

University of Mumbai



AAMS_UGS /ICC/2022-23/ 72

CIRCULAR:-

Sub:- Master of Arts (Defence and Strategic Studies)

Ref :- RB/MU-2022/CR-207/Edn-5/899, dated 18th August, 2022.

All the Principals of the Affiliated Colleges, the Head of the University Department and Directors of the recognized Institutions in Faculty of Humanities are hereby informed that the recommendations made by the Ad-hoc Board of Studies in **Defence and Strategic Studies** at its online meeting held on 2nd February, 2022 vide item No. 3 and subsequently passed in the faculty of Humanities and then by the Board of Deans at its online meeting held on 23rd February, 2022 vide item No. 5.12 (N) have been accepted by the Academic Council at its meeting held on 17th May, 2022, vide item No. 5.12 (N) and subsequently approved by the Management Council at its meeting held on 25th May, 2022 vide item No. 4 and that in accordance therewith, in exercise of the powers conferred upon the Management Council under Section 74(4) of the Maharashtra Public Universities Act, 2016 (Mah. Act No. VI of 2017) the Ordinance 6775 & 6776 Regulations 9530 to 9532 and the syllabus of **Master of Arts (Defence and Strategic Studies) Sem - I to IV (CBCS)** has been introduced and the same have been brought into force with effect from the academic year **2022-23**, accordingly. (The same is available on the University's website www.mu.ac.in).

MUMBAI – 400 032

20th August, 2022

To,

(Dr. Vinod Patil)
I/c. REGISTRAR

The Principals of the Affiliated Colleges, the Head of the University Department and Directors of the recognized Institutions in Faculty of Humanities.

A.C/5.12(N)/17/5/2022

M.C/4/25/5/2022

AAMS_UGS/ICC/2022-23/ 72

20th August, 2022

Copy forwarded with Compliments for information to:-

- 1) The Chairman, Board of Deans
- 2) The Dean, Faculty of Humanities,
- 3) The Chairman, Ad-hoc Board of Studies in Defence and Strategic Studies,
- 4) The Director, Board of Examinations and Evaluation,
- 5) The Director, Board of Students Development,
- 6) The Director, Department of Information & Communication Technology,
- 7) The Co-ordinator, MKCL.

(Dr. Vinod Patil)
I/c. REGISTRAR

UNIVERSITY OF MUMBAI

Item No 5.12



Ser	Heading	Particulars
1	Title of the Programme	Master of Arts (Defence and Strategic Studies) (M.A. (DSS))
2	Eligibility for Admission <i>0.6776</i>	(a) Selection of candidates will be based on nomination by the Service Headquarters based on merit and clearing the in-service Professional Management Exam conducted by Service Headquarters with 16 Years of Service. (b) Any Bachelor's Degree from a UGC recognized University. (c) Or Equivalent Qualification. (d) Foreign candidates should have equivalent degrees from foreign Universities recognized by Association of Indian Universities (AIU). (e) The enrolment to the degree of M.A. will be done soon after the commencement of the Naval Higher Command Course collectively by the Naval War College.
3	Passing Marks	40% Pass Marks
4	Ordinances / Regulations	
5	No. of Years / Semesters	One year – (25 Weeks Contact period and 25 weeks of Distance learning in the form of Research and Dissertation writing). Officers who have already completed Naval Higher Command Course earlier and Directing Staff posted at the College of Naval Warfare will be required to follow only the distance learning phase for Dissertation writing.
6	Level	Certificate/Diploma/UG/PG (Strike out which is not applicable)
7	Pattern	Semester/Yearly (Strike out which is not applicable)
8	Status	Revised/New (Strike out which is not applicable)
9	To be implemented from AY	From Academic Year: 2022 -2023

Name & Signature of BOS Chairperson:

[Signature]
Rear Admiral Sai Venkat Raman

Name & Signature of Dean:

[Signature]

0.6775

Programme: Master of Arts in (Defence and Strategic Studies) (M.A. (DSS)).

1. **Programme Objectives.** To award M.A. Degree in Defence and Strategic Studies to the officers undergoing/ undergoing Naval Higher Command Course and the Directing Staff born at the College of Naval Warfare (Mumbai). The training syllabus is laid down for training Senior Defence Officers at strategic and operational level, fulfilling Integrated Headquarters Ministry of Defence (Navy) requirement.

2. **Programme Outcomes.**

- (a) Gained comprehensive knowledge of prevailing Maritime Security environment in the Indo-Pacific and Indian Ocean Region.
- (b) Acquired knowledge regarding International and National Maritime Laws with relevance.
- (c) Acquired knowledge regarding strategic influence of littoral and extra regional powers in the Indo-Pacific and Indian Ocean Region.
- (d) Gained insights of various initiatives and treaties in-force to maintain secure sea lines for maintaining peace and global trade.
- (e) Able to analyse and give valuable inputs to policy makers for on Maritime Laws.
- (f) Developed the nuances of operational art and the War-gaming techniques.
- (g) Prepared and be informed to effectively take up Command and Senior Staff Appointments.

3. **Eligibility for Admission.** 0.6776

- (a) Selection of candidates will be based on nomination by the Service Headquarters based on merit and clearing the in-service Professional Management Exam conducted by Service Headquarters.
- (b) Any Bachelor's Degree from a UGC recognized University.
- (c) Or Equivalent Qualification.
- (d) Foreign candidates should have equivalent degrees from foreign Universities recognized by Association of Indian Universities (AIU).
- (e) The enrolment to the degree of M.A. will be done soon after the commencement of the Naval Higher Command Course collectively by the Naval War College.

R.9530

4. **Intake Capacity:** 80 officers or as nominated by Integrated Headquarters, Ministry of Defence (Navy).

5. **Course Structure & Distribution of Credits.**

Semester I and II of M.A. (DSS). Semester I and II will be based on the marks and credits obtained by the participants in Professional Management Examination, conducted by the Indian Navy/ parent Service Head Quarters which is a mandatory requirement for admission for M.A. (DSS). The three common subjects appeared by the participant during the in-service Professional Management Examination, totaling 600 marks will be awarded 24 credits and will be considered and equated to Semester I. The remaining three elective subjects appeared by the participants based on their specialisation, totaling 600 marks will be awarded 24 credits and will be considered and equated to Semester II. The details of the Six Subjects as part of Professional Management Examination conducted by the Indian Navy are as follows:-

Qualifying Papers of in-service Professional Management Exam for Semester I

Paper Code	Subject	Credits	Marks
MADSS101	Military/ Naval History, Maritime Strategy/ Operational Concepts and General Knowledge	08	200
MADSS102	Administration, Law, Logistics, Leadership, Safety and Security	08	200
MADSS103	Computer Applications and Nuclear Biological Chemical Defence and Damage Control including Fire Fighting	08	200
Total		24	600

Qualifying Papers of in-service Professional Management Exam for Semester II (Elective Subjects as per Branch of admission)

Paper Code	Subject	Credits	Marks
MADSS201E	Navigation & Direction and Communication (or) General Air Traffic Controllers (or) Regulations for the Navy and Navy Act (or) Guided Weapons (or) Naval Service and Related Matters (Law) (or) Material Logistics (or) Technical Management (or) Naval Architecture – I (or) Education Management (or)	08	200

6. Scheme of Examination and Passing. R. 9531

- (a) Written examination of three hours duration will be conducted for each subject at the end of the course for the two theory papers, by Naval War College as per the existing norms, statutes and ordinances. Each paper will be of 100 marks each.
- (b) To pass, a student has to obtain minimum 40% marks and above.
- (c) Evaluation of Dissertation, will be carried out by a panel comprising of an External Examiner, Guide and a Directing Staff, coordinated by Naval War College for a total of 300 marks.
- (d) The assessment for the theory papers shall be done by the faculty at the College of Naval Warfare. The assessment for the Dissertation paper/ presentation shall be done by the research guides and a joint faculty of the University and the Naval War College.
- (e) Failures in any Theory Paper will be allowed to reappear in the same.
- (f) Dissertation, if not accepted by their assessing authority/guide, can be resubmitted with amendments as advised by the Guide. In such cases, Theory paper marks can be carried forward and candidates need not appear again in the theory papers.

7. Standard of Passing for University Examinations. 40 % Pass Marks
R. 9532

8. Standard Point Scale for Grading.

Grade	Percentage of Marks	Grade Points
O	90 & above	10
A+	80 to 89.99	9
A	70 to 79.99	8
B+	60 to 69.99	7
B	50 to 59.99	6
C	45 to 49.99	5
D	40 to 44.99	4
F (Fail)	39.99 & below	0
AB	Absent	0

9. Semester Grade Point Average (SGPA). The performance of a course participant in a semester is indicated by a number called SGPA. SGPA is the weighted average of the grade points obtained in all the subjects by the course participant during the semester. For example, if a student takes five courses in a semester with credits C1, C2, C3, C4 and C5 and the student's grade point is G1, G2, G3, G4 and G5, respectively and then students SGPA is equal to :



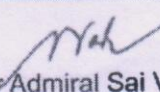
Justification for Introduction of New Course

Programme: Master of Arts (Defence and Strategic Studies) (M.A. (DSS))

1.	Necessity for starting the course	To give academic recognition to officers of Indian Navy, Indian Army, Indian Air Force and Coast Guard undergoing the Naval Higher Command Course at Naval War College, Goa, who possess only a Bachelor's Degree
2.	Whether UGC has recommended to start the course?	Yes
3.	Whether the course has commenced from the Academic Year 2022-23	To Commence from Academic Year 2022-23
4.	The course started by the University are self-financed, whether adequate number of permanent faculty are available?	The course is conducted at Naval War College, Goa to selected serving officers from the Indian Navy, Indian Army, Indian Air Force and Coast Guard. Sufficient SME/ Qualified Officers from the Indian Navy, Indian Army and Indian Air Force are posted at Naval War College, Goa on permanent duty.
5.	To give details regarding the duration of the course and is it possible to compress the course?	One year – (25 Weeks Contact period and 25 weeks of Distance learning in the form of Research and Dissertation writing). Officers who have already completed Naval Higher Command Course earlier and Directing Staff posted at the College of Naval Warfare will be required to follow only the distance learning phase for Dissertation writing

		Four Semester programme, Details as follows:- Marks obtained in Six Papers cleared by the Officers in the in-service Professional Management Exam conducted by the Service Headquarters will be considered for the First and Second semester requirements. Third semester will be contact phase at Naval War College, Goa where the officers will have to attend and clear five papers on Defence and strategic studies Fourth semester will be research work. Officers will be required to submit a Dissertation on a topic approved by Naval War College, Goa. The course has been designed to be conducted in minimum possible duration to employ the participants effectively in the Defence Service.
6.	Intake capacity of each course and the number of admissions given in the current AY	80 participants or as nominated by Integrated Head Quarters Ministry of Defence (Navy).
7.	Opportunity of employability / employment available after undertaking this course	The Officers will be employed in various strategic and decision making appointments in the Indian Navy, Indian Army, Indian Airforce and Coast Guard.

Name & Signature of BOS Chairperson:


Rear Admiral Sai Venkat Raman

Name & Signature of Dean:

Copy to :-

- 1. The Deputy Registrar, Academic Authorities Meetings and Services (AAMS),**
- 2. The Deputy Registrar, College Affiliations & Development Department (CAD),**
- 3. The Deputy Registrar, (Admissions, Enrolment, Eligibility and Migration Department (AEM),**
- 4. The Deputy Registrar, Research Administration & Promotion Cell (RAPC),**
- 5. The Deputy Registrar, Executive Authorities Section (EA),**
- 6. The Deputy Registrar, PRO, Fort, (Publication Section),**
- 7. The Deputy Registrar, (Special Cell),**
- 8. The Deputy Registrar, Fort/ Vidyanagari Administration Department (FAD) (VAD), Record Section,**
- 9. The Director, Institute of Distance and Open Learning (IDOL Admin), Vidyanagari,**

They are requested to treat this as action taken report on the concerned resolution adopted by the Academic Council referred to in the above circular and that on separate Action Taken Report will be sent in this connection.

- 1. P.A to Hon'ble Vice-Chancellor,**
- 2. P.A Pro-Vice-Chancellor,**
- 3. P.A to Registrar,**
- 4. All Deans of all Faculties,**
- 5. P.A to Finance & Account Officers, (F.& A.O),**
- 6. P.A to Director, Board of Examinations and Evaluation,**
- 7. P.A to Director, Innovation, Incubation and Linkages,**
- 8. P.A to Director, Board of Lifelong Learning and Extension (BLLE),**
- 9. The Director, Dept. of Information and Communication Technology (DICT) (CCF & UCC), Vidyanagari,**
- 10. The Director of Board of Student Development,**
- 11. The Director, Department of Students Welfare (DSD),**
- 12. All Deputy Registrar, Examination House,**
- 13. The Deputy Registrars, Finance & Accounts Section,**
- 14. The Assistant Registrar, Administrative sub-Campus Thane,**
- 15. The Assistant Registrar, School of Engg. & Applied Sciences, Kalyan,**
- 16. The Assistant Registrar, Ratnagiri sub-centre, Ratnagiri,**
- 17. The Assistant Registrar, Constituent Colleges Unit,**
- 18. BUCTU,**
- 19. The Receptionist,**
- 20. The Telephone Operator,**
- 21. The Secretary MUASA**

for information.

UNIVERSITY OF MUMBAI



**Syllabus for Master of Arts
(Defence and Strategic Studies)
Semester - Sem I to IV
(Choice Based Credit System)**

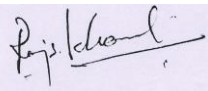
(Introduced from the academic year 2022-23)

Item No _____ UNIVERSITY OF MUMBAI 		
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8	Status	Revised/New (Strike out which is not applicable)
9	To be implemented from AY	From Academic Year: 2022 -2023

Name & Signature of BOS Chairperson:

Rear Admiral Sai Venkat Raman

Name & Signature of Dean:



PREAMBLE

The Master of Arts (Defence and Strategic Studies) (M.A. (DSS)) is being implemented at Naval War College, Goa.

Naval War College (NWC) was established in the year 1988 at Karanja, Mumbai, as College of Naval Warfare. The College was renamed as Naval War College (NWC) in Aug 2010 and shifted to Goa inside INS Mandovi premises in 2011. NWC, Goa commenced its professional military education activities from the present location in Sep 2011.

NWC was set up with a vision to be the pre-eminent iconic institution facilitating higher education, war gaming and cutting edge research on maritime security and warfare at strategic and operational level. The preamble of the college is to prepare officers of the Indian Navy, Army, Air Force and other organisations for Leadership at Strategic and Operational level by developing critical thinking, analytical ability, strategic vision and proficiency in Operational Art.

Naval War College conducts courses for officers from the Indian Navy, Indian Army, and Indian Air force, Coast Guard and DPSU/ Defence Shipyards including participants from friendly foreign countries and maritime experts from civil industries who are senior/ middle level Leaders.

The Master of Art in Defence and Strategic Studies, from University of Mumbai is divided into four semesters, out of which Sem I and Sem II will be based on the marks obtained by the participants in the six papers of the in-service Professional Management Exam conducted by the respective Service Headquarters totaling to 1200 marks. The Sem I and Sem II will have 24 credits each.

The Sem III will be contact Phase and will comprise of 05 subjects. Sem IV will be a non-contact phase will be for carrying out research work towards submission of a Dissertation. The syllabus of these courses is designed to be dynamic and contemporary, that will aid conceptual understanding and synergise field work, research with data analysis.

This programme will educate, train and groom serving officers from the Indian Navy, Indian Army and Indian Air Force, Coast Guard and Defence Public Sector Undertaking (DPSU)/ Shipyards including participants from friendly foreign navies to be prepared for senior staff and command appointments and be an able advisor to the policy makers in tune with the prevailing Geo-political security environment, with emphasis on the maritime domain. The programme can be executed in the blended mode of teaching and learning.

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2. **Programme Outcomes.**

- (a) Gained comprehensive knowledge of prevailing Maritime Security environment in the Indo-Pacific and Indian Ocean Region.
- (b) Acquired knowledge regarding International and National Maritime Laws with relevance.
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- (d) Gained insights of various initiatives and treaties in-force to maintain secure sea lines for maintaining peace and global trade.
- (e) Able to analyse and give valuable inputs to policy makers for on Maritime Laws.
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- (d) Foreign candidates should have equivalent degrees from foreign Universities recognized by Association of Indian Universities (AIU).
- (e) The enrolment to the degree of M.A. will be done soon after the commencement of the Naval Higher Command Course collectively by the Naval War College.

4. **Intake Capacity:** 80 officers or as nominated by Integrated Headquarters, Ministry of Defence (Navy).

5. **Course Structure & Distribution of Credits.**

Semester I and II of M.A. (DSS). Semester I and II will be based on the marks and credits obtained by the participants in Professional Management Examination, conducted by the Indian Navy/ parent Service Head Quarters which is a mandatory requirement for admission for M.A. (DSS). The three common subjects appeared by the participant during the in-service Professional Management Examination, totaling 600 marks will be awarded 24 credits and will be considered and equated to Semester I. The remaining three elective subjects appeared by the participants based on their specialisation, totaling 600 marks will be awarded 24 credits and will be considered and equated to Semester II. The details of the Six Subjects as part of Professional Management Examination conducted by the Indian Navy are as follows:-

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MADSS103	Computer Applications and Nuclear Biological Chemical Defence and Damage Control including Fire Fighting	08	200
Total		24	600

**Qualifying Papers of in-service Professional Management Exam for Semester II
(Elective Subjects as per Branch of admission)**

Paper Code	Subject	Credits	Marks
MADSS201E	Navigation & Direction and Communication (or) General Air Traffic Controllers (or) Regulations for the Navy and Navy Act (or) Guided Weapons (or) Naval Service and Related Matters (Law) (or) Material Logistics (or) Technical Management (or) Naval Architecture – I (or) Education Management (or)	08	200

	Medical/ Dental Administration (or) Advanced IT Concepts and IT policies		
MADSS202E	Weapons and Sensors (or) Survey Instruments and Weapons (or) Air Traffic Management (or) Physical Security and Administration (or) Conventional Armament (or) International Law and Laws of the Seas (or) Financial Logistics Management (or) Marine Engineering – I (or) Naval Architecture – II (or) Electrical Engineering – I (or) Education Philosophy and Learning (or) Hospital Administration (or) Cyber Security (or) Air Engineering – 1 (or) Air Electrical - 1	08	200
MADSS203E	Machinery, Equipment of Warships and Ships Management (or) Air Administration (or) Acts and Regulations Affecting Service Personnel (or) Quality Assurance of Naval Armament (or) Civil Laws/ Rules for Naval Law (or) General Management (Logistics) (or) Marine Engineering – II (or)	08	200

	Naval Architecture – III (or) Electrical Engineering – II (or) Training Methodology, Meteorology/ Oceanology and Welfare Activities (or) Health Administration (or) Network Operations and Management (or) Air Engineering – II (or) Air Electrical – II (or) INAP, Avionics, Air Regulations		
Total		24	600

Semester III. Semester III comprises of 05 papers with total 24 credits. Two sessions will comprise of 02 hours each. The subject details are as follows:-

SI No	Subject Code	Subject Title	Session	Credits	Marks
(a)	MADSS301	Maritime Strategy	75	04	100
(b)	MADSS302	Operational Art of Warfare	75	04	100
(c)	MADSS303	Operational Research	100	08	200
(d)	MADSS304	Campaign Studies	75	04	100
(e)	MADSS305	Core Issue Studies	75	04	100
Total			400	24	600

Semester IV (M.A. (DSS)). M.A. (Defence and Strategic Studies) Dissertation Based Research Work, **25 weeks, 24 credits, 600 marks.**

M.A. (Defence and Strategic Studies) for Semester IV consists of full term Dissertation Based Research Project of 24 credits. Every student will have to complete a separate project with 24 credits totaling 600 marks. Students would be required to prepare and submit a Master level thesis and the final evaluation will be done by a panel comprising of an Expert, Guide and a DS nominated at Naval War College on the bases of the quality of the thesis and Viva-Voce examination. This Semester will be a non-contact phase of the programme, with online contact programmes as necessary for a duration of 25 weeks.

The candidate shall be awarded a Master of Arts (Defence and Strategic Studies), University of Mumbai after completing the course.

6. **Scheme of Examination and Passing.**

- (a) Written examination of three hours duration will be conducted for each subject at the end of the course for the two theory papers, by Naval War College as per the existing norms, statutes and ordinances. Each paper will be of 100 marks each.
- (b) To pass, a student has to obtain minimum 40% marks and above.
- (c) Evaluation of Dissertation, will be carried out by a panel comprising of an External Examiner, Guide and a Directing Staff, coordinated by Naval War College for a total of 300 marks.
- (d) The assessment for the theory papers shall be done by the faculty at the College of Naval Warfare. The assessment for the Dissertation paper/ presentation shall be done by the research guides and a joint faculty of the University and the Naval War College.
- (e) Failures in any Theory Paper will be allowed to reappear in the same.
- (f) Dissertation, if not accepted by their assessing authority/guide, can be resubmitted with amendments as advised by the Guide. In such cases, Theory paper marks can be carried forward and candidates need not appear again in the theory papers.

7. **Standard of Passing for University Examinations.** 40 % Pass Marks

8. **Standard Point Scale for Grading.**

<u>Grade</u>	<u>Percentage of Marks</u>	<u>Grade Points</u>
O	90 & above	10
A+	80 to 89.99	9
A	70 to 79.99	8
B+	60 to 69.99	7
B	50 to 59.99	6
C	45 to 49 .99	5
D	40 to 44 .99	4
F (Fail)	39.99 & below	0
AB	Absent	0

9. **Semester Grade Point Average (SGPA).** The performance of a course participant in a semester is indicated by a number called SGPA. SGPA is the weighted average of the grade points obtained in all the subjects by the course participant during the semester. For example, if a student takes five courses in a semester with credits C1, C2, C3, C4 and C5 and the student's grade point is G1, G2, G3 , G4 and G5, respectively and then students SGPA is equal to :

$$\text{SGPA (S)} = \frac{G1C1+G2C2+G3C3+G4C4+G5C5}{C1+C2+C3+C4+C5}$$

$$\text{C1+C2+C3+C4+C5}$$

SPGA is calculated to two decimal points. It should be noted that, the SPGA for any semester shall take into consideration the F and ABS grade point value (G) awarded in that semester a Zero.

10. **Cumulative Grade Point Average (CGPA).** CGPA is calculated with the SGPA of all the four semesters to the two decimal points and is indicated in final grade report card/ final transcript showing the grades of all four semesters and their courses. The CGPA shall reflect the failed status in case of F grades, till the course(s) is/are passed. When the course(s) is/are passed by obtaining a pass grade on subsequent examination(s) the CGPA shall only reflect the new grade and not the fail grades earned earlier. CGPA is calculated as:

$$\text{CPGA} = \frac{S1C1+S2C2+S3C3+S4C4}{C1+C2+C3+C4+C5}$$

$$\text{C1+C2+C3+C4+C5}$$

where C1, C2, C3 and C4 is the total number of credits for Semester I, II, III and IV respectively and S1, S2, S3 and S4 are the SPGA obtained in Semester I, II, III and IV respectively.

11. **Declaration of Results.** Although the GPA is a standalone system of grading and not amenable to facile conversion to percentage marks, in general, the conversion of CGPA to percentage marks is $\text{CGPA} \times 9.5 = \text{Percentage Marks}$. The class shall be awarded on the basis of CGPA as follows:-

- | | | |
|----------------------------------|---|------------------------|
| (a) First Class with Distinction | - | CGPA of 7.37 and above |
| (b) First Class | - | CGPA of 6.32 to 7.36 |
| (c) Second Class | - | CGPA of 6.00 to 6.31 |

12. **Award of Degree.** Candidates who fulfil the requirements mentioned above shall be eligible for award of degree during the ensuing convocation.

13. **Duration of Completion of the programme of study.** Duration for completion of the programme of study shall be fixed as per the norms of the University of Mumbai.

SCHEME OF SUBJECTS FOR M.A. IN DEFENCE AND STRATEGIC STUDIES

Semester III

Subject Code: MADSS301, Subject Title: Maritime Strategy, 75 Sessions (02hrs/ Session), Max Marks-100, 04 Credits

Subject Objective: At the end of the course, the participant will be able to carry out maritime strategy analysis involving higher Defence Decision Making techniques and maritime logistic management.

Syllabus:-

Strategy

1. Land, Air, Maritime and Nuclear Strategy.
2. Analysis of maritime and military strategists.
3. Elements of National Power.
4. Geo-Politics and Regional Security Studies of South –Asia and IOR.
5. India's Foreign Policy.
6. Major Power relationship in Asia.
7. Globalisation
8. Economic issues
9. Challenges and Dilemmas facing India as it emerges in the 21st Centaury

Higher Defence Decision Making

10. National Security Council.
11. Higher Defence Decision Making Organisation.
12. Force Structuring and Defence Planning concepts.
13. Financial Planning.
14. Research and Development Programmes.
15. Human Resources Management.
16. Civil-Military relationship
17. Challenges of Leadership in the 21st Century.

Logistic Management

18. Logistic support for Maritime Ops.
19. Maintenance and Infrastructure Creation.
20. Management of Training.
21. Management of Civilians

Recommended Books:-

1. National Security Policy by PS Jayaram
2. Security in the New World Order by SD Sinha
3. Asian Security in the 21st Century by Air Cmde J Singh
4. Economics of Defense in the Nuclear Age by CJ Hitch, RN MCkean
5. Nuclear Proliferation: The US-Indian Conflict by Brahma Chellaney
6. India's Nuclear Weapons Programme by Shamsa Nawaz
7. Future of Land Based Strategic Missiles by BG Levi, M Sakitt, Art Hobson
8. Nuclear Proliferation & the Near Nuclear Countries by Marwah, Schlz
9. Nuclear India by Cmde J Singh
10. Nuclear Strategy by Raja Menon
11. Blue Print to Blue Water IN (1951-1965) by RAdm S Singh AVSM
12. Pearl Harbour Final Judgement by Henry C Glausen/ Bruce Lee
13. Indian Navy: an Illustrated History by Raja Menon
14. Indian Army by Dr S Radhakrishnan
15. War in Space by Nigel Flynn
16. Indian Army by Lt Gen SL Menezes
17. Maritime History of India by RAdm K Krishnan
18. Great War & the Shaping 20th Century by Jay Winter & Blaine Beggett
19. Indian Military Revival by Maj GD Bakshi
20. Trends in India's Defence Expenditure by Y Lakshami
21. Economic of Defence by Dr Jai Narayan
22. Defence & Foreign Policies of India by V Lunger
23. Diplomacy of Peace and War by TN Kaul
24. India's Foreign Policy by MG Gupta
25. History of the Indian Navy 1613-1863 by CR Low
26. Evolution of National Strategy of India by Col Ravi Nanda
27. India Security Problems in the Nineties by Rakesh Gupta
28. Maritime Security & Peacekeeping by Michael Pugh
29. Navies & Foreign Policy by K Booth
30. Studies in Defence by Eston T white
31. Dimensions of Military Strategy by Eston T White
32. Maritime Strategy and Continental Wars by Raja Menon
33. NATO& U.S. Maritime Strategy by Ellmann Ellingsen
34. Maritime Strategy and the Nuclear Age by Geoffrey Till
35. Maritime Strategy for Medium Powers by RAdm JR Hill
36. Supreme Command, Soldiers, Statesman and Leadership by Eliot Cohen
37. A Military History of China by David A Graff & Robin Higham
38. Political Influence of Naval Force in History by James Cable
39. Salt and Steel by Edward L Beach

40. Victory on the Potomac: The Gold Water by James R Locjer III
41. Naval Strategy in the North East Asia: Geostrategic Goals and Policies by Duk-Ki-Kin
42. Text Book of Project Management by P Gopalakrishnan
43. Project Management by Ving Sharon Le
44. Practical Time Management by Bradley C.Mc Rae
45. Ethics Management by LaRue Tone Hosmer
46. Personnel/Human Resource Management by Heneman
47. Management Ideas in Action by Deepak Mahindra
48. Team Management by Charles Mrgerison
49. Excellence in Management by MK Rustomji
50. Human Resources Management by Santrupt Mishra
51. Financial Management by IM Pandey
52. Logistic Support & Material Management by CDM
53. Stress Management by Edward A Charlesworth, Ph.D
54. Adv. Technology Warfare by Friedman Richards
55. International Transfer of Technology by SM Mukerjee
56. Advanced Technology Warfare by Col Richard S Friedman
57. Management of Technology by Edward P. Hawthorne
58. Impact of New Military Technology by Jonathan Alford
59. Tomorrow War-The Threat of High Technology Weapons by David Sukman
60. The Information Technology Act by D.N Panda
61. Military Technology and Defence Industrialisation by SK Sen
62. Technology Control Regimes for a Str. Response by NHQ/DNI
63. Technology Strategic and National Security by F.D Marigotta
64. National Security and Modern Technology by Dr Raja. Ramana
65. Science Technology & International by Pranav N Desai
66. Technology and Terrorism by Paul Wilkinson
67. Management of Technology Change by A.S Rao
68. With Pride & Honour: The Biography of Admiral RL Pereira – Anup Thomas
69. Seapower: A Guide for the Twenty-First Century – Geoffrey Till
70. Mahan Corbett & Foundation of Naval Strategic Thought – Kevin McCranie
71. World War II at Sea: A Global History – Craig Symonds
72. One Hundred Days: The Memoirs of the Falklands Battle Group Commander – Sandy Woodward
73. The Royal Indian Navy: Trajectories, Transformation & Transfer of Power – Kalesh Mohanan
74. Shedding Shibboleths By K Subrahmanyam
75. India's Security in a Turbulent World by Jasjit Singh
76. Kautilya Arthashastra by LN Rangarajan
77. On War by Clausewitz
78. Art of War by Sun Tzu

79. India and the Indian Ocean By KM Panikkar
80. From the Crow's Nest: A Compendium of Speeches and Writings on Maritime and other issues by Adm Arun Prakash (Retd)
81. World Order by Henry Kissinger
82. Diplomacy by Henry Kissinger
83. The Revenge of Geography : What the Map Tells Us About Coming Conflicts and the Battle Against Fate by Robert D Kaplan
84. The India Way by S Jai Shankar
85. A Splendid Exchange by William J. Bernstein
86. Nuclear Strategy: India's March Towards Credible Deterrence by Manpreet Sethi
87. No Way but Surrender by VAdm Nilakantha Krishnan
88. Fighting to the End: The Pakistan Army's Way of War by C Christine Fair
89. Idea of Pakistan by Stephen P Cohen
90. Operation X by MNR Samant and Sandeep Unnithan
91. Pakistan: Courting the Abyss by Tilak Devasher
92. On China by Henry Kissinger
93. The Hundred Year Marathon: China's Secret Strategy to Replace America as the Global Superpower by Michael Pillsbury
94. China's India War by Bertil Lintner
95. The Ultimate Goal by Vikram Sood
96. Techniques of Statecraft : A Study at Kautilya's Arthasastra by Aradhana Parmar
97. The Landmark Thucydides by Thucydides
98. Some principles of Maritime Strategy by Julian S Corbett
99. Mahan on Naval Strategy lectures by Alfred Thayer Mahan

Subject Code: MADSS302, Subject Title: Operational Art of Warfare, 75 sessions (02hrs/ Session), Max Marks-100, 04 Credits

Subject Objective: At the end of the course, the participant will be able to carry out the Operational and Tactical tasks as specified by higher formations involving Joint Military Operations involving modern technology.

Syllabus:-

Operational of War

1. Operational Art.
2. Joint Operations.
3. Maritime Operations.
4. Land Warfare.
5. Air Operations.
6. Concepts of Maritime Air Operations.
7. Intelligence and Communication capabilities.
8. Deployment of Coast Guard.
9. Indian Merchant Marine Management.
10. Operational Level War Game at NWC

Joint Operations

11. Joint Operations Capsule.
12. Theatre Level Warfare.
13. Visits to Army and Air Force formations deployed in forward areas.

Technology

14. Concept of RMA.
15. Technological Capabilities in Defence.
16. Cyber Network System and Information Warfare.
17. Visits to R&D Labs and Industry.

Recommended Books:-

1. Op Art by Milan Vego
2. Doctrine for Joint Operations by Joint Publication
3. Dangerous Waters, Modern Piracy and Terror on the High Seas by John S Burnett
4. The Naval Battle of Guadal Canal by James W Grace

5. Air Power in the Age of Total War by John Buckley
6. Salt and Steel by Edward L Beach
7. Nerve Centre by Michael K Bohn
8. Asymmetrical Warfare, Today's Challenge to US Military Power by Roger W Barnett
9. Pursuit – The Chase & Sinking of the Battleship Bismarck by Ludovic Kennedy
10. Modern War by Charles Townhand
11. India's Armed Forces by Maj Jodh Singh
12. Nuclear India by Air Cmde J Singh
13. Brasstacks & Beyond by KP Bajpai, PR Chari
14. Avoiding Nuclear War by Brassey's
15. Principles of Global Security by K Subramanyam
16. Global Defense by Geoffrey Williams
17. Arms Races, Arms Control by Walter Israd
18. Diplomacy at Sea by James Cable
19. Pakistan's Nuclear Dilemma by Akhtar Ali
20. Nuclear Proliferation & the Third world by TT Poulouse
21. Nuclear Proliferation International Security by K Subramanyam
22. Nuclear Weapons by B Sen Gupta
23. To win a Nuclear War by D Axelord
24. India's Nuclear Policy by MB Alam
25. Strategy & Nuclear Deterrence by Steven E Miller
26. Limited War Revisited by Robert E Osgood
27. Indian Sword Strikes in East Pakistan by Maj Gen L Singh
28. Victory in Bangladesh by Maj Gen L Singh
29. Guerilla Warfare & Special Forces Operations by Marshal
30. Fourth round Indo-Pak War by Ravi Rikhe
31. Future Fire by Ann Marien Cunningham
32. Pakistan Army by Stephan P Cohen
33. Islamic Bomb by Steve Weissman
34. Military & Politics in Pakistan by Hasan-Askari Rizvi
35. Nuclear Bomb & Pak by VD Chopra
36. Pakistan's Security by Air Cmde Zulficar Ali Khan
37. Technology Trap by Timothy Garden
38. India's Progress in Science & Technology by Najma Heptulla
39. Technology Strategy & National Security by Franlik D.Margoitta
40. Building a Defence Technology Base by Maj Gen BD Kapur
41. Adv. Technology Warfare by Friedman Richards
42. International Transfer of Technology by S Mukerjee
43. Advanced Technology Warfare by Col Richard S Friedman
44. Management Technology Warfare by Edward P. Hawthorne
45. Impact of New Military Technology by Jonathan Alford

46. Tomorrow War - The Threat of High Technology Weapons by David Shukman
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50. Technology Strategy & National Security by F.D Marigotta
51. National Security and Modern Technology by Dr Raja Ramana
52. Science Technology & International Cooperation by Pranav N Dessai
53. Technology and Terrorism by Paul Wilkinson
54. Management of Technology Change by A.S Rao
55. On Operations: Operational Art and Military Discipline – B.A. Friedman
56. Seapower: A Guide for the 21st Century by Jeffrey Till
57. The Tech Whisperers by Jaspreet Bindra
58. Industries of the Future by Alec Ross
59. The Future is faster Than you Think by Peter Diamandis & Steven Kotler
60. Seapower and the State by Sergey Gorshkov
61. Joint Operational Warfare: Theory and Practice by Milan Vego

Subject Code: MADSS303, Subject Title: Operational Research, 100 sessions (02hrs/ Session), Max Marks-200, 08 Credits

Every participant is required to carry out directed study on Operational Matters and submit a paper of Approx-**5000-6000 words**. The Paper is pitched at the Operational Level and may include broad arrears of research such as Maritime and Joint Operations, Information Warfare/PsyOps/Media, Military Doctrine/Strategy, Higher Defence Management, International Relations and Area Studies, Naval/Military Technology/Industry/Futures, International and Maritime Law, Morals & Ethics/Leadership and Joint/maritime Logistic etc. The paper would be shared with Professional directorates and policy makers and therefore, the recommendations must address the statements of Problem or Hypothesis. The topic of Operational Research would be finalised by Naval War College, Directing Staff Body. The evaluation of the paper will be carried out by the Directing Staff at Nava War College only since the area of research could be confidential in nature.

Subject Code: MADSS304, Subject Title: Campaign Studies, 75 sessions (02hrs/ Session), Max Marks-100, 04 Credits

Every participant is required to carry out directed study on Indian/ World Campaigns, using the tents of Operational Art of War. The Campaign would be selected by the DS Body at Naval War College, Goa. The campaign study will also include Wargame's which would be conducted at both NWC, Goa and during Joint Operations Capsule (JOCAP) at Army War College, Mhow. The deliverables would include preparations of Commanders Estimate of the Situation (CES), apart from other functions /applications/activities required as per game- role allotted during War Game. The Evaluation will be carried out by the DS, Body at Naval War College only since the CES will be of National Security relevant.

Subject Code: MADSS303, Subject Title: Core Issue Studies, 75 sessions (02hrs/ Session), Max Marks-100, 04 Credits

Every participant is required to carry out directed study on a Core Issue based on a Situation/ Directives issued by the Integrated Headquarters, Ministry of Defence (Navy) on a topic of relevance affecting the National Security of the Country. The Core Issue Study would be undertaken as syndicate work and would eventually be presented during the Commanders Conclave which is presided by the Chief of the Naval Staff and Commander of Chiefs of the Naval Commands. The evaluation will be carried out by the DS Body at Naval War College only since the topic will be of National Security relevant.

Semester IV

Subject Code: MADSS401 Subject: Dissertation, Max Marks – 600, Non-Contact Phase of 25 weeks.

1. The officers appearing for the M.A. Degree will be required to undertake a detailed research on a subject of contemporary relevance. A list of topics for the research will be drawn out by the faculty of the Naval War College and the concurrence of the College Advisory Council members. Out of this list, participants will be required to give a choice of the three subjects and faculty will allot the topic for individual research. Guides for the subject may be chosen from the Senior Naval officers or an eminent personality from the respective field.

2. Officers will be required to undertake a detailed research on the topic allocated during the 'Distance learning' Phase and prepare a thesis of about 12000 words. The thesis will require careful study and well-reasoned logical thinking, analytical ability, ingenuity and power of expression.

3. **Officers having undergone NHCC and Directing Staff Borne at NWC, Goa.** All officers who have attended NHCC/ Equivalent course abroad earlier and the officers borne at the college of Naval Warfare as Directing Staff, desirous of obtaining the M.A. Degree in Defence and Strategic Studies Degree, will be required to undertake research on a topic decided by Naval War College faculty and prepare Dissertation paper of about 12000 words. This Dissertation would be required to be submitted to NWC for analysis. Officers will also be required to make a presentation on the subject to a combined faculty of the University of Mumbai and the Naval War College, followed by a Viva Voce. M.A. Degree will be awarded based on the result of the Dissertation and the Viva Voce.

4. **Recommended Books.**

- (a) How to Read a Book by Mortimer Adler
- (b) Research Methodology – C.R. Kothari

5. **Evaluation** The total assessment for the research work/ presentation/Viva Voce would be of 600 marks with a passing percentage of 40%. The breakdown of marks for the research work will be as follows:-

(a)	Evaluation of Dissertation by Guide	- 150 marks
(b)	Evaluation of Dissertation by External Examiner	- 150 marks
(c)	Evaluation during Viva Voce	- 200 marks
(d)	Quality of presentation	- 100 marks
Total		- 600 marks