



Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as deemed to be university under section 3 of UGC Act 1956, vide notification No.F.9-5/2000-U.3)

SCHOOL OF ARTS

Date : 27.08.2018

CIRCULAR

Sub: Organising Value added Course: Certificate Course on Six Sigma - Reg.,

With reference to the above mentioned subject, we bring it to your notice that School of Arts, Bharath Institute of Higher Education & Research is organising **Value added course on Certificate Course on Six Sigma**". The syllabus and registration form is enclosed below.

The candidates those who are interested to join must fill the registration form and submit to the HOD, on or before 01.09.2018. The Registration form received after the mentioned date shall not be entertained under any circumstances.

Dean

Dear Faculty of Arts & Science
Bharath Institute of Higher Education & Research
(Declared as Deemed to be University U/S 3 of UGC Act. 1956)
Chennai-600 073. INDIA

Encl: A copy of Syllabus & Registration form

Copy To:

- 1.All HODs
- 2.Office File/ Notice Board



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INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Declared as deemed to be university under section 3 of UGC Act 1956, vide notification No.P.9-82000-U.2)

SCHOOL OF ARTS

Registration Form

Value Added Course

Date: 1-8-18

Name : Sangavi S
Reg.No. : U17BA010
Date of Birth : 21-12-1999
Gender : Female
Department : Business Administration
Year : ~~1~~ Second
Contact No. : 7901414241
Email ID : kaviz000@gmail.com
Course Applied For : Certificate course on Soc Sigma

Signature



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Established as deemed to be university under section 3 of UGC Act 1956, vide notification No.F.1-52000-42.02

SCHOOL OF ARTS

Registration Form

Value Added Course

Date: 30-08-18

Name : SARANYA . N
Reg.No. : U17 BA 011
Date of Birth : 04 . 01 . 2000
Gender : Female
Department : BBA
Year : II
Contact No. : 95 61250755
Email ID : saranyaqueen1@gmail.com
Course Applied For : CERTIFICATE COURSE ON
SIX SIGMA

N. Saranya
Signature



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SCHOOL OF ARTS

Value Added Course

Certificate Course on Six Sigma

Syllabus

UNIT I DEFINE PHASE

The Basics of Six Sigma - Meanings of Six Sigma - General History of Six Sigma & Continuous Improvement - Deliverables of a Lean Six Sigma Project - The Problem Solving Strategy $Y = f(x)$ - Selecting Lean Six Sigma Projects

UNIT II MEASURE PHASE

Define Process - Cause & Effect / Fishbone Diagrams - Process Mapping, SIPOC, Value Stream Map - Failure Modes & Effects Analysis (FMEA) - Sigma Statistics - X-Y Diagram - Basic Statistics

UNIT III ANALYZE PHASE

Patterns of Variation - Multi-Vari Analysis - Classes of Distributions - Inferential Statistics - Understanding Inference - Sampling Techniques & Uses - General Concepts & Goals of Hypothesis Testing

UNIT IV IMPROVE PHASE

Simple Linear Regression – Correlation - Regression Equations - Residuals Analysis - Multiple Regression Analysis - Non- Linear Regression - Multiple Linear Regression - Confidence & Prediction Intervals

UNIT V CONTROL PHASE

Lean Controls - Control Methods for 5S - Poka-Yoke (Mistake Proofing) - Statistical Process Control (SPC) - Data Collection for SPC - Six Sigma Control Plans - Cost Benefit Analysis

TEXT BOOK

1. Simplified Six Sigma: Methodology, Tools and Implementation, N.Gopalakrishnan, PHI, 2012, New Delhi.
2. Lean Production Simplified, Pascal Dennis, Second Edition, Productivity Press, Newyork, 2007

REFERENCE BOOKS

1. Implementing Six Sigma in Education, Dheeraj Mehrotra, S.Chand and Company, New Delhi, 2012.



Shree

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SCHOOL OF ARTS

List of Registered Students

Value Added Course : Certificate Course on Six Sigma

Sl. No.	Reg. No.	Name	Sl. No.	Reg. No.	Name
1	U17BA059	DINESH PRASAD	26	U17BA029	THIRAJ M
2	U17BA058	MELVIN AKASH S	27	U17BA027	ARUN KUMAR G
3	U17BA057	BERGILIN LEO V	28	U17BA026	VIKRAM E
4	U17BA056	SANTHOSH KUMAR P	29	U17BA025	SATHISH G
5	U17BA055	ANIL N	30	U17BA024	BASKAR M
6	U17BA054	MADHAN G	31	U17BA023	MADAN C
7	U17BA053	GOPINATH M	32	U17BA022	MONISHA S
8	U17BA052	GOKUL KRISH S	33	U17BA021	ABUTHALIB A
9	U17BA050	NAVEEN K	34	U17BA020	KARMUGILAN M
10	U17BA049	VIGNESH M	35	U17BA019	ASWINI M
11	U17BA048	SRINIVASAN K	36	U17BA018	MAHENDER SURESH
12	U17BA047	KRISHNA MOHAN SINGH	37	U17BA017	BALAJI S
13	U17BA046	CHITRA ARASAN G	38	U17BA016	PRAVEEN KUMAR S
14	U17BA045	HARI PRASATH K	39	U17BA015	SURENDHAR K
15	U17BA044	ARJUN A	40	U17BA013	PRAGADEESH K
16	U17BA041	MANOJ KUMAR E	41	U17BA012	DHANUSH KUMAR K
17	U17BA040	LOKESH K	42	U17BA011	SARANYA N
18	U17BA039	JAGATH RATCHAGAN J	43	U17BA010	SANGAVI S
19	U17BA038	SANTHOSH KUMAR S	44	U17BA009	DHILIP KANNA
20	U17BA036	RUBAN BOSE R	45	U17BA007	ABHISHEK J
21	U17BA035	DEEPAK T	46	U17BA006	BASKAR V
22	U17BA034	KAMALAKANNAN T	47	U17BA005	ABIN JOSEPH
23	U17BA033	SELCIA J	48	U17BA004	KARTHICK J
24	U17BA032	BALAGURU C	49	U17BA003	PREETHI S-A-
25	U17BA030	KARTHICK V	50	U17BA002	RACHEL K



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Statement of Marks

Value Added Course : Certificate Course on Six Sigma

Reg. No.	Name	Marks	Reg. No.	Name	Marks
U17BA059	DINESH PRASAD	81	U17BA029	THIRAJ M	86
U17BA058	MELVIN AKASH S	74	U17BA027	ARUN KUMAR G	69
U17BA057	BERGILIN LEO V	69	U17BA026	VIKRAM E	84
U17BA056	SANTHOSH KUMAR P	74	U17BA025	SATHISH G	88
U17BA055	ANIL N	79	U17BA024	BASKAR M	93
U17BA054	MADHAN G	89	U17BA023	MADAN C	85
U17BA053	GOPINATH M	85	U17BA022	MONISHA S	82
U17BA052	GOKUL KRISH S	82	U17BA021	ABUTHALIB A	86
U17BA050	NAVEEN K	86	U17BA020	KARMUGILAN M	91
U17BA049	VIGNESH M	91	U17BA019	ASWINI M	69
U17BA048	SRINIVASAN K	69	U17BA018	M SURESH	81
U17BA047	KRISHNA MOHAN SINGH	76	U17BA017	BALAJI S	74
U17BA046	CHITRA ARASAN G	66	U17BA016	PRAVEEN KUMAR S	69
U17BA045	HARI PRASATH K	86	U17BA015	SURENDHAR K	74
U17BA044	ARJUN A	69	U17BA013	PRAGADEESH K	79
U17BA041	MANOJ KUMAR E	84	U17BA012	DHANUSH KUMAR	65
U17BA040	LOKESH K	88	U17BA011	SARANYA N	58
U17BA039	JAGATH RATCHAGAN J	93	U17BA010	SANGAVI S	68
U17BA038	SANTHOSH KUMAR S	90	U17BA009	DHILIP KANNA	59
U17BA036	RUBAN BOSE R	65	U17BA007	ABHISHEK J	60
U17BA035	DEEPAK T	58	U17BA006	BASKAR V	77
U17BA034	KAMALAKANNAN T	68	U17BA005	ABIN JOSEPH	93
U17BA033	SELCIA J	59	U17BA004	KARTHICK J	67
U17BA032	BALAGURU C	60	U17BA003	PREETHI S-A-	59
U17BA030	KARTHICK V	77	U17BA002	RACHEL K	79



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Certificate Course on Six Sigma

Answer all the questions

Part A ($5 \times 1 = 5$ Marks)

1 Six Sigma is a business-driven, multi-dimensional structured approach to:

Choice-1: Reducing process variability Choice-2: Increasing customer satisfaction

Choice-3: Lowering Defects Choice-4: Improving Processes

Choice-5: all of the above

2 ANALYZE phase - includes

Choice-1: Identify Vital Project X's and statistically validate them

Choice-2: Communicate & sign off to close Project

Choice-3: Generate Potential Solutions & Assess Failure Mode

Choice-4: all of the above Choice-5: none of the above

3 _____ is a document that provides a framework and objective for an improvement project.

Choice-1: Goal Statement Choice-2: Business Case

Choice-3: Problem Statement Choice-4: Project Charter

Choice-5: Project Scope

4 A sample that will lead to incorrect conclusions about the population and which will not be representative of the population is

Choice-1: Clustered Choice-2: Biased

Choice-3: Random Choice-4: Stratified random

Choice-5: None of the above

Question 5

5 If you were a Six Sigma Deployment Leader in the organization, what will you first do?

Choice-1: Develop a vision and mission for the organization and execute a Six Sigma Deployment plan in the organization

Choice-2: Perform statistical analysis in the process and identify root causes

Choice-3: Help process achieve its metrics by executing process improvement projects

Choice-4: Identify areas of best practices and guide green belts to execute them

Choice-5: Achieve goals given by the project Champion

$3 \times 5 = 15$ Marks

- 1 What is the lean six sigma green belt exam?
- 2 What is Six Sigma?
- 3 Name some of the critical principles of six sigma.

$3 \times 10 = 30$ Marks

- 1 What is the Pareto Principle?
- 2.a. While initiating a six sigma project, what approach do you follow?
- 2.b. Name some Lean Six sigma project types.
- 3 What is the difference between the Six Sigma DMAIC and DMADV methodologies?



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Course Feedback form

Value Added Course

Date: 18.10.2018

Course Title: CERTIFICATE COURSE ON
SIX SIGMA

Name : SARANYA N

Reg. No : U17BA011

Department : BBA

Sl. No	Particulars	1	2	3	4	5
(1. Very Unsatisfied 2. Unsatisfied 3. Neutral 4. Satisfied 5. Very Satisfied)						
1.	Objectives of the course clear to you					✓
2.	Course contents met with your expectations				✓	
3.	Lecture sequence was well planned				✓	
4.	Lectures were clear and easy to understand					✓
5.	Teaching aids were effective				✓	
6.	Instructors encourage interaction and were helpful					✓
7.	The level of the course					✓
(1. Very poor 2. Poor 3. Average 4. Good 5. Excellent)						
8.	Overall rating of the course:	1	2	3	✓	5

Please give Suggestion for the improvement of the course:

Visiting the organization which follows
Six Sigma rules may be part of
the syllabus

N. Saranya
Signature



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Course Feedback form

Value Added Course

Date: 18-10-18

Course Title: Certificate course on SISE Sigma

Name

Sargam S

Reg. No

V17BA010

Department

B3 Administration

Sl. No	Particulars	1	2	3	4	5
(1. Very Unsatisfied 2. Unsatisfied 3. Neutral 4. Satisfied 5. Very Satisfied)						
1.	Objectives of the course clear to you				✓	
2.	Course contents met with your expectations					✓
3.	Lecture sequence was well planned					✓
4.	Lectures were clear and easy to understand					✓
5.	Teaching aids were effective				✓	
6.	Instructors encourage interaction and were helpful					✓
7.	The level of the course					✓
(1. Very poor 2. Poor 3. Average 4. Good 5. Excellent)						
8.	Overall rating of the course	1	2	3	4	5

Please give Suggestion for the improvement of the course.

The course was interesting because it gave me idea of sigma principles and how to use them in business development.

Signature

Bharath Institute of Higher Education & Research
SCHOOL OF ARTS
Course Time Table

Certificate Course on Six Sigma

Course Duration:30 Hrs

S.No	Date	Time	Hour
1	03-09-2018	2.00-3.00p.m	1
2	05-09-2018	10.00-11.00p.m	1
3	07-09-2018	2.00-3.00p.m	1
4	11-09-2018	10.00-11.00p.m	1
5	14-09-2018	2.00-4.00p.m	2
6	17-09-2018	10.00-11.00p.m	1
7	19-09-2018	2.00-4.00p.m	2
8	22-09-2018	10.00-12.00p.m	2
9	27-09-2018	2.00-4.00p.m	1
10	01-10-2018	10.00-11.00p.m	1
11	03-10-2018	2.00-4.00p.m	2
12	05-10-2018	10.00-12.00p.m	2
13	06-10-2018	2.00-4.00p.m	2
14	08-10-2018	10.00-12.00p.m	2
15	09-10-2018	2.00-4.00p.m	2
16	11-10.2018	10.00-12.00p.m	2
17	13-10-2018	10.00-12.00p.m	2
18	14-10-2018	2.00-3.00p.m	1
19	16-10-2018	10.00-11.00p.m	1
20	18-10-2018	2.00-3.00p.m	1

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Course Lesson Plan

Certificate Course on Six Sigma

Course Duration:30 Hrs

S.No	Date	Topic	Time	Hour
1	03-09-2018	The Basics of Six Sigma - Meanings of Six Sigma	2.00-3.00p.m	1
2	05-09-2018	General History of Six Sigma & Continuous Improvement	10.00-11.00p.m	1
3	07-09-2018	Deliverables of a Lean Six Sigma Project - The Problem Solving Strategy $Y = f(x)$	2.00-3.00p.m	1
4	11-09-2018	Selecting Lean Six Sigma Projects - Tools, Characteristics	10.00-11.00p.m	1
5	14-09-2018	Define Process - Cause & Effect / Fishbone Diagrams	2.00-4.00p.m	2
6	17-09-2018	Process Mapping, SIPOC, Value Stream Map	10.00-11.00p.m	1
7	19-09-2018	Failure Modes & Effects Analysis (FMEA)	2.00-4.00p.m	2
8	22-09-2018	Sigma Statistics - X-Y Diagram - Basic Statistics	10.00-12.00p.m	2
9	27-09-2018	Patterns of Variation - Multi-Vari Analysis	2.00-4.00p.m	1
10	01-10-2018	Classes of Distributions - Inferential Statistics	10.00-11.00p.m	1
11	03-10-2018	Understanding Inference - Sampling Techniques & Uses	2.00-4.00p.m	2
12	05-10-2018	General Concepts & Goals of Hypothesis Testing	10.00-12.00p.m	2
13	06-10-2018	Simple Linear Regression – Correlation	2.00-4.00p.m	2
14	08-10-2018	Regression Equations - Residuals Analysis	10.00-12.00p.m	2
15	09-10-2018	Multiple Regression Analysis - Non- Linear Regression	2.00-4.00p.m	2
16	11-10-2018	Multiple Linear Regression - Confidence & Prediction Intervals	10.00-12.00p.m	2
17	13-10-2018	Lean Controls - Control Methods for 5S - Poka-Yoke	10.00-12.00p.m	2
18	14-10-2018	Statistical Process Control (SPC)	2.00-3.00p.m	1
19	16-10-2018	Data Collection for SPC - Six Sigma Control Plans	10.00-11.00p.m	1
20	18-10-2018	Cost Benefit Analysis	2.00-3.00p.m	1



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83/3, AGARAM MAIN ROAD, THIRUVANCHERRY, CHENNAI - 600 126, TAMIL NADU, INDIA

Certificate of Participation

This is to certify that MONISHA.S
has participated in the value added course: Certificate Course on Six Sigma, a unique and special programme
held at School of Arts, BIHER from 3rd September 2018 to 18th October 2018.

R. Ravikum
Course Co-ordinator

P. Sumathi
Dr. P.Sumathi
HOD

A. Muthukumaravel
Dr.A.Muthukumaravel
Dean



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SCHOOL OF ARTS

83/3, AGARAM MAIN ROAD, THIRUVANCHERRY, CHENNAI - 600 126, TAMIL NADU, INDIA

Certificate of Participation

This is to certify that ASWINI.M
has participated in the value added course: Certificate Course on Six Sigma, a unique and special programme
held at School of Arts, BIHER from 3rd September 2018 to 18th October 2018.

R. Ravikumar
Course Co-ordinator

P. Sumathi
Dr. P.Sumathi
HOD

A. Muthukumaravel
Dr.A.Muthukumaravel
Dean



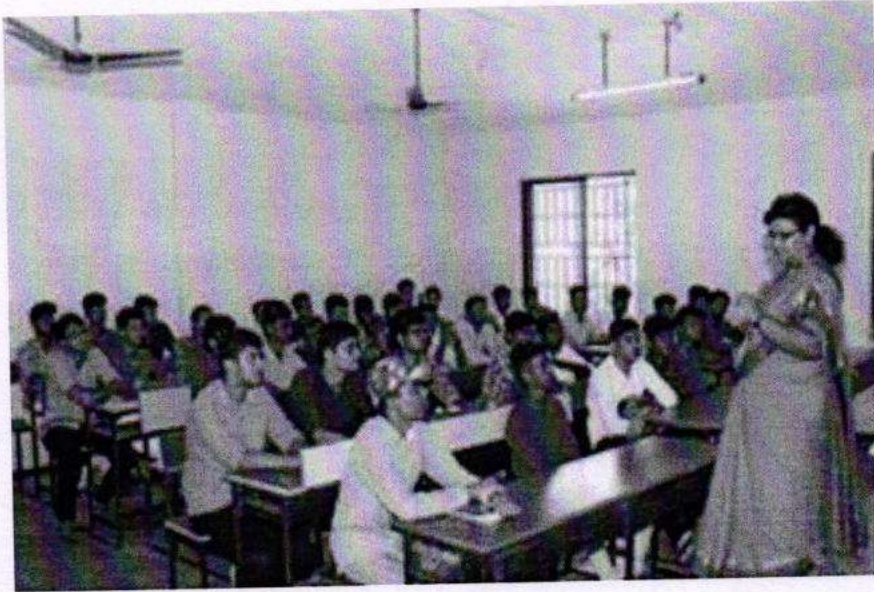
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SCHOOL OF ARTS

CERTIFICATE COURSE ON SIX SIGMA



Resource Person Details

Dr. M.Srikrishna
Asst. Professor,
Department of Mathematics,
Saveetha School of Engineering,
Chennai.