

SCHEME and SYLLABUS

for

NATIONAL CADET CORPS

Naval Wing

module of all 06 semesters

for

Under Graduate Courses

at

J. C. Bose University of Science and Technology, YMCA

(w.e.f. session 2021-2022)



NCC OFFICE
J. C. BOSE UNIVERSITY OF SCIENCE AND TECHNOLOGY
YMCA, FARIDABAD

NATIONAL CADET CORPS



GROOMING TOMORROW'S LEADERS

OFFERING NCC A GENERAL GENERIC ELECTIVE CREDIT COURSE IN UNIVERSITIES UNDER CHOICE BASED CREDIT SYSTEM TO ALIGN WITH NEW EDUCATION POLICY 2020

NCC institutional training includes basic military training of the cadets as part of the curriculum with its long-standing effort to mould young volunteers into disciplined and responsible citizens of India. NCC course is aimed to achieve following learning objectives: - (a) Develop character, camaraderie, discipline, secular outlook, the spirit of adventure, sportsman spirit and ideals of selfless service amongst cadets by working in teams, honing qualities such as self-discipline, self-confidence, self-reliance and dignity of labor in the cadets. (b) To create interest in cadets by including and laying emphasis on those aspects of Institutional Training which attract young cadets into the NCC and provides them an element of thrill and excitement. (c) To inculcate defense Services work ethos that is characterized by hard work, sincerity of purpose, honesty, ideal of selfless service, dignity of labor, secular outlook, comradeship, spirit of adventure and sportsmanship. (d) To create a pool of organized, trained and motivated youth with leadership qualities in all walks of life, who will serve the Nation regardless of which career they choose. (e) To provide conducive environment to motivate young Indians to choose the Armed Forces as a career.

Scheme of NCC Elective Subject

NCC GENERAL ELECTIVE CREDIT COURSE DESIGN SUMMARY					
Semester	Credits Allocated			Total	Remarks
	Theory	Practical	Camp		
Semester - I	01	01	-	02	
Semester - II	01	01	-	02	
Semester - III	01	01	05	07	Credits of 1 st Camp merged with 3 rd Sem
Semester - IV	02	01	-	03	
Semester - V	01	01	05	07	Credits of 2 nd Camp merged with 5 th Sem
Semester - VI	02	01	-	03	
Total	08	06	10	24	Twenty-Four Credits

**NCC (UG)-Six Semester Course
(Effective from Session 2021-22)**

Semester-I									
Paper No.	Paper Title	Teaching Scheme			Examination Scheme			Duration of Exam (Hr)	Credit
		L (Hr/w)	P (Hr/w)	Camp	Sessional Marks	End term Marks	Total		
NCC-101	National Cadet Corps-I	1			25	75	100	3	1
NCC-102	National Cadet Corps-I (Practical)		2		15	35	50	3	1
Total		15	30		25	125	150		2
Semester-II									
NCC-201	National Cadet Corps-II	1			25	75	100	3	1
NCC-202	National Cadet Corps-II (Practical)		2		15	35	50	3	1
Total		15	30		25	125	150		2
Semester-III									
NCC-301	National Cadet Corps-III	1			25	75	100	3	1
NCC-302	National Cadet Corps-III (Practical)		2		15	35	50	3	1
NCC-303	NCC CAMP -I	-	-	-	--	250	250		5
Total		45 (15+30*)	120 (30+90*)		25	375	400		7 (2+5*)
Semester-IV									
NCC-401	National Cadet Corps-IV	2			25	75	100	3	2
NCC-402	National Cadet Corps-IV (Practical)		2		15	35	50	3	1
Total		30	30		25	125	150		3
Semester-V									
NCC-501	National Cadet Corps-V	1			25	75	100	3	1
NCC-502	National Cadet Corps-V (Practical)		2		15	35	50	3	1
NCC-503	NCC CAMP TH-II				--	250	250		5
Total		45 (15+30*)	120 (30+90*)		25	375	400		7 (2+5*)
Semester-VI									
NCC-601	National Cadet Corps-VI	2			25	75	100	3	2
NCC-602	National Cadet Corps-VI (Practical)		2		15	35	50	3	1
TOTAL		30	30		25	125	150		3
Grand Total		180 (120+60*)	360 (180+180*)				1400		24

* teaching learning activity will be carried out during camp by NCC Unit staff.

Methods of Content Interaction: Lecture, extension/experts/invited lecture, Tutorials, Group discussion, Collaborative work, Self-study, Seminar presentations by cadets/students, individual and group drills, group and individual field-based assignments, Educational Excursion

Assessment and Evaluation: According to given scheme or as per the University norms where it is not mentioned.

Theory

S. NO.	SUBJECT	I	II	III	IV	V	VI	TOTAL
1	NCC General	6	-	-	-	-	-	
2	NIA	4	-	-	-	-	-	
3	PD	2	5	5	4	6	3	
4	Leadership	-	5	4	3	-	-	
5	DM	-	-	3	10	-	-	
6	SSCD	3	5	-	-	-	-	
7	Adventure	-	-	1	-	-	-	
8	Environmental awareness & conservation	-	-	-	3	-	-	
9	General Awareness	-	-	-	4	-	-	
10	Border & Coastal Areas	-	-	2	-	2	2	
11	Naval Orientation	-	-	-	6	3	3	12
12	Naval Communication	-	-	-	-	2	-	2
13	Navigation	-	-	-	-	2	-	2
14	Seamanship	-	-	-	-	-	15	15
15	FFDC				-	-	4	4
16	Ship & Boat Modelling				-	-	3	3
	TOTAL	15	15	15	30	15	30	120
	TOTAL Credit	1	1	1	2	1	2	08

Practical

Ser	SUBJECT	I	II	III	IV	V	VI	TOTAL
1.	DRILL	12	12	8	7	3	3	45
2.	Naval Communication	3	3	3	3	3	3	18
3	Navigation	-	-	-	-	-	3	3
4	Weapon Training	5	4	4	4	4	4	25
5	Seamanship	3	3	3	3	3	3	18
6	FFDC	-	-	-	-	-	3	3
7	Ship & Boat Modelling	-	2	2	2	2	2	10
8	SSCD	7	5	5	6	5	10	38
9	H&H	-	-	-	5	5	-	10
10	OT	-	-	5	-	5	0	10
11	TOTAL	30	30	30	30	30	30	180
	TOTAL Credit	1	1	1	1	1	1	6

**NCC-101, National Cadet Corps-I
General Elective Course
First Semester**

No. of Credits: 1

L-T-P Total

1-0-0 1

Sessional: 25 Marks

Theory: 75 Marks

Total: 100 Marks

Duration of Exam: 3 Hours

Pre- Requisite: Nil

Successive: NCC-II to NCC-VI

Theory (15 Hrs)

Unit 1- NCC General (NCC) (Contact Hrs. 06).

Introduction of NCC, History, Aims, Objective of NCC & NCC as Organization, Incentives of NCC, Duties of NCC Cadet. NCC Camps: Types & Conduct.

Unit 2- National Integration & Awareness (NI) (Contact Hrs. 04).

National Integration: Importance & Necessity, Factors Affecting National Integration, Unity in Diversity & Role of NCC in Nation Building, Threats to National Security.

Unit 3- Personality Development (PD) (Contact Hrs. 2).

Intra & Interpersonal skills - Self-Awareness- & Analysis, Empathy, Critical & creative thinking, Decision making and problem solving.

Unit 4- Social Service and Community Development (SSCD) (Contact Hrs. 03).

Basics of social service and its need, Types of social service activities, Objectives of rural development programs and its importance, NGO's and their contribution in social welfare, contribution of youth and NCC in Social welfare.



NCC-102, National Cadet Corps-I (Practical)
General Elective Course
First Semester

No. of Credits: 1
L-T-P Total
0-0-2 2

Internal: 15 Marks
External: 35 Marks
Total: 50 Marks
Duration of Exam: 3 Hours

**Practical will be conducted by PI staff of NCC Battalion (1 Haryana Naval NCC) at University/Battalion. Evaluation for the same will be done and marks will be forwarded by Battalion to University after completion of particular semester.*

Practical (30 hrs.)

1. Drill

Foot Drill- Drill ki Aam Hidayaten, Word ki Command, Savdhan, Vishram, Aram Se, Murdna, Kadvar Sizing, Teen Line Banana, Khuli Line, Nikat Line, Khade Khade Salute Karna Parade Par, Visarjan, Line Tod, Tej Chal, Tham aur Dhire Chal, Tham.

2. Weapon Training

Introduction & Characteristics of .22 rifle, Handling of .22 rifle.

3. Naval Communication

Introduction to Naval Modern Communication, Purpose & Principles (a) Introduction of Naval communication (b) Duties of various communication sub department

4. Seamanship

Anchor work: Parts of Anchor and Cable, their identification, Introduction to rigging Practical Bends & Hitches: Reef Knot, Half Hitch, Clove Hitch, Rolling Hitch, Timber Hitch, Bow line, Round Turn and Two Half Hitch and Bow Line on the Bight and its basic element and uses, Introduction to Shackles, Hooks, Blocks and Derricks, Coiling down and splicing of rope

5. Social Service and Community Development

Cadets will participate in various activities throughout the semester e.g., Blood donation Camp, Swachhata Abhiyan, Constitution Day, Jan Jeevan Hariyali Abhiyan, Beti Bachao Beti Padhao etc.

एकता और अनुशासन

NCC-201, National Cadet Corps-II
General Elective Course
Second Semester

No. of Credits: 1
L-T-P Total
1-0-0 1

Sessional: 25 Marks
Theory: 75 Marks
Total: 100 Marks
Duration of Exam: 3 Hours

Pre- Requisite: NCC-I

Successive: NCC-III to NCC-VI

Theory (15 Hrs)

Unit 1. Personality Development (PD) (Contact Hrs.5)

(i) Thinking- Meaning and Concept of thinking, Reasoning, Process of thinking. (ii) Critical Thinking- Meaning & concept of critical thinking, Features of critical thinking, Process of critical thinking. (iii) Creative thinking- Meaning & concept of creative thinking, Features of creative thinking, Process of creative thinking, levels of Creativity, Characteristics of creative person.

Unit 2. Leadership Development (L) (Contact Hrs.5)

(i) Leadership capsule. (ii) Important Leadership traits, Indicators of leadership and evaluation. (iii) Motivation- Meaning & concept, Types of motivation. Factors affecting motivation. (iv) Ethics and Honor codes.

Unit 3. Social Service and Community Development (SSCD) (Contact Hrs. 5)

Protection of Children & Women Safety. (ii) Road/Rail Safety. (iii) New Government Initiatives. (iv)Cyber and mobile Security Awareness.

एकता और अनुशासन

NCC-202, National Cadet Corps-II (Practical)
General Elective Course
Second Semester

No. of Credits: 1
L-T-P Total
0-0-2 2

Internal: 15 Marks
External: 35 Marks
Total: 50 Marks
Duration of Exam: 3 Hours

**Practical will be conducted by PI staff of NCC Battalion (1 Haryana Naval NCC) at University/Battalion. Evaluation for the same will be done and marks will be forwarded by Battalion to University after completion of particular semester.*

Practical (30 hrs.)

1. Drill

Foot Drill Dahine, Baen, Aageaur Piche Kadam Lena. Tej Chal se Murdna, Tej Chal se Salute Karna, Tej Kadam Taal aur Tham, Tej Kadam Taal se Kadam Badalna. Teeno Teen se Ek File aur ek file se Teeno Teen Banana

2. Weapon Training

Range procedure & Theory of group. Short Range firing.

3. Naval Communication

Semaphore, use of semaphore, introduction of various letter position, Reading of semaphore message, Transmission of semaphore message

4. Seamanship

Parts of a Boat and parts of an Oar, Instructions on Boat Pulling - Pulling orders, steering of boats under oars, Practical Instructions on Boat Pulling, precautions while pulling

5. Social Service and Community Development

Cadets will participate in various activities throughout the semester e.g., Blood donation Camp, Swachhata Abhiyan, Constitution Day, Jan Jeevan Hariyali Abhiyan, Beti Bachao Beti Padhao etc. as per the requirement and similar announced days- National and state level.

6. Ship & Boat Modelling

Maintenance and Care of Tools, Care and Handling of Power Tools used, Maintenance & purpose of tools

एकता और अनुशासन

**NCC-301, National Cadet Corps-III
General Elective Course
Third Semester**

No. of Credits: 1
L-T-P Total
1-0-0 1

Sessional: 25 Marks
Theory: 75 Marks
Total: 100 Marks
Duration of Exam: 3 Hours

Pre- Requisite: NCC-I & II

Successive: NCC-IV to NCC-VI

Theory (15 Hrs)

Unit 1. Personality Development (PD) (Contact Hrs.5)

(i) Group Discussions - Change your Mindset (ii) Public Speaking.

Unit 2. Leadership Development (L) (Contact Hrs.4).

Case Studies – APJ Abdul Kalam, Deepa Malik, Maharana Pratap, N Narayan Murthy.

Unit 3. Disaster Management (DM) (Contact Hrs. 3)

(i) Disaster Management Capsule. (ii) Organisation. (iii) Types of Disasters. (iv) Essential Services. (v) Assistance. (vi) Civil Defence Organisation.

Unit 4. Adventure (AD) (Contact Hrs. 1).

Adventure activities.

Unit 5. Border & Coastal Areas (BCA) (Contact Hrs. 2).

History, Geography & Topography of Border/ Coastal Areas

एकता और अनुशासन

NCC-302, National Cadet Corps-III (Practical)
General Elective Course
Third Semester

No. of Credits: 1

L-T-P Total

0-0-2 2

Internal: 15 Marks

External: 35 Marks

Total: 50 Marks

Duration of Exam: 3 Hours

**Practical will be conducted by PI staff of NCC Battalion (1 Haryana Naval NCC) at University/Battalion. Evaluation for the same will be done and marks will be forwarded by Battalion to University after completion of particular semester.*

Practical (30 hrs.)

1. Drill

Arm Drill. Rifle ke saath Savdhan, Vishram aur Aram se. Rifle ke saath Parade Par aur Saj, Rifle ke saath Visarjan, Line Tod. Bhumi Shastra aur Uthao Shastra, Bagal Shastra aur Baju Shastra.

2. Weapon Training

Short Range firing.

3. Naval Communication

Phonetic Alphabets

4. Seamanship

Demonstrate Rigging a DK Whaler Boat - Parts of sail and Sailing terms

5. Social Service and Community Development

Cadets will participate in various activities throughout the semester e.g., Blood donation Camp, Swachhata Abhiyan, Constitution Day, Jan Jeevan Hariyali Abhiyan, Beti Bachao Beti Padhao etc as per the requirement and similar announced days- National and State level.

6. Ship & Boat Modelling

Types of Models, Basic knowledge about reading of Diagrams and construction of Ship Models.

7. Obstacle Training

Obstacle training - Introduction, Safety-measures, Benefits. Obstacle Course- Straight balance, Clear Jump, Gate Vault, Zig- Zag Balance, High Wall.

एकता और अनुशासन

**NCC-303, National Cadet Corps-III (Camp)
General Elective Course
Third Semester**

No. of Credits: 5

Camp Marks: 250 Marks

**Camp will be organized and conducted by NCC Battalion (1 Haryana Naval NCC) and classes during camp for Theory & Practical will be conducted by NCC Battalion. Evaluation for the same will be done during the camp and Battalion will forward the Camp Marks to University just after the completion of camp.*



**NCC-401, National Cadet Corps-IV
General Elective Course
Fourth Semester**

No. of Credits: 2

L-T-P	Total
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2-0-0	2
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Sessional: 25 Marks

Theory: 75 Marks

Total: 100 Marks

Duration of Exam: 3 Hours

Pre- Requisite: NCC-I to NCC-II

Successive: NCC-V & NCC-VI

Theory (30 Hrs)

Unit 1. Personality Development (PD) (Contact Hrs.4).

Group Discussions – Social Skills & Time management.

Unit 2. Leadership Development (L) (Contact Hrs.3).

Case Studies – Case Studies – Ratan Tata, Rabindra Nath Tagore, Role of NCC cadets in 1965 war. (c)

Unit 3. Disaster Management (DM) (Contact Hrs. 10)

(i) Initiative Trg, Organising Skills. (ii) Dos and Don'ts. (iii) Natural Disasters. (iv) Man Made Disasters. (v) Fire Services and Fire Fighting.

Unit 4. Environmental Awareness (Contact Hrs. 3).

Adventure Environmental Awareness and Conservation.

Unit 5. General Awareness (Contact Hrs. 4).

General Awareness.

Unit 6. Naval Orientation (Contact Hrs. 6).

Armed forces & Naval capsule, EEZ, Maritime security & Indian Coast Guard

एकता और अनुशासन

NCC-402, National Cadet Corps-IV (Practical)
General Elective Course
Fourth Semester

No. of Credits: 1
L-T-P Total
0-0-2 2

Internal: 15 Marks
External: 35 Marks
Total: 50 Marks
Duration of Exam: 3 Hours

**Practical will be conducted by PI staff of NCC Battalion (1 Haryana Naval NCC) at University/Battalion. Evaluation for the same will be done and marks will be forwarded by Battalion to University after completion of particular semester.*

Practical (30 hrs.)

1. Drill

Arm Drill. Salami Shastra. Squad Drill with Arms.

2. Weapon Training

Short Range firing

3. Naval Communication

Introduction to radio telephony procedure

4. Seamanship

Instructions in Enterprise Class Boat including theory of sailing, Elementary Sailing rules

5. Social Service and Community Development

Cadets will participate in various activities throughout the semester e.g., Blood donation Camp, Swachhata Abhiyan, Constitution Day, Jan Jeevan Hariyali Abhiyan, Beti Bachao Beti Padhao etc as per the requirement and similar announced days- National and State level.

6. Ship & Boat Modelling

Practical Training on Static Models • Preparation of hull construction • Preparation of super structure • Chemical work and finishing of model • Stability and Operation of model

7. Health & Hygiene

Hygiene & Sanitation (Hygiene- Personal & Camp Hygiene). First Aid in common medical emergencies. Treatment & Care of Wounds.

एकता और अनुशासन

**NCC-501, National Cadet Corps-V
General Elective Course
Fifth Semester**

No. of Credits: 2

L-T-P Total

1-0-0 1

Sessional: 25 Marks

Theory: 75 Marks

Total: 100 Marks

Duration of Exam: 3 Hours

Pre- Requisite: NCC-I to NCC-IV

Successive: NCC-VI

Theory (15 Hrs)

Unit 1. Personality Development (PD) (Contact Hrs.6).

(i) Group Discussions –Team work. (ii) Public speaking.

Unit 2. Border & Coastal Areas (BCA) (Contact Hrs.2).

Security Setup and Border/Coastal management in the area.

Unit 3. Naval Orientation (NO) (Contact Hrs. 3).

Modes of Entry in Indian Navy, Merchant navy, Indian Coast Guard

Unit 4. Naval Communication (NC) (Contact Hrs. 2).

Introduction to Naval Communication, Semaphore

Unit 5. Navigation (N) (Contact Hrs. 2).

Navigation of ship, basic Requirements, chart work

एकता और अनुशासन

NCC-502, National Cadet Corps-V (Practical)
General Elective Course
Fifth Semester

No. of Credits: 1
L-T-P Total
0-0-2 2

Internal: 15 Marks
External: 35 Marks
Total: 50 Marks
Duration of Exam: 3 Hours

**Practical will be conducted by NCC Battalion (1 Haryana Naval NCC) at University/Battalion. Evaluation for the same will be done and marks will be forwarded by Battalion to University after completion of particular semester.*

Practical (30 hrs.)

1. Drill

Ceremonial Drill. Guard Mounting.

2. Weapon Training

Short Range firing

3. Naval Communication

Introduction to Naval Modern Communication, Semaphore, Phonetic Alphabets, Radio telephony procedure

4. Seamanship

Instructions in Sailing a Whaler - Types of sail

5. Social Service and Community Development

Cadets will participate in various activities throughout the semester e.g., Blood donation Camp, Swachhata Abhiyan, Constitution Day, Jan Jeevan Hariyali Abhiyan, Beti Bachao Beti Padhao etc. as per the requirement and similar announced days- National and State level.

6. Ship & Boat Modelling

Calculations of Sail area of a Model, Repairing of Ship Models, Handling and Operation of Remote Control Models

7. Obstacle Training

Obstacle training – Intro, Safety measures, Benefits. Obstacle Course- Straight balance, Clear Jump, Gate Vault, Zig- Zag Balance, High Wall etc.

8. Health & Hygiene

Yoga- Introduction, Definition, Purpose, Benefits. Asanas-Padamsana, Siddhasana, Gyan Mudra, Surya Namaskar, Shavasana, Vajrasana, Dhanurasana, Chakrasana, Sarvaangasana, Halasana etc.

**NCC-503, National Cadet Corps-V (Camp)
General Elective Course
Fifth Semester**

No. of Credits: 5

Camp Marks: 250 Marks

**Camp will be organized and conducted by NCC Battalion (1 Haryana Naval NCC) and classes during camp for Theory & Practical will be conducted by NCC Battalion. Evaluation for the same will be done during the camp and Battalion will forward the Camp Marks to University just after the completion of camp.*



**NCC-601, National Cadet Corps-VI
General Elective Course
Sixth Semester**

No. of Credits: 2
L-T-P Total
2-0-0 2

Sessional: 25 Marks
Theory: 75 Marks
Total: 100 Marks
Duration of Exam: 3 Hours

Pre- Requisite: NCC-I to NCC-V

Successive: Nil

Theory (30 Hrs)

Unit 1. Personality Development (PD) (Contact Hrs.3).

(i) Career Counselling. (ii) SSB Procedure. (iii) Interview Skills. (b)

Unit 2. Border & Coastal Areas (BCA) (Contact Hrs.2).

Security Challenges & Role of cadets in Border management. (c)

Unit 3. Naval Orientation (NO) (Contact Hrs. 3).

Naval Expeditions & campaigns

Unit 4. Seamanship (MH) (Contact Hrs. 15).

Introduction to Anchor Work, Rigging capsule, Boat-work, Pulling Instructions

Unit 5. Fire Fighting & Damage Control (NO) (Contact Hrs. 4).

Fire Fighting, Damage Control,

Unit 6. Ship Modelling (SM) (Contact Hrs. 3).

Ship Modelling capsule

एकता और अनुशासन

NCC-602, National Cadet Corps-VI (Practical)
General Elective Course
Sixth Semester

No. of Credits: 1
L-T-P Total
0-0-2 2

Internal: 15 Marks
External: 35 Marks
Total: 50 Marks
Duration of Exam: 3 Hours

**Practical will be conducted by PI staff of NCC Battalion (1 Haryana Naval NCC) at University/Battalion. Evaluation for the same will be done and marks will be forwarded by Battalion to University after completion of particular semester.*

Practical (30 hrs.)

1. Drill

Ceremonial Drill. Guard of Honor.

2. Weapon Training

Short Range firing.

3. Naval Communication

Introduction to Naval Modern Communication, Semaphore, Phonetic Alphabets, Radio telephony procedure

4. Seamanship

Anchor work, Introduction to rigging, DK Whaler Boat, Enterprise Class Boat

5. Social Service and Community Development

Cadets will participate in various activities throughout the semester e.g., Blood donation Camp, Swachhata Abhiyan, Constitution Day, Jan Jeevan Hariyali Abhiyan, Beti Bachao Beti Padhao etc as per the requirement and similar announced days- National and State level.

6. Ship & Boat Modelling

Practical Training: Construction, chemical work, stability & operation of models

7. Navigation

Uses of Maps and Charts and its purpose • Instruments required for chart work • Markings on Chart, Light houses, buoys • Introduction to Map reading and Navigation Aids to include GPS

8. Fire Fighting & Damage Control

As per battalion guidelines

एकता और अनुशासन