

KONGU ENGINEERING COLLEGE, PERUNDURAI

Department of Computer Technology – UG

One Credit Courses Odd Semester 2021-2022

CIRCULAR

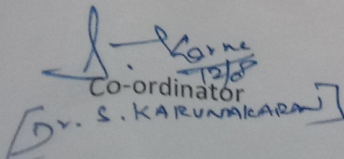
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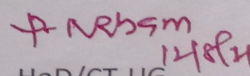
The following One Credit Courses are proposed for the benefit of third and fifth Semester Students for the academic year 2020-2021. Interested students are requested to enroll their name to the respective course co-ordinator before 15.08.2021.

S.no	Course Name	Number of Credits	Eligible Semester	Co-ordinator	Contact Details
1.	Aws_Cloud Fundamentals	One	Fifth	Dr.S.Kalaiselvi Ms.D.Hemalatha	9865046699 6383521415
2.	Natural Language Processing with Python	One	Fifth	Dr.K.Saraswathi Ms.S.Nandhinidevi	9865304338 9865571747
3.	Version Control with GIT and GITHUB	One	Fifth	Dr.C.N.Vanitha Ms.K.Sathya	9003962637 8695284858
4.	Data Analytics using 'R'	One	Fifth	Ms.S.Poorani Ms.P.Gokila Brindha	9095337052 9865805218
5.	Introduction to MATLAB Programming	One	Third	Ms.M.Santhiya Ms.N.Kanimozhi	9688583963 6380888478
6.	Programming with GOLANG	One	Third	Ms.M.N.Kavitha Ms.S.S.Saranya	9843594196 8056478174
7.	Introduction to Augmented Reality Using Unity Game Engine	One	Third	Dr.S.Parvathavarthini Dr.S.KavithaBharathi	9789221179 9965540601

General Guidelines:

- Students can earn a maximum of one credit through any one value added course during each semester.
- Students can earn a maximum of three credits through value added courses during the entire duration of the programme.


Co-ordinator
Dr. S. KARUNAKARAN


HoD/CT-UG



KONGU ENGINEERING COLLEGE, PERUNDURAI, ERODE - 638 060

CDC-04A, Rev.0, 01.04.2021

(AUTONOMOUS)

BOARD OF B.Sc CT-UG

Approval for Value Added Course (One / Two Credits) - (Consolidated)



Date: 01.09.2021

List of Value Added Course (One / Two credit) in the academic Year 2021-2022 Odd/Even Semester

Sl. No	Regulations	Course Name	Course code (for Repeated Course) / New Course	Name of the Co-ordinators (Max:2)	Experts details from Industry (if any)	Whether Expert(s) is/are Alumni/ Alumnae (yes/no)	Lecture Hours	Practical Hours	Total Hours	Specify Fee/Per Batch / Fee/ Per Student	Fee Amount (Fee/Batch or Fee/Student)	Course Duration		Offered to (Year/Sem/ Branch of the student)
												From	To	
1	2018	Natural Language Processing with Python	New Course	Dr.K.Saraswathi Ms.S.Nandhinidevi ✓	NIL	NIL	15	15	30	NIL	NIL	30.8.21	30.9.21	III/V/IS,SS
2	2018	Introduction to GitHub	18VAC62	Dr.C.N.Vanitha Ms.K.Sathya ✓	NIL	NIL	10	20	30	NIL	NIL	25.8.21	30.9.21	III/V/CSD,IS,SS
3	2020	Introduction to MATLAB Programming	New Course	Ms.M.Santhiya V.Vishnupriya ✓	NIL	NIL	15	15	30	NIL	NIL	31.8.21	30.10.21	II/III/CSD,IS,SS
4	2020	Programming with Golang	New Course	Ms.M.N.Kavitha Ms.S.S.Saranya ✓	NIL	NIL	15	15	30	NIL	NIL	31.8.21	30.10.21	II/III/CSD,IS,SS
5	2020	Introduction to Augmented Reality Using Unity Game Engine	New Course	Dr.S.Parvathavarthini Dr.S.KavithaBharathi	NIL	NIL	12	18	30	Per Student 1500/- 1000/- 1000/-	1000/- 1000/- 1000/-	03.09.21	12.10.21	II/III/CSD,IS,SS

These courses shall be approved/ratified in the BOS meeting.

Faculty in-charge

KARUNAKARAN

HOD

CCO/Academic

Principal

End:

- Minutes of Internal BOS for approval of the above courses
- Details of each course mentioned above as per the given format.
- Copy of the Syllabus of the courses



KONGU ENGINEERING COLLEGE
(Autonomous)
PERUNDURAI - 638060
INTERNAL QUALITY ASSURANCE CELL

CDC-04B, Rev.0, 01.04.2021



CERT No. 99-100-20788
ISO 9001 : 2015

Approval for Value Added Course (One / Two Credits)

Academic Year: 2021-2022 EVEN Semester

DEPARTMENT OF CT-UG

Date: 19.8.2021

1.	Academic Year	:	2021-2022	Semester : ODD / <u>EVEN</u>		
2.	Course Title	:	Programming with Golang	Credit(s): One / Two		
3.	Type of Course	:	Already Offered Course / Updated Course / New Course			
	• If "Already offered course",	:	Course Code: -	Version:-		
4.	Course Coordinator(s)	:	1. M.N.Kavitha 2. S.S.Saranya			
5.	Course offered by	:	Internal faculty / External experts			
6.	Name and designation of external resource persons	:				
7.	Details about external organization	:	• If it is external experts, Please mention the name of the organization and experts details • Submit the details for choosing the external organization for offering the course • Submit the financial proposal from the external organization • No remuneration in any form to internal faculty			
8.	Course fee for external experts		Max. number of students/Batch	Course fee / student		
	NA		30	NIL		
9.	No. of days	Period	No. of hours			Venue/ Meet ID https://meet.google.com/lookup/gbl5f-ofspb
		From To	Lecture	Practical	Total	
	25 days	31.08.2021 30.10.2021	15	15	30	
10.	Pre-requisites for offering the	:	Python Programming			

	Course offered to	Programme		Branch	Year/Semester		
		BSc		1. Computer Systems and Design 2. Information Systems 3. Software Systems	II Year / III Sem		
12.	Course Main Contents	:	Day 1	Overview of Golang – Environment Setup			
			Day 2	Variables, Constants & Data Types			
			Day 3	Operators			
			Day 4	Decision Making			
			Day 5	Loops			
			Day 6	Arrays			
			Day 7	Slices			
			Day 8	Sorting			
			Day 9	Functions			
			Day 10	Recursion			
			Day 11	Strings			
			Day 12	Structures			
			Day 13	Pointers			
			Day 14	Rune			
			Day 15	Reflect			
			Day 16	Maps			
			Day 17	Interfaces			
			Day 18	Packages			
			Day 19	Go Time			
			Day 20	Go Error			
			Day 21	Go defer, panic and recover			
			Day 22	Concurrency			
			Day 23	Go routines			
			Day 24	Go Race			
			Day 25	Go Mutex			
				Assignment : Programming Assignment			
		13.	Course Outcomes	:	After completing the course the student will be able to:		
	✓ demonstrate datatypes, control structures, arrays and functions with simple application ✓ implement basic applications using strings, structures, packages and interfaces ✓ apply Reflect, Rune, Map and Concurrency for a real world application.						

Course Assessment (Min. 2)	S. No.	Type	Max. Marks
	2	Practical	50
	3	Assignment	20
Total			100 Marks

15. Verified that the content of this course is not offered to students partially/fully in regular curriculum of respective programme of the student.
Certify that the course content, credits and grade are approved in the BOS meeting or approved by internal BOS members and will be ratified in the next BOS meeting

(Signature of the HoD after verification)

16. Any other details

The above proposal may kindly be approved.

1. *[Signature]* 24/8/21 [S.S. Srinivas]
2. *[Signature]* 24/8/21 [Ch. N. Srinivas]
Course co-ordinator(s)

[Signature] 24/8/21
HOD

[Signature] 24/9/2021
Chief Coordinator/Academic

Encl:

- Copy of the syllabus of the course
- Financial proposal from the external organization (if any)

PROGRAMMING WITH GOLANG

L	T	P	Credit
2	0	2	1

Preamble	This course provides an introduction to Go language basic data types, functions, arrays, pointers, maps, strings and implements concurrency model to demonstrate parallel execution.	8
Unit - I	Fundamentals of Golang: Overview of Golang - Environment Setup- Variables- Constants - Data Types - Operators - Decision Making - Loops - Arrays - Slices - Sorting - Functions - Recursion	7
Unit - II	Strings and Packages: Strings - Structures - Pointers- Go Rune - Go Reflect - Maps - Interfaces - Packages - Go Time - Go Error - Go defer, panic and recover - Concurrency - Go routines, Go Race, Go Mutex	

List of Exercises / Experiments:

1. Create a Hello World application using Go Programming.
2. Write a Go program to check whether the given number is odd or even.
3. Create a simple calculator application using operators.
4. Write a program to check whether a given number is palindrome or not in Golang.
5. Write a program to check whether a given number is Armstrong number or not in Golang.
6. Create a simple application to find the factorial of a given number.
7. Write a program to shift all zeros to the end of array in Golang.
8. Write a program to perform swapping of two numbers using call by reference.
9. Write a program to generate Fibonacci series in go using recursive function.
10. Write a program to sort the given numbers in ascending order using slices in Golang.
11. Write a Go program to demonstrate various string methods.
12. Write a Go program to demonstrate the map functions.
13. Create area calculation of different shapes application using Interfaces.
14. Write a Go program to demonstrate the built-in functions in Time package.
15. Illustration of the Dining Philosophers problem in Golang.

Lecture:15, Practical:15, Total: 30

REFERENCES:

1. Caleb Doherty, "Introducing Go", 1st Edition, O'Reilly Publication, New York, 2016.
2. Alan A. Donovan, Brian W. Kemighan, "The Go Programming Language", 1st Edition, Pearson Education, Indiana, 2015.
3. William Kennedy, Brian Ketelsen, Erik Saint Martin, "Go in Action", 1st Edition, Manning Publications, USA, 2015.

COURSE OUTCOMES:
On completion of the course, the students will be able to

CO1	demonstrate data handling
CO2	interpret data

CO1	demonstrate data types, control structures, arrays and functions with simple application	BT Mapped (Highest Level)
CO2	implement basic applications using strings, structures, packages and interfaces	Applying (K3)
CO3	apply Reflect, Rune, Map and Concurrency for a real world application	Applying (K3), Manipulation (S2)

Mapping of COs with POs and PSOs

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	1	1					2	3	3	2	1	1
CO2	3	2	1	1					2	3	3	2	1	1
CO3	3	2	1	1					2	3	3	2	1	1

1 - Slight, 2 - Moderate, 3 - Substantial, BT- Bloom's Taxonomy

ASSESSMENT PATTERN

ASSESSMENT PATTERN							
Test / Bloom's Category*	Remembering (K1) %	Understanding (K2) %	Applying (K3) %	Analyzing (K4) %	Evaluating (K5) %	Creating (K6) %	Total %
MCQ – 30 marks	20	30	50				100
Programming Test - 50 marks	20	30	50				100
Assignment – 20 marks	20	30	50				100

* As per the approval

1-2-8-8  [S.S. SARANYA]
24/8/21

2. D.H.M.N [M.N. KANTHA]
24/8/21

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KONGU ENGINEERING COLLEGE,
PERUNDURAI-638052

Department of Computer Technology – UG

One Credit Course - Attendance List

Academic Year : 2021-2022
Semester : Odd Semester
Course Code : 20VC017
Course Name : Programming with Golang
Co-ordinators : M.N.Kavitha & S.S.Saranya
Date of Examination : 03.11.2021

Programme: B.Sc - CSD

S.no	Roll Number	Name	Conducted Hours	Attended Hours	Attendance Percentage
1.	20BCR005	DEEPADHARSHINI. G	36	32	88
2.	20BCR006	DHAARANI S	36	36	100
3.	20BCR012	ELSIA.M	36	30	83
4.	20BCR020	KALISWARY K	36	35	96
5.	20BCR029	NITHI SHREE.P	36	36	100
6.	20BCR033	RANITHA.S	36	30	83
7.	20BCR041	SELVA DHARSHINI. M	36	35	96
8.	20BCR048	SOUNDARYA. G	36	32	88

Programme: B.Sc -SS

S.no	Roll Number	Name	Conducted Hours	Attended Hours	Attendance Percentage
1.	20BIR003	AGALYA S	36	33	92
2.	20BIR005	ARVIND P	36	30	83
3.	20BIR015	DIVYA DHARSHINI.S	36	36	100
4.	20BIR016	GAUTAMBAALESH.K	36	30	83

5.	20BIR025	KATHIRVEL P	36	26	72
6.	20BIR031	M.MURUGANANTH	36	30	83
7.	20BIR032	NANDINI R S	36	30	83
8.	20BIR034	NAVANEETA M	36	36	100
9.	20BIR039	RAHUL R	36	35	96
10.	20BIR040	RANJITH P	36	35	96
11.	20BIR045	SANJITH P	36	32	88
12.	20BIR049	SIVASENTHIL M	36	35	96
13.	20BIR050	SOWNDHRA PRASANTH.D	36	32	88
14.	20BIR051	SREE HARI-S	36	35	96
15.	20BIR056	THARSHINI C	36	33	92
16.	20BIR057	THARUN S.C.	36	30	83

Programme: B.Sc - SS

S.no	Roll Number	Name	Conducted Hours	Attended Hours	Attendance Percentage
1.	20BSR018	GOWRI MANIKANDAN M	36	35	96
2.	20BSR023	HARISANKAR M	36	36	100
3.	20BSR027	KAVIVARSHNI M	36	36	100
4.	20BSR028	KAVIYA K	36	36	100
5.	20BSR041	RANJITH R R	36	35	96
6.	20BSR048	SATHYA SRI.G	36	35	96

All n.w
2/12/2021
S.S. Saranya
6/12/21
Coordinators

Y. N. S. S. M
2/12/21
HoD

M.N.Kavitha

S.S.Saranya

KONGU ENGINEERING COLLEGE,
PERUNDURAI-638052

Department of Computer Technology – UG

One Credit Course Mark List

Academic Year : 2021-2022
Semester : Odd Semester
Course Code : 20VC017
Course Name : Programming with Golang
Co-ordinators : M.N.Kavitha & S.S.Saranya
Date of Examination : 03.11.2021

Programme: B.Sc - CSD

S.no	Roll Number	Name	Marks for 100
1.	20BCR005	DEEPADHARSHINI. G	86
2.	20BCR006	DHAARANI S	88
3.	20BCR012	ELSIA.M	83
4.	20BCR020	KALISWARY K	82
5.	20BCR029	NITHI SHREE.P	92
6.	20BCR033	RANITHA.S	86
7.	20BCR041	SELVA DHARSHINI. M	82
8.	20BCR048	SOUNDARYA. G	87

Programme: B.Sc -IS

S.no	Roll Number	Name	Marks for 100
1.	20BIR003	AGALYA S	90
2.	20BIR005	ARVIND P	82
3.	20BIR015	DIVYA DHARSHINI.S	86
4.	20BIR016	GAUTAMBAALESH.K	84
5.	20BIR025	KATHIRVEL.P	77

6.	20BIR031	M.MURUGANANTH	82
7.	20BIR032	NANDINI R S	90
8.	20BIR034	NAVANEETA M	85
9.	20BIR039	RAHUL R	82
10.	20BIR040	RANJITH P	84
11.	20BIR045	SANJITH P	81
12.	20BIR049	SIVASENTHIL. M	82
13.	20BIR050	SOWNDHRA PRASANTH.D	83
14.	20BIR051	SREE HARI-S	88
15.	20BIR056	THARSHINI C	90
16.	20BIR057	THARUN.S.C.	85

Programme: B.Sc -SS

S.no	Roll Number	Name	Marks for 100
1.	20BSR018	GOWRI MANIKANDAN M	87
2.	20BSR023	HARISANKAR M	81
3.	20BSR027	KAVIVARSHNI M	87
4.	20BSR028	KAVIYA K	90
5.	20BSR041	RANJITH R R	96
6.	20BSR048	SATHYA SRI.G	89

M.N. Kavitha
2/12/2021
S.S. Saranya
6/12/21
Coordinators

M.N.Kavitha

S.S.Saranya

P. N. S. M.
2/12/21
HoD