

Sem	Part	Course	Course Title	Credits	Marks			Hrs/week	Exam Duration
					CAM	TEE	Total		
V	III	Core	Exploring Planetary Science and Computing	4	25	75	100	4	3hrs
	III	Core	Web Design and Markup Language	4	25	75	100	5	
	III	Core	Software Engineering	4	25	75	100	5	
	III	Core	.NET Programming	5	25	75	100	5	
	III	Core	.NET Programming and Web Design Lab	2	40	60	100	4	
	III	Elective	Elective - I	5	25	75	100	4	
	IV	Skilled Based Subject	Aptitude*	2	25	75	100	3	
VI	III	Core	Cyber Security	4	25	75	100	4	
	III	Core	Mobile Application Development	5	25	75	100	4	
	III	Core	Mobile Application Development Lab	2	40	60	100	4	
	III	Elective	Elective - II	5	25	75	100	4	
	III	Core	Project and Viva Voce	7	25	75	100	12	
	IV	Skilled Based Subject	Soft Skills *	2	25	75	100	2	
<b>Total</b>				<b>51</b>	<b>1120</b>	<b>2880</b>	<b>4000</b>	<b>60</b>	

\* Both CAM and TEE marks will be evaluated internally.

Basic Tamil/Advanced Tamil - 100 Marks CA only.

### Elective List

#### **Elective I**

- 1 Information Security
- 2 Data Mining
- 3 Artificial Intelligence and Expert Systems
- 4 Integrating SOA and Web Services
- 5 Cloud Computing
- 6 Event Management

#### **Elective II**

- 1 Mobile Communications
- 2 Network Security
- 3 Introduction to Internet of Things
- 4 Enterprise Resource Planning
- 5 Air and Sea Navigation

Project & Viva Voce Split up	
<b>CA</b>	
Review I	10
Review II	15
<b>TEE</b>	
Viva	50
Documentation	25

B11-02  
2019-20

**Dr G R DAMODARAN COLLEGE OF SCIENCE (Autonomous), COIMBATORE - 14**  
**BCA**  
**Effective from the academic year: 2019-2020**  
**FIFTH SEMESTER**

**CORE: EXPLORING PLANETARY SCIENCE AND COMPUTING**

**Objective of the Subject:** This course is designed to introduce the terms and technologies used in Planetary Science, Space Technology and Applications. Fundamentals, Key terms, Instruments and Research Agencies used for Space and Planetary Sciences are addressed.

**UNIT I: Overview of Planets**

**(Teaching Hours: 11)**

Exploration of Planet Earth – Principles of Rocketry and Space Navigation - Planets of the Solar System – The Sun and the Planets of Solar System – The Life and death of the stars – Big bang theory - Origin of the Solar system – The Solar Nebula  
Earth: Model of Planetary Evolution – Atmosphere – Interior of the Earth – Asteroids – Comets.

**UNIT II: Fundamentals of Planetary Science**

**(Teaching Hours: 9)**

Astronomy – Astrophysics – Asteroids – Artificial Gravity – Global Positioning System – Electromagnetic Propulsion – Skylab – Size and Shape of the Earth from Satellites – Space Radiation - Astronauts

**UNIT III: Space Technology**

**(Teaching Hours: 10)**

Space Technology – Outer Space/Exo Space - Space Shuttle Program – Space Traffic – International Space Station – Satellite Activities in other countries Satellites – Application Satellites – Scientific Satellites – Communication Satellites – ISRO – NASA – CNSA.

**UNIT IV: Computing and Communication**

**(Teaching Hours: 12)**

Information and Communication Technology and Space - Types of Telescopes - Observing – Data Processing – Photometry  
Integrating AI and Machine Learning for Planetary Science – Data Processing – Planetary Remote Sensing - Geo-Spatial Image Processing – A Data handling Activity to the students.

**UNIT V: Applications of Planet Science**

**(Teaching Hours:8)**

Military Applications – Weather and Climate Applications – Navigation, Maps and Surveying – Education – Agriculture – Environmental Monitoring and Resource Management.

**Text Books:**

1. Gunter Faure and Teresa M. Mensing, Introduction to Planetary Science, Springer Publications, 2007, First Edition (Unit I, II)
2. Mohammad Razani, Information, Communication and Space Technology, CRC Press, Taylor and Francis Series, 2012, First Edition (Unit III, IV)
3. Richard D. Barney et al, Instruments, Observatories and Sensor Systems Roadmap, National Aeronautics and Space Administration, NASA, 2010 First Edition (Unit III, V)
4. Joern Helbert et al, Machine Learning for Planetary Science, Elsevier Publications, 2021, I Edition
5. Web References

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**BCA**

**Effective from the academic year: 2019-2020**

**FIFTH SEMESTER**

**ELECTIVE I: EVENT MANAGEMENT**

**Objective of the Subject:** To understand the process of planning, organizing and conducting variety of events successfully.

**UNIT I: EVENT CONTEXT**

**(10Hrs)**

History and evolution, events industry, impact analysis, participants and spectators, balancing impacts, Handling Unethical Behavior.

**UNIT II: EVENT MARKETING**

**(10 Hrs)**

Event planning , pricing and promotion; volunteer team building; sourcing and managing staff Special events-types , traditional, cultural, Riviera, galas, mega-events, trade shows, exhibitions, conferences and conventions, end-to-end tours, excursions, out-door events, social events, seasonal events, environmental impacts, marketing plan; lead-generation, management and follow up, Case Study on Event Marketing.

**UNIT III: EVENT PLANNING AND ADMINISTRATION**

**(10 Hrs)**

Sponsorships, screening, budget and controls, fund-raising, negotiation and contracts; role of Government, Negotiation and contracts; Promotional Items, give - aways, Event planning, space management, use of web technology , Develop In-Office and On-Site Ethics and Business Etiquette Policies.

**UNIT IV: EVENT LOGISTICS**

**(10 Hrs)**

Transportation; booth/space design, internal communications, public relations, networking, media handling, checklists, safety and precautions, Other considerations-entertainment, photo/video coverage, prizes and gifts, risk assessment, safety and security arrangements, Venue and supplier checklist, Case Study on Event Logistics.

**UNIT V: LOCATION AND EVENT DESIGN**

**(10 Hrs)**

Venue Essentials, Creative events concepts, tabletops , other décor props, understanding clients, fundraising galas, Conferences and Conventions, Incentives and Other Special Events, Event Planning Ethics and Etiquette, Protocol, Site selection, requirements and constraints, new venues, ancillaries and amenities, final touches.

**TEXT BOOKS:**

1. Lynn, Brenda R. Carlos , Event Management, Pearson, 2004.
2. Judy, Event Planning Ethics and Etiquette: A Principled Approach to the Business of Special Event Management, 2009.
3. Johnny Allen, William O'Toole , Robert Harris , Ian McDonnell, Festival and Special Event Management, 2010.

**REFERENCES BOOKS:**

1. Joe Success, Judy, Special Events: A New Generation and the Next Frontier, 6<sup>th</sup> edition, 2010.
2. Julia Rutherford Silvers, Professional Event Coordination, The Wiley Event Management Series, 2012.
3. Allison Saget, The Event Marketing Handbook: Beyond Logistics & Planning, Kaplan Publishing, 2012.