

Paper Code	SDSS-211	Cr. Hrs	02
Paper Title	Cyber Warfare & International Security		
Domain	Social Sciences		

Course Introduction		
<p>Cyber space is considered as the fourth war front after land, air and sea. It is predicted that next major war is not likely to be fought on the battle ground but in cyber space. Era of cyber warfare has already begun. This course will keep the students informed about the cyber technology in these changing times. Therefore the need for recognizing the importance of cyber warfare cannot be ignored in modern warfare.</p>		
Learning Outcomes		
<p>On the completion of the course, the students will:</p> <ol style="list-style-type: none"> 1. Know the conceptual aspects related to cyber space 2. Explore the evolution of the cyber space & cyber warfare 3. Explore the methods to combat the cyber attacks 4. Find the link between international security and cyber warfare 5. Understand the new techniques role in warfare 		
Course Content		
Week 1	Unit-I Concept of Cyber Space	
	Unit-II International Security	
Week 2	Introduction to Cyber Space	
Week 3	Introduction to International Security	
Week 4	Evolution of the Concept Cyber Space	
Week 5	Concept of Cyber Warfare	
Week 6	Purpose of Cyber warfare in security paradigm	
Week 7	Learning of Cyber Weapons	
Week 8	Goals of Cyber Attacks	
Week 9	Mid Term Exam	
Week 10	Types of Cyber Warfare Attacks	
Week 11	Discussion on a Case Study of a Cyber Attack	
Week 12	Concept of Hacking	
Week 13	Cyber security link with Ethical Hacking	
Week 14	Hacking Techniques and methodology	
Week 15	Study of major Cyber Attacks	
Week 16	Cyber warfare Operations and Methods to Combat it	
	Discussion on a Case Study of a Cyber warfare operation	

Textbooks and Reading Material

- Stiennon, Richard. (2010), *Surviving Cyber War*, Rowman and Little Field, UK
- Stiennon, Richard. (2010) *There will be Cyber War*, Rowman and Little Field, UK
- Bidwell, Christopher. And Macdonald, Bruce. (2018), “Emerging Disruptive Technologies and their Potential Threats to Strategic Stability and National Security” Federation of American Scientists.
- Zetter, Kim, “An unprecedented look at Stuxnet, The World;s First Digital Weapon”, November 3, 2014, Retrieved from <http://www.wired.com/2014/11/countdown-to-zero--day-stuxnet>.
- Mishra, Abhinandan,”(2020), Concerns deeper about cyber attacks on SU 30, IAF starts inquiry”, Sunday Guardian Live, <http://www.sundayguardianlive.com>
- Shad, Muhammad.”(2020) Cyber Threat Land Landscape and Readiness Challenge of Pakistan” Strategic Studies

Teaching Learning Strategies

1. Class Lectures
2. Distribution of the reading material to the students
3. Learning trough Case Studies
4. Guest Speaker lecture related to the subject matter

Assignments: Types and Number with Calendar

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| 1. Class Quiz | 5 marks |
| 2. Short Test | 5 marks |
| 3. Presentations | 5 marks |
| 4. Assignment | 10 marks |