

Operational Document – Implementing Academic Feedback & Review Findings

Department of MCA



REGISTRAR

**KLE Technological University
HUBBALLI-580 031**



**Head of the Department
Department of Master of Computer Applications
KLE TECHNOLOGICAL UNIVERSITY
HUBBALLI-580 031.**

Action Plan – Academic Review of MCA Department

1. Action Taken Report Approved in Board of Studies dated 11-07-2015 and implemented with effect from Aug 2015

2015	Observations/ Recommendations based on feedback	POs impacted
Employers Feedback: 1. Introduce courses on latest technology and tools.		PO1
Teachers Feedback (Pre-BoS MoM): 1. Inclusion of experiential learning for Software development design phase.		PO2
Students Feedback: Nil		PO3
Alumni Feedback: 1. Introduce Web 2.0 application development skills. 2. Introduce courses on design and development of web-based, network-centric or enterprise applications. 3. Offer courses on open-source server-side dynamic web-application development frameworks. 4. Data Analytics of Business Information knowledge could be offered.		PO5
		PO7
Actions taken		Course Revised/ Added
1. A course to facilitate students to acquire Web 2.0 technologies and tools is introduced. 2. A practical course on implementation of the design phase of software development to illustrate the transformation of the customer requirements as described in the SRS documents into a form implementable using a programming language is offered. 3. Course is introduced on advanced web-based, network-centric (enterprise) application development involving concepts like Servlet, JSP, JDBC, RMI, Socket programming, etc.		Courses Added: 1. 15ECAP706 Rich Internet Application Lab. 2. Software Design Lab 3. Advanced Java Programming 4. ASP.Net Lab 5. Cloud Computing
		BoS approved Date
		11-07-2015

4. A course offered on open-source, server-side web-application framework to cover design & development of dynamic web sites, applications and services. 5. Elective course offered for each of the following: <ul style="list-style-type: none"> i. To offer courses on latest technology and tools for on-demand availability of computer system resources – data storage and computing power. ii. To offer course on Internet of Things. iii. To offer Business Intelligence course to cover the strategies and technologies used by enterprises for the data analysis of business information. 	6. Internet of Things 7. Business Intelligence Courses Revised:	
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------	--

2. Action Taken Report Approved in Board of Studies dated 26-03-2016 and implemented with effect from Aug 2016

2016	Observations/ Recommendations based on feedback	POs impacted
Employers Feedback: <ul style="list-style-type: none"> 1. Programming Fundamentals should be strengthened. 2. Introduce courses on latest application development technology and tools. Teachers Feedback (Pre-BoS MoM): <ul style="list-style-type: none"> 1. Database connections should be included in practices. 2. Introduce Wireless Mobile Computing Course. 3. Software Engineering skills should be experiential learning. Students Feedback:Nil Alumni Feedback: <ul style="list-style-type: none"> 1. Data Analytics with big data to make data-driven decisions that improve business-related outcomes should be offered. 2. Introduce course on server-side programming for development of dynamic web applications. 		PO1 PO2 PO3 PO5 PO8
Actions taken		Course Revised/ Added
		BoS approved Date

1. Data Connections with Applications using MS SQL Server Connection included in the Programming C#.Net course.
2. To introduce a practical course on implementation of stored procedures from high-level programs.
3. Elective Course introduced on Data Analytics skills to handle Big Data.
4. To offer a course on Wireless Computing and Mobile Programming.
5. Software Engineering course is revised to include Google's Software Development Process and Spotify Engineering Process to offer experiential learning.
6. Course on C programming introduced to strengthen programming fundamentals.
7. PHP Programming course introduced to offer server-side programming for dynamic web application development.
8. Software Engineering course to include practice-based assignments.
9. Elective courses involving latest technological trends in Data Analytics, IT Infrastructure & Management, Mobile application Development are introduced.
10. Information Security course and Service Oriented Architecture course are revised to include practice-based pedagogy.
11. Python Programming course offered.

Courses Added:

1. Problem Solving Using C 15ECAC708
2. PHP Programming 15ECAC711
3. Web Services Lab 15ECAP708
4. Python Programming 16ECAC803
5. Mini Project-1 16ECAP803
6. Mini Project-2 16ECAP806
7. Cyber Security and Forensics 16ECAE806
8. IT Infrastructure & Management 16ECAE807
9. NoSQL 16ECAE802
10. Database Administration 16ECAE803
11. Mobile Application Development 16ECAC903
12. Cloud Computing 16ECAE808
13. Machine Learning 16ECAE906

26-03-2016

4 | Page

REGISTRAR
KLE Technological University
HUBBALLI-580 031

Head of the Department
Department of Master of Computer Applications
KLE TECHNOLOGICAL UNIVERSITY
HUBBALLI-580 031.

		Courses Revised: <ol style="list-style-type: none"> 1. Programming C# with .Net 16ECAC806 2. Software Engineering 15ECAC706 3. PL/SQL Lab 16ECAP805 4. Information Security 16ECAE903 5. Service Oriented Architecture 16ECAE904 	
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Action Plan – Academic Review of MCA Department

3. Action Taken Report Approved in Board of Studies dated 23-03-2017 and implemented with effect from Aug 2017

2017	Observations/ Recommendations based on feedback	POs impacted
Employers Feedback: 1. Fundamentals/basics should be improved. 2. Students should not forget topics studied in earlier semesters.		PO1 PO2 PO3 PO7
Teachers Feedback (Pre-BoS MoM): 1. Application Version Management, Deployment-Integration-Testing of Applications should be offered. 2. Software development and operations approach for faster development of new products and easy maintenance. 3. Exclude content on EJB & Java Beans from Java Programming related courses as they are obsolete. 4. Data Analytics with big data should be mandatorily offered.		

10. Object Oriented Analysis and Design Lab to be introduced.	1. User Interface Design 18ECAE802 2. Data Mining 17ECAC805 3. UNIX Lab 17ECAP703 4. Mini Project -1 17ECAP706	
---------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------	--

Action Plan – Academic Review of MCA Department

4. Action Taken Report Approved in Board of Studies dated 13-04-2018 and implemented with effect from Aug 2018


2018	Observations/ Recommendations based on feedback	POs impacted
Employers Feedback: <ol style="list-style-type: none"> 1. Practical Applications of concepts / more hands-on required. 2. Students lack in programming fundamentals. 3. Awareness of latest technological trends. Teachers Feedback (Pre-BoS MoM): <ol style="list-style-type: none"> 1. Introduce Machine learning with Python Course. 2. IoT prerequisites hardware knowledge on microprocessors, microcontrollers and their architectures in FCO course. 3. Rename Problem Solving using C course as Problem Solving Techniques. 4. Introduce practice-based assignments for Software Engineering Course. 5. Web 2.0 technologies and tools are used in the industry for better design and efficient production. 6. Experiential learning for basic networking and understanding the working principle of various communication protocols is to be considered. 7. Implementation of Networking commands through network administration. 		PO1, PO2, PO3, PO4, PO5, PO7, PO10, PO13

8. Web application development with Geo-Spatial information is gaining popularity.
9. Experiential learning with Cloud-based technology and tools.

Students Feedback:

Alumni Feedback:

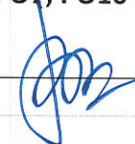
1. Hands-on with Big Data Analytics tools should be considered.
2. Cyber Security is increasingly gaining popularity in today's IT world. Students should be sensitized with the knowledge of Cyber Security applications development and maintenance.
3. Open-Source OS Administration involving configuration, maintenance, resolving problems associated with servers, applications and software should be offered.

Actions taken	Course Revised/ Added	BoS approved Date
<ol style="list-style-type: none"> 1. Course introduced to cover prerequisites for Block-Chain technology. 2. Course offered on development of Web applications to deal with GIS data and to provide consolidation of information within Spatial and temporal context. 3. Cloud technology tools like AWS, MS Azure, Google Cloud Platform introduced under Cloud Computing. 4. Practice based assignments included on Hadoop, MapReduce, MongoDB, Pig, Hive tools of Big Data Analytics. 5. Pedagogy of Machine Learning revised according to the Coursera Andrew NG MOOC. 6. Skills on Configuration, maintenance of open-source OS applications, resolving problems associated with servers offered through LINUX Administration. 7. Introduced Cyber Security & Forensics course involving Cyber Security application development & maintenance. 8. To offer course to cover prerequisites for development of GIS based web applications. 9. Framework & tools-based Software development and operations approach for faster & easier development, deployment and maintenance of software applications is offered through DevOps course. 	<p>Courses Added:</p> <ol style="list-style-type: none"> 1. ASP .Net Lab 17ECAP901 2. 18ECAE807 3. RESTful Web Services 4. 17ECAE903 Full Stack Development – MEAN 5. Block Chain Technologies 18ECAE905 6. 17ECAP904 Robotic Process Automation (Certification Course) 7. GIS Data Management 	<p>13-04-2018</p> 

Alumni Feedback: 1. Rich Internet Applications lab should be revised to include more practical exercises.		
Actions taken	Course Revised/ Added	BoS approved Date
1. To strengthen programming fundamentals Data Structures using C programming course is revised. 2. Computer Networks lab introduced to offer hands-on in the area of networking for understanding the working principle of various protocols. 3. GIS Data Management course revised to include practice-based assignments.	Courses Added: 1. Computer Networks Lab 19ECAP706 Courses Revised: 1. Data Structures using C 19ECAC701 2. Rich Internet Application Lab 19ECAP702 3. GIS Data Management 19ECAE803	13-04-2019

Action Plan – Academic Review of MCA Department

6. Action Taken Report Approved in Board of Studies dated 18-06-2020 and implemented with effect from Aug 2020

2020	Observations/ Recommendations based on feedback	POs impacted
Employers Feedback: 1. Fundamentals/Basics must be improved. 2. Practical Applications of concepts / more hands-on required. 3. Awareness of latest technological trends.		PO1, PO2, PO3, PO5, PO7, PO10 

Teachers Feedback (Pre-BoS MoM): <ol style="list-style-type: none"> 1. To enhance learning by integrating theory & practice. 2. Design & Analysis of Algorithms should be offered as a core subject. 3. Machine Learning as a prerequisite for Deep Learning. Students Feedback:Nil Alumni Feedback:Nil		
Actions taken <ol style="list-style-type: none"> 1. Data Structures Using C 19ECAC701 – Basic concepts of C Programming Language to be added in introduction section. 2. All fundamental courses revised to integrate theory and practices for the changed MCA Programme scheme from 3 years to 3 years. 	Course Revised/ Added <ol style="list-style-type: none"> 1. 20ECAC701 Data Structures using C 2. 20ECAC702 Data Base Management System 3. 20ECAC703 Computer Networks 4. 20ECAC705 Web Technology 5. 20ECAP701 Python Programming Lab. 6. 20ECAC706 OOPS using Java 7. 20ECAC707 Data Mining 8. 20ECAC709 Cloud Computing 9. 20ECAC711 Design & Analysis of Algorithms 	BoS approved Date 18-06-2020