is planned to counsel the students.
- ❖ Students were motivated to attend regular classes for the paper CC1.

Calculation of attainment of Programme Outcomes: 2nd year

Course Variable s	Course Outcomes	CO5	CO6	CO7	CO8	CO9	CO1 0	CO1 1	CO1 2	Program me Wise Total Correlqti on Value	PO Attainme nt Level
	Average Attainmen ts	1.97 1	2.85 3	1.00 0	2.97 1	2.76 5	3.00 0	2.97 1	3.00 0		
Programme Outcomes	PO1	3	2	1	1	2	2	1	1	13	2.545
	PO2	3	1	2	1	2	2	1	1	13	2.403
	PO3	1	1	1	2	2	5	1	1	14	2.733
	PO4	1	1	2	3	2	5	1	2	17	2.661
	PO5	1	2	2	2	2	1	2	2	14	2.578
	PO6	1	2	2	3	2	1	2	2	15	2.604
	PO7	1	1	1	1	1	1	1	1	8	2.566
	PO8	3	1	1	1	1	3	1	1	12	2.539
	PO9	1	2	2	2	2	1	1	1	12	2.510
	PO10	1	5	2	2	2	3	5	5	25	2.743

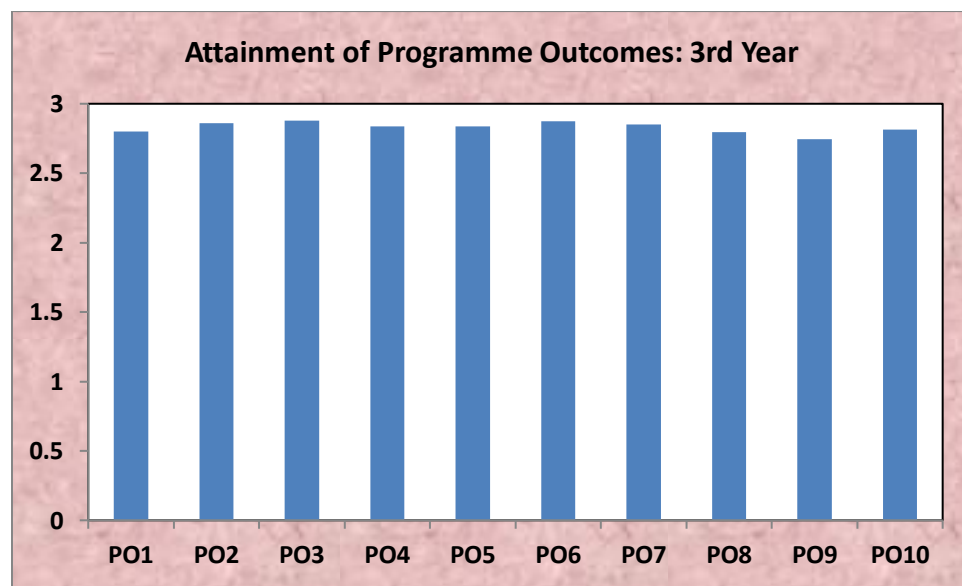


From the above chart we found we found similar attainment level of most of the programme outcomes except PO2. The following actions have been adopted to improve it.

- ❖ Specific subject areas were chosen where the students face difficulties and it is decided to arrange remedial classes for these areas.

Calculation of attainment of Programme Outcomes: 3rd year

Course Variables	Course Outcomes	CO13	CO14	CO15	CO16	CO17	CO18	CO19	CO20	Programme Wise Total Correlation Value	PO Attainment Level
	Average Attainments	2.182	2.909	3.000	3.000	3.000	2.864	2.909	2.818		
Programme Outcomes	PO1	2	2	1	1	1	4	1	2	14	2.799
	PO2	2	1	3	2	4	3	3	2	20	2.861
	PO3	1	2	1	2	3	3	3	2	17	2.880
	PO4	3	2	4	4	2	2	2	1	20	2.836
	PO5	3	1	5	4	2	1	1	1	18	2.836
	PO6	2	1	5	5	1	2	1	1	18	2.874
	PO7	2	1	2	1	5	2	2	1	16	2.852
	PO8	3	4	1	1	2	5	2	2	20	2.798
	PO9	5	1	3	2	3	2	2	1	19	2.746
	PO10	3	5	2	2	1	5	2	2	22	2.812



From the above chart we found we found similar attainment level of most of the programme outcomes.