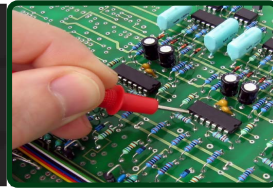


SANGAI INTERNATIONAL UNIVERSITY



Syllabus B.A. with Mathematics

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Proposed Syllabus and Scheme of Examination

for

B.A. with Mathematics

submitted to

*University Grants Commission
New Delhi*

under the

Choice Based Credit System

May 2015

**Proposed Scheme for Choice Based Credit System in
B.A. with Mathematics**

Semester	Core Course (12)	Ability Enhancement Compulsory Course (AECC) (2)	Skill Enhancement Course (SEC) (2)	Discipline Specific Elective (DSE) (4)	Generic Elective (GE) (2)
1	Differential Calculus	(English /MIL Communication) / Environmental Science			
	C2A				
	English/MIL - 1				
2	Differential Equations	Environmental Science / (English /MIL Communication)			
	C2B				
	MIL/English - 1				
3	Real Analysis		SEC1		
	C2C				
	English/MIL - 2				
4	Algebra		SEC2		
	C3D				
	MIL/English - 2				
5			SEC3	DSE1A	GE 1
				DSE2A	
6			SEC4	DSE1B	GE 2
				DSE2B	

Discipline Specific Electives (DSE)

DSE 1A (choose one)

1. Matrices
2. Mechanics
3. Linear Algebra

DSE 1B (choose one)

1. Numerical Methods
2. Complex Analysis
3. Linear Programming

Skill Enhancement Course (SEC)

SEC 1 (choose one)

1. Logic and Sets
2. Analytical Geometry
3. Integral Calculus

SEC 2 (choose one)

1. Vector Calculus
2. Theory of Equations
3. Number Theory

SEC 3 (choose one)

1. Probability and Statistics
2. Portfolio Optimization
3. Mathematical Modeling

SEC 4 (choose one)

1. Boolean Algebra
2. Transportation and Game Theory
3. Graph Theory

Generic Elective (GE)

GE 1 (choose one)

1. Mathematical Finance
2. Queuing and Reliability Theory

GE 2(choose one)

1. Descriptive Statistics and Probability Theory
2. Sample Surveys and Design of Experiments

Details of Courses under B.A. with Mathematics

Course		*Credits
	Theory + Practical	Theory + Tutorials
I. Core Course (12 Papers) Two papers – English Two papers – MIL Four papers – Discipline 1 Four papers – Discipline 2	$12 \times 4 = 48$	$12 \times 5 = 60$
Core Course Practical / Tutorial* (12 Practical/ Tutorials*)	$12 \times 2 = 24$	$12 \times 1 = 12$
II. Elective Course (6 Papers) Two papers – Discipline 1 specific Two papers – Discipline 2 specific Two papers – Generic (Interdisciplinary) Two papers from each discipline of choice and two papers of interdisciplinary nature.	$6 \times 4 = 24$	$6 \times 5 = 30$
Elective Course Practical / Tutorials* (6 Practical / Tutorials*) Two papers – Discipline 1 specific Two papers – Discipline 2 specific Two papers – Generic (Interdisciplinary) Two Papers from each discipline of choice including paper of interdisciplinary nature	$6 \times 2 = 12$	$6 \times 1 = 6$
• Optional Dissertation or project work in place of one elective paper (6 credits) in 6th Semester		

III. Ability Enhancement Courses

1. Ability Enhancement Compulsory Courses (AECC) $2 \times 2 = 4$ $2 \times 2 = 4$

(2 Papers of 2 credits each)

Environmental Science

English /MIL Communication

2. Skill Enhancement Course (SEC) $4 \times 2 = 8$ $4 \times 2 = 8$

(4 Papers of 2 credits each)

Total credit = 120

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Institute should evolve a system/ policy about ECA/ General Interest/ Hobby/ Sports/ NCC/ NSS/ related courses on its own.

***wherever there is practical there will be no tutorials and vice -versa**