

## **NATIONAL CADET CORPS (N.C.C.) (Code No. 076)**

### **(2019-20)**

1. The training curriculum of the NCC is primarily focused towards character building, inculcating leadership qualities and skill enhancement through structured academic syllabi, practical training and opportunity of exposure/interaction beyond a cadet's immediate environment and thereby enabling them for a brighter and progressive future.
2. **The Aim of NCC is as listed below:**
  - (a) To develop character, comradeship, discipline, secular outlook, spirit of adventure and the ideals of selfless service amongst the youth of the country.
  - (b) To create a human resource of organized, trained and motivated youth, to provide leadership in all walks of life and always available for the service of the nation.
  - (c) To provide a suitable environment to motivate the youth to take up a career in the Armed Forces.
3. **Conduct of Training:** The NCC training curriculum is conducted as under:
  - (a) **Institutional Training.** Conducted in respective schools/ colleges by Associate NCC Officers (ANO), Permanent Instructional (PI) staff as part of the school curriculum.
  - (b) **Annual Training Camps (ATC).** To provide practical outdoor training, each NCC cadet attends 10 days camp in the second year of junior and senior division. These camps are conducted by respective NCC units.
  - (c) **Centrally Organized Camps (COC).** These camps are conducted at all India level, as National Integration Camps, attended by cadets from all states.
  - (d) **Adventure Training.** To inculcate a spirit of adventure and team work, NCC cadets undergo various adventure activities such as para jumps, para sailing, trekking, mountaineering and sailing expeditions.
  - (e) **Attachment Camps.** To give the cadets exposure to interact with Regular Army, Navy and Air Force units, attachment camps are conducted, where cadets are attached with these units. To motivate cadets to join the Armed Forces attachment of cadets with Indian Military Academy is also conducted.
  - (f) **Youth Exchange Programme (YEP).** Selected cadets also get an opportunity to visit various foreign countries as part of YEP. In one year approximately 100 cadets visit 10 -11 countries.
  - (g) **Social Service Activities.** The cadets also undertake various social service activities, by conduct of rallies to bring awareness and participate in various relief programmes/activities whenever called for.
4. **Trainers -** To conduct and implement the NCC training curriculum, there are three tiers of trainers.
  - (a) **First Tier:** It comprises of regular defence officers of the rank of Colour equivalent rank in Air Force and Navy, Whole Time Lady Officers (WTLO) and Civilian Gliding Instructors (CGI). They are responsible for coordination and supervision of training and conduct of camps.
  - (b) **Second Tier:** Professors and teachers nominated by respective schools and colleges and trained by NCC at its NCC Officers Training Academy and on completion of Pre-Commission Course, commissioned as Associated NCC Officer (ANO) form the most important link between the cadets

and NCC. They conduct most of the theory classes of non specialized subjects. Besides the Pre Commission training they attend refresher courses.

- (c) **Third Tier:** The Junior Commissioned Officers (JCO) and Non-Commissioned Officers (NCO) from the three services and Girl Cadet Instructors (GCI) and Ship Model Instructors (SMI) conduct the specialized training of the cadets.

**5. Eligibility for Enrolments as Cadet.**

- (a) Should be a citizen of India or a subject of Nepal.
- (b) Should be on the roll of the school or college which has an NCC Unit or part thereof.
- (c) The cadet should be within the age as mentioned below:-
  - (i) Junior Division - Not less than 13 years and below 18 years and 6 months.
  - (ii) Senior Division - Should be below the age of 26 years.

- 6. **NCC Syllabus.** The syllabus includes common subjects for all three wings and specialized subjects with respect to Army, Air Force and Navy. The common subjects comprise of approximately 70% and specialized service is 30% of the curriculum.
- 7. In addition to this syllabus, cadets attend one Annual Training Camp in the second year of junior and senior division to be eligible to appear in Part A and Part B certificate examination.
- 8. Cadets willing to pursue for Part C Certificate will have to attend third year senior division in the college.

**Evaluation System**

- 9. NCC presently conducts three certificate examinations, these evaluations are conducted as a written paper for theory and practical in the second year of junior division for Part 'A' and in the second and third year of senior division for Part 'B' and 'C'. The setting of papers and evaluations for Part 'A' and 'B' examinations are done by a board of officers at NCC Group Head Quarters headed by an officer of the rank of Brigadier and Part 'C' Examination at NCC state Directorate level headed by a officer of the rank of Major General.
- 10. Recommended evaluation pattern for NCC as an additional / elective subject in the schools affiliated with CBSE is as follows:
  - (a) Internal Examinations for class IX (JD) and class XI (SD) be conducted by respective ANO's and PI staff under the supervision of respective Commanding Officers of NCC unit. Marks included in the cadets' report card by concerned school.
  - (b) Part 'A' examination paper be set at state Directorate level and evaluated by Board of Officers at Group Headquarters. Copy of the result in respect of CBSE schools be forwarded to CBSE Board as performance evaluation of class X cadet.
  - (c) Part 'B' examination paper be set at HQ DG NCC level and evaluated by Board of Officers at Group Headquarters. Copy of the result in respect of CBSE schools be forwarded to CBSE Board as performance evaluation of class XII cadet. The result sheet in addition to the NCC cadet number will also have CBSE roll number. The marks obtained be included in the CBSE Board certificate and 'C' Certificate be issued by concerned State Directorate.

- (d) Part 'A' and 'B' exams to be conducted in the month of February, before the commencement of the main exams of the students. Respective exams to be conducted on a same date all over India. The schedule of examination to be approved by HQ, DG, NCC and forwarded to CBSE for inclusion in examination schedule.

## **11. Study Material**

### **(a) Textbooks**

- (i) Cadet Hand Book (Common Subjects), Published by DG NCC.
- (ii) Cadet Hand Book (Specialized Subjects), Published by DG NCC.
- (iii) ANO Précis

### **(b) Reference Books**

- (i) Grooming Tomorrow's Leaders, Published by DG, NCC.
- (ii) Youth in Action, Published by DG, NCC.
- (iii) The Cadet, Annual Journal of the NCC.
- (iv) Précis Issued by respective Service Headquarters on specialized subject available to PI Staff as reference material.

12. Detailed syllabus with respect to Junior Division for class 9 and 10 , Senior Division class 11 and 12 listed in Part One to Part Three of the document.

- (a) **Part One** - Junior Division Syllabus for class IX and X.
- (b) **Part Two** - Senior Division Syllabus for class XI and XII.
- (c) **Part Three** - Annual Training Camp Syllabus for class X (JD) and class XII (SD).

## **PART-II (SENIOR DIVISION) SYLLABUS FOR CLASS - XII**

### **Rationale**

The National Cadet Corps (NCC) came into existence on 16 July 1948 under an act of Parliament. Its motto “Unity and Discipline” has guided the NCC in its long standing effort to mould young volunteers into disciplined and responsible young citizens of India. Over the years, in response to the evolving environment, the NCC’s initial military orientation has been augmented by including aspects of social service and adventure training.

India is on a high growth trajectory. The future belongs to its youth which comprises 55% of the population. If we are to fully realize our potential we must develop training infrastructure that can instil vigour in the young and bolster their confidence whilst retaining a sense of purpose, honour and patriotic service. The NCC ideal “Empowerment of Youth”, reflects our commitment to work for a healthy, prosperous and strong India.

### **Objectives:**

- Train volunteer youth to become confident, committed and competent leaders in all walks of life.
- Enhance awareness levels of cadets to become empowered and responsible citizens of the country.
- Provide opportunities and encourage cadets to enrich their knowledge, develop communication skills and build character.
- Conduct social and community development programmes, to educate and make constructive contributions towards society.
- Undertake adventure activities to hone leadership qualities and risk taking abilities.
- Provide a platform to launch ‘Good Will Ambassadors’ to project the image of the country overseas.
- Conduct military training to develop awareness to develop awareness about Armed Forces, leadership skills and military values and thus, provide an environment to motivate cadets to join the Armed Forces

## CLASS-XII (SYLLABUS) (2019-20)

S. No.	Unit	Marks	Periods
<b>Part 1: Common Subjects</b>			
1	National Integration and Awareness	05	06
2	Drill	10	19
3	Weapon Training	07	10
4	Personality Development and Leadership	08	15
5	Disaster Management	03	03
6	Social Awareness and Community Development	04	05
7	Health and Hygiene	04	04
8	Adventure Training and Obstacle Training	06	08
9	Environment Awareness and Conservation	02	02
	<b>Total</b>	<b>49</b>	<b>72</b>
<b>Part 2 A: Special Subjects (Army)</b>			
1	Armed Forces	03	04
2	Map reading	05	08
3	Field Craft and Battle Craft	04	07
4	Introduction to information of Weapons and Equipment	03	04
5	Military History	03	05
6	Communication	03	05
	<b>Total</b>	<b>21</b>	<b>33</b>
<b>Part 2 B: Special Subjects (Navy)</b>			
1	Naval Orientation	03	06
2	Naval War Fare	03	04
3	Naval combination	03	04
4	Navigation	03	06
5	Sea manship	02	01
6	Boat Work	02	05
7	Fire Fighting, Flooding and Damage Control	02	02
8	Ship and Boat Modeling	02	03
9	Swimming	01	02
	<b>Total</b>	<b>21</b>	<b>33</b>

Part 2 C: Special Subjects (Air Force)			
1	General Service Knowledge	01	02
2	Air Campaigns	01	02
3	Aircraft Recognition	02	04
4	Principles of Flight	03	04
5	Airmanship	02	02
6	Navigation	03	03
7	Meteorology	01	01
8	Aero Engines	02	04
9	Air frames	01	02
10	Instruments	02	03
11	Aero modelling	03	06
	<b>Total</b>	<b>21</b>	<b>33</b>

## COMMON SUBJECTS (Detailed Syllabus)

Total Marks: 49

Total Periods: 72

### Unit-1: National Integration and Awareness

06 Periods

Contents	Learning Outcomes
<p><b>Aim:</b> To inculcate sense of patriotism, secular values and motivate cadets to contribute towards nation building through national unity and social cohesion.</p> <p><b>Scope:</b> The concepts of national interests, objectives and integration, unity in diversity and cultural heritage of India.</p> <ul style="list-style-type: none"> <li>Freedom Struggle and Nationalist Movement in India</li> <li>National Interests, Objectives, Threats and Opportunities</li> <li>Problems/Challenges of National Integration</li> <li>Unity in Diversity</li> </ul>	<p>After going through this unit, the student/ learner would be able to:</p> <ul style="list-style-type: none"> <li>understand the importance of the socio-cultural fabric of the country and the spirit of unity in diversity.</li> <li>understanding on the unit to comprehend the current scenario in the country and appreciate the need for revival of the spirit of oneness and brotherhood</li> <li>appreciate the spirit of oneness and understand what it takes to build a sovereign nation</li> <li>understanding on the topic to appreciate different freedom movements undertaken and the specific objective of each.</li> </ul>

### Unit-2: Drill

19 Periods

Contents	Learning Outcomes
<p><b>Aim:</b> To inculcate a sense of discipline, improve bearing, smartness, turnout and to develop the quality of immediate and implicit obedience of orders.</p> <p><b>Scope:</b> All important basic aspects of drill including ceremonial drill, drill with arms and words of command.</p> <p><b>Drill without Arms</b></p> <p>Side pace, pace forward and to the rear</p> <ul style="list-style-type: none"> <li>Turning on the march and wheeling</li> <li>Saluting on the march</li> <li>Marking time, forward march and halt in quick time</li> <li>Changing step</li> <li>Formation of squad and squad drill</li> </ul> <p><b>Drill with Arms</b></p> <ul style="list-style-type: none"> <li>Getting on parade with rifle and dressing at the order</li> <li>Dismissing and falling out</li> <li>Gun salute, Salami Shashtra</li> <li>Squad drill</li> <li>Short/long trail from the order and vice-versa</li> <li>Examine arms</li> </ul> <p><b>Ceremonial Drill</b></p> <ul style="list-style-type: none"> <li>Guard Mounting</li> </ul>	<p>After going through this unit, the student/ learner would be able to:</p> <ul style="list-style-type: none"> <li>understand the importance of discipline and focus as an indispensable quality to be developed in a cadet.</li> <li>experience the pride and love for the motherland and above all develop a spirit of patriotism</li> <li>understand the responsibility of a cadet while holding the rifle and position of the arms while drills are performed in different categories</li> <li>develop the grace and confidence to hold the rifle in the correct position while performing a drill</li> <li>understand how to respond on a word command and follow the instructions in synchronization with the squad.</li> <li>develop team spirit and togetherness, i.e. to work at a voice command, with the entire unit, in unison</li> </ul>

<ul style="list-style-type: none"> <li>• Guard of Honour</li> <li>• Platoon/Company drill</li> </ul>	
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### Unit-3: Weapon Training

10 Periods

Contents	Learning Outcomes
<p><b>Aim:</b> To give elementary knowledge about rifles</p> <p><b>Scope:</b> Basic Knowledge about rifle and firing</p> <ul style="list-style-type: none"> <li>• The lying position, holding and aiming</li> <li>• Trigger operation and firing a shot</li> <li>• Range precautions and safety precautions</li> <li>• Theory of group and snap shooting</li> <li>• Short range firing, aiming and alteration of sight</li> </ul>	<p>After going through this unit, the student/ learner would be able to:</p> <ul style="list-style-type: none"> <li>• understand the different positions in which the rifle can be operated; how firing is done; how the trigger is operated; how to handle the recoil.</li> <li>• become alert and careful as handling weapons will in still in them a sense of responsibility for their own and others safety.</li> </ul>

### Unit-4: Personality Development and Leadership

15 Periods

Contents	Learning Outcomes
<p><b>Aim:</b> To develop an all-round dynamic personality with adequate leadership traits to deal / contribute effectively in all walks of life.</p> <p><b>Scope:</b> Basic subjects of leadership with emphasis on self awareness, life/soft skills, time management and character building.</p> <ul style="list-style-type: none"> <li>• Self awareness - know yourself/insight</li> <li>• Inter personal relationship and communication</li> <li>• Communication skills: group discussions/ lectures</li> <li>• Time management</li> <li>• Effects of leadership with historical examples</li> <li>• Interview skills</li> <li>• Conflict motives - resolution</li> <li>• Sociability: social skills</li> <li>• Values/code of ethics</li> </ul>	<p>After going through this unit, the student/ learner would be able to:</p> <ul style="list-style-type: none"> <li>• understand the skills</li> <li>• apply the values to their practical life</li> <li>• Becoming responsible and confident in their abilities</li> <li>• the values to their practical life; time management, communication skills; Interview skills</li> </ul>

### Unit-5: Disaster Management

03 Periods

Contents	Learning Outcomes
<p><b>Aim:</b> To train cadets to assist civil administration in performance of selective duties during disasters.</p> <p><b>Scope:</b> Basic information about civil defence organization and its duties, maintenance of essential services and providing assistance to civil administration in various types of emergencies during national disasters.</p> <ul style="list-style-type: none"> <li>• Fire services and fire fighting</li> <li>• Assistance during natural/ other calamities: Flood/cyclone earthquake/accident, etc.</li> </ul>	<p>After going through this unit, the student/ learner would be able to:</p> <ul style="list-style-type: none"> <li>• understand the technique for fire fighting and the elementary precautions to combat and tragedy.</li> <li>• apply the training in practical situations.</li> </ul>



**Unit-6: Social Awareness and Community Development****05 Periods**

Contents	Learning Outcomes
<p><b>Aim:</b> To teach cadets the values and skills involved in providing voluntary Social Service.</p> <p><b>Scope:</b> Understanding of social service and its needs, knowledge about the weaker sections of our society and their requirements, about NGOs and contribution of youth towards social welfare.</p> <ul style="list-style-type: none"><li>• NGOs - Role and contribution</li><li>• Drug abuse and trafficking</li><li>• Corruption</li><li>• Social evils viz. dowry/female foeticide/child abuse and trafficking, etc.</li><li>• Traffic control organisation and anti-drunken driving</li></ul>	<p>After going through this unit, the student/ learner would be able to:</p> <ul style="list-style-type: none"><li>• understand social services and its need in the development of the society.</li><li>• develop a strong value system and become responsible citizens.</li><li>• understand about the role of NGO's in providing social service towards the development of society.</li><li>• appreciate the role of NGO and their selfless service to society</li><li>• understand the causes and learn how to overcome these problems</li><li>• develop a strong value system and become responsible citizens.</li></ul>

**Unit-7: Health and Hygiene****04 Periods**

Contents	Learning Outcomes
<p><b>Aim:</b> To instil respect and responsibility towards personal health and hygiene.</p> <p><b>Scope:</b> Basic information of the human body, maintenance of health, hygiene, sanitation, disease and an elementary knowledge of first aid and nursing.</p> <ul style="list-style-type: none"><li>• Hygiene and sanitation (personal and food hygiene)</li><li>• Basics of home nursing and first aid in common medical emergencies</li><li>• Wounds and fractures</li></ul>	<p>After going through this unit, the student/ learner would be able to:</p> <ul style="list-style-type: none"><li>• understand the basics of personal hygiene.</li><li>• understand and practice the sanitation and hygiene.</li><li>• understand the basics of first aid and how to provide the same in any such situation.</li><li>• apply the training in practical situations</li></ul>

**Unit-8: Adventure Training and Obstacle Training****08 Periods**

Contents	Learning Outcomes
<p><b>Aim:</b> To inculcate a sense of adventure and develop confidence, courage and determination</p> <p><b>Scope:</b> To expose cadets to various adventure activities</p> <ul style="list-style-type: none"><li>• Para sailing</li><li>• Rock climbing</li></ul>	<p>After going through this unit, the student/ learner would be able to:</p> <ul style="list-style-type: none"><li>• develop courage, self-confidence, determination and control.</li><li>• imbibe a sense of adventure</li><li>• understand how to win in such a situation.</li><li>• able to perform the task during obstacle training.</li></ul>

**Unit-9: Environment Awareness and Conservation****02 Periods**

Contents	Learning Outcomes
<p><b>Aim:</b> To sensitise the cadets on natural resource conservation and protection of environment</p> <p><b>Scope:</b> Basic understanding of environment in general and waste management in particular, energy conservation, pollution control and wildlife conservation in particular.</p> <ul style="list-style-type: none"><li>• Waste management</li><li>• Pollution control: Water, air, noise and soil</li></ul>	<p>After going through this unit, the student/ learner would be able to:</p> <ul style="list-style-type: none"><li>• Understand the importance of waste management and water conservation</li><li>• apply the skills and techniques for waste management and rain water harvesting</li><li>• understand the causes for pollution and his role to prevent it as a responsible citizen</li><li>• appreciate and apply the methods for keeping the pollution at bay.</li></ul>

**SPECIALISED SUBJECTS (ARMY)****Total Marks: 21****Total Periods: 33****Unit-1: Armed Forces****04 Periods**

**Aim:** To acquaint cadets with the Armed Forces

**Scope:** Introductory and general information about the Armed Forces

- Task and role of fighting arms
- Modes of entry into army
- Honours and awards

**Unit-2: Map Reading****08 Periods**

**Aim:** To teach cadets elementary map reading

**Scope:** Basic understanding of map sheets and map reading instruments and development of capability to use them to carry out simple map reading

- Relief, contours and gradients
- Cardinal points and types of North
- Types of bearings and use of service protractor
- Setting a map, finding North and own position
- Map to ground and ground to map

**Unit-3: Field Craft and Battle Craft****07 Periods**

**Aim:** To teach cadets elementary field craft and battle craft

**Scope:** Basic field craft and battle craft Judging distance observation, camouflage and concealment

- Field signals
- Types of knots and lashings

**Unit-4: Introduction to Infantry Weapons and Equipment****04 Periods**

**Aim:** To introduce cadets to infantry weapons

**Scope:** Introduction to characteristics and capabilities of infantry weapons

- Characteristics of 5.56 INSAS rifle, ammunition, fire power, stripping, assembling and cleaning
- Organisation of infantry battalion

## **Unit-5: Military History**

**05 Periods**

**Aim:** To provide knowledge of renowned Military Generals, PVCs and Indo-Pak Wars

**Scope:** Introduction to biographies, famous Indian battles and gallantry awards

- Indian Army War Heroes
- Study of Indo Pak wars of 1965, 1971 and Kargil
- War movies

## **Unit-6: Communication**

**05 Periods**

**Aim:** To introduce cadets to latest trends in the field of communications

**Scope:** Types of communications and future trends

- Characteristics of walkie - talkie
- Basic RT procedure

## **SPECIALISED SUBJECTS (NAVY)**

**Marks: 21**

**Periods: 33**

### **Unit-1: Naval Orientation and Service Subjects**

**06 Periods**

**Aim:** To impart basic knowledge about Navy

**Scope:** Basic knowledge, history, current organisation and role of different branches.

- Organisation of Ships and onboard organization
- Naval customs and traditions
- Modes of entry into the Indian Navy
- Branches of Navy and their functions
- Naval campaigns

### **Unit-2: Naval Warfare and its Components**

**04 Periods**

**Aim:** To impart basic knowledge about Naval Warfare

**Scope:** Overview of fleet operations to include aviation, submarine operations and missiles.

- Introduction to anti-submarine warfare
- Elementary knowledge of gunnery and missiles

### **Unit-3: Naval Communication**

**04 Periods**

**Aim:** To impart basic knowledge about Naval communication

**Scope:** To impart basic knowledge about naval communication organization, semaphore and wearing of flags.

- Introduction to Semaphore
- Phonetic Alphabets

- Radio Telephony Procedure

#### **Unit-4: Navigation**

**06 Periods**

**Aim:** To impart basic knowledge about navigation

**Scope:** Basic navigation tactics and methods and equipment used for navigation

- Navigation of ships - basic requirements
- Types of compass - gyro and magnetic, types of North
- Simple chart work
- Brief characteristics of its tides and its effects on ships
- Introduction to Astronomy

#### **Unit-5: Seamanship**

**01 Period**

**Aim:** To impart basic knowledge about navigation

**Scope:** Basic navigation tactics and methods

- Types of anchor, purpose and holding ground.

#### **Unit-6: Boat Work**

**5 Periods**

**Aim:** To impart basic knowledge about boats and its parts and steering of boats.

**Scope:** Introduction to boats and its parts including steering of boats and boat pulling

- Demonstrate rigging of a whaler and enterprise boat and parts of a sail
- Instructions in enterprise class boat including elementary sailing rules
- Types of power boats used in the navy

#### **Unit-7: Fire Fighting, flooding and damage control**

**02 Periods**

**Aim:** Introduction to fire fighting, flooding and damage control

**Scope:** Impart basic knowledge about fire fighting, flooding and damage control of a ship

- Causes of damage, flooding and damage control

#### **Unit-8: Ship and boat modeling**

**03 Periods**

**Aim:** To impart basic knowledge about ship modeling to cadets.

**Scope:** To impart basic knowledge about ship construction and boat modeling.

- Types of models
- Ship model competition
- Care and handling of power tools

#### **Unit-9: Swimming**

**02 Periods**

**Aim:** Each cadet must be able to swim and float.

**Scope:** To achieve proficiency in swimming to minimum standards

- Floating for 3 minutes and freestyle swimming for 50 meters

## SPECIALISED SUBJECTS (AIR FORCE)

Total Marks: 21

Total Periods: 33

### Unit-1: General Service Knowledge

02 Periods

**Aim:** To impart basic knowledge of IAF

**Scope:** History and organisation of IAF

- Organisation of Air Force
- Branches of Air Force

### Unit-2: Air Campaigns

02 Periods

**Aim:** To introduce Air Campaigns of Air Force

**Scope:** An overview of important campaigns

- Indo Pak War 1971
- OP Safed Sagar

### Unit-3: Aircraft Recognition

**Aim:** To introduce various aircrafts of the Air Force

**Scope:** Types, roles, variants of aircraft of the IAF

04 Periods

- Fighters
- Transports
- Helicopters
- Foreign Aircraft

### Unit-4: Principles of Flight

**Aim:** To introduce principles of flight

**Scope:** To impart knowledge about basic principles on which aviation is based

04 Periods

- Bernauli's theorem and Venturi Effect
- Aerofoil
- Forces on an aircraft
- Lift and drag

### Unit-5: Airmanship

**Aim:** To introduce the concept of airmanship

**Scope:** Airfield layout, Rules of the Air, ATC Procedures and basics of aviation medicine

02 Periods

- ATC/RT Procedure
- Aviation Medicine

### Unit-6: Navigation

**Aim:** To give basic knowledge of Air navigation

**Scope:** Use of maps and fundamentals of map reading from the air

03 Periods

- Requirement of navigation
- Glossary of terms

### **Unit-7: Meteorology**

**Aim:** To emphasise the need for knowledge of meteorology in aviation.

**Scope:** Importance, various phenomena of weather and its effects on aviation

**01 Periods**

- Importance of met in aviation

### **Unit-8: Aero engines**

**Aim:** To impart basic knowledge of aero engines.

**04 Periods**

**Scope:** Types of aero engines and their types

- Types of Engines
- Piston Engines
- Jet Engines
- Turboprop Engines

### **Unit-9: Airframes**

**Aim:** To introduce basic structure of an aircraft

**Scope:** Introduction to various aircraft controls and landing gear.

**02 Periods**

- Fuselage
- Main and Tail Plane

### **Unit-10: Instruments**

**Aim:** To provide knowledge of aircraft instruments

**Scope:** Introduction to Radars

**03 Periods**

### **Unit-11: Aero-modelling**

**Aim:** To provide knowledge about aero modelling

**Scope:** Materials used in different types of models

**06 Periods**

- Building /Flying of aero-models

## PART-III

### ANNUAL TRAINING CAMP JUNIOR AND SENIOR DIVISION

#### Rationale

- The Annual Training Camp is an exciting and essential element of NCC. Activities at the camp will help students develop qualities like social service, team spirit, challenge, leadership, discipline, self confidence, widen horizon, develop ambition to do creative work, enhance personal and social development, learn how to overcome adversity, civil defence and self defence, and other new and exciting experiences.
- Camp will make the students become more aware that they are part of a greater ecosystem and are not as bound by social customs and norms. In essence students will be true to themselves and more able to see others as people regardless of class, colour and creed.
- Camp activities will lead students to self-reliance, self-confidence, national spirit and leadership, and will enhance the NCC aims of developing character, comradeship, discipline, secular outlook, spirit of adventure and the ideals of selfless service amongst the youth of the country.
- Camp will let students live in the camp with a social environment and help teachers observe and understand their students' development in terms of personal aspirations, psychological behaviours and social skills. It will also allow students to appreciate their environment and natural surroundings and provide opportunities for students to be independent and exercise self-discipline.

Annual Training Camp is the culmination of NCC training instils and stimulate youths urge for excellence and inculcate spirit of adventure and outdoor activities.

#### Objectives

- Attendance of ATC is a mandatory requirement before the cadet is eligible for A and B Certificates in case JD/JW and SD/SW respectively.
- ATC is conducted for duration of 10 days in the second year of JD/JW and SD/SW to provide outdoor practical training.
- General activities covered during the ATC are as under :-  
Physical fitness to include PT, Yoga, Games, Obstacle training.
  - Drill
  - Weapon training and firing.
  - Map Reading
  - Field Craft and Battle Craft.
  - Personality Development.
  - National Integration and Social Awareness.
  - Cultural Activities.
  - Lectures on Civil Affairs, Social Awareness and Community Development, Health and Hygiene and
  - Environment Issues.
- Cadets will be tested for practical training during the camp as under:-
  - Drill
  - Weapon Training
  - Firing

- Obstacle Training
- Map Reading
- Field Craft and Battle Craft
- ATC will be conducted under the aegis of the unit affiliated to the School/College.
- ATC will be conducted during the period from August to February by the ANO and Cadets keeping in view the availability of cadets as per their academic curricular.

**CLASS XII: SYLLABUS**  
**ANNUAL TRAINING CAMP: SENIOR DIVISION (NAVY)**

S. No.	UNIT	MARKS	PERIODS
1.	Physical Training , Games and Obstacle Training	09	16
2.	Drill		18
3.	Weapon Training	12	12
4.	Naval Orientation		1
5.	Naval Communication		4
6.	Navigation		2
7.	Seamanship	09	7
8.	Ship and Boat Modeling		4
9.	Swimming Military		4
10.	History Personality		8
11.	Development		10
12.	National Integration, Civil Affairs, Environment, Social Awareness and Community Development, Health and Hygiene		16
	<b>Total</b>	<b>30</b>	<b>102</b>
	On the basis of above syllabus, a test carrying 30 Marks will be conducted	Marks	Periods
	TEST	30	10
	<b>TOTAL</b>	<b>30</b>	<b>112</b>

**ANNUAL TRAINING CAMP**  
**(Detailed Syllabus)**

**Periods 112**  
**Total Marks 30**

**Unit-1: Physical Training and Games**

**16 Periods**

- Physical Training
- Yoga
- Games



**Unit-2: Drill****18 Periods**

- Words of Command
- Drill with Arms
- Individual Drill
- Squad Drill
- Ceremonial Drill

**Unit-3: Weapon Training****12 Periods**

- Characteristics of .22 Rifle,
- Stripping, Assembling
- Loading/Unloading and Bolt Manipulation
- Lying Position and Hold
- Aiming, Range and Targets
- Trigger Control and Firing a Shot
- Range Procedure and Safety Precautions
- Characteristics of 7.62mm SLR And 5.56mm INSAS
- Characteristics of 7.62mm SLR, Ammunition
- Firepower, Stripping Assembling and Cleaning
- Characteristics of 5.56mm INSAS Rifle, Ammunition
- Firepower Stripping Assembling and Cleaning
- Firing .22 Rifle

**Unit-4: Naval Orientation****01 Period**

- Naval Campaign (Battle of Atlantic)
- Pearl Harbour, Falkland War/Fleet
- Review/Pfr/lfr)

**Unit-5: Naval Communication****04 Periods**

- Semaphore, Introduction of Position of Letters and Prosigns
- Reading of Messages
- Transmission of Messages
- Radio Telephony Procedure

**Unit-6: Navigation****02 Periods**

- Navigation of Ship - Basic
- Requirements- (Charts and Compass)
- Map Reading
- Knot and Nautical Mile, Latand Long, Types of Maps and Contours, Simple Chart Work
- Plotting Ship Track, Types of Chartsand Information on Charts

**Unit-7: Seamanship****07 Periods**

- Parts of Anchor and Cable, their Identification
- Types of Anchor, Purpose and Holding Ground
- Practical Bends and Hitches: Introduction to Shackles, Hooks, Blocks and Derricks
- Coiling Down and Splicing of Rope
- Parts of a Boat and Parts of an Oar
- Instructions on Boat Pulling - Pulling Orders
- Steering of Boats Under Oars, Practical
- Demonstrate Rigging a Whaler and Enterprise Boat - Parts of Sail and Sailing Terms
- Instructions in Enterprise Class Boat including
- Theory of Sailing, Elementary Sailing Rules
- Instructions in Sailing Whaler - Types of Sail

**Unit-8: Ship and Boat Modelling****04 Periods**

- Maintenance and Care of Tools
- Cleaning and Oiling of Tools, Types of Models, Care and Handling of Power
- Tools Used, Maintenance and Purpose of Tools

**Unit-9: Swimming****04 Period**

- Floating for 3 minutes and free style swimming for 50 meters

**Unit-10: Military History****08 Periods**

- Biographies of Military Leaders
- Famous Battles

**Unit-11: Personality Development****10 Periods**

- Motivation
- Discipline and Duty of a Good Citizen
- Leadership Traits
- Preparation for Interview

**Unit-12: National Integration, Civil Affairs Environment, Social Awareness and Community Development, Health and Hygiene****16 Periods**

- Unity in Diversity
- National Integration and its Importance
- Contribution of Youth in National Building Civil Affairs
- Disaster Management
- Fire Fighting
- Vigilance Awareness

- Civil Defence Organisation and its Duties
- Types of Emergencies / Natural Disaster
- Role of NCC in aid to Civic

Administration Environment

- Conservation of Environment and Ecology
- Pollution and its Control
- Wildlife Conservation

Social Awareness and Community Development

- Drug Abuse and Trafficking, HIV and AIDS
- Cancer Awareness, Adult Education
- Traffic Control
- Evils - Female Feticide, Child Abuse, Dowry Health and Hygiene
- First Aid In Common Medical Emergencies
- Hygiene and Sanitation
- Preventable Diseases
- Dressing of Wounds, Physical and Mental Health

**Unit-13: Test**

**10 Periods**

**CLASS-XII**  
**ANNUAL TRAINING CAMP: SENIOR DIVISION (AIR FORCE)**  
**(Block Syllabus)**

S. No.	UNIT	MARKS	PERIODS
1	Physical Training, Games	08	12
2	Drill		10
3	Weapon Training	22	10
4	Flying		28
5	Visit Air Force Station		06
6	Military History		12
7	Personality		18
8	Development		16
	National Integration, Civil Affairs, Enjoinment, Social Awareness Community Development, Health and Hygiene		
	<b>TOTAL</b>	<b>30</b>	<b>112</b>

## **ANNUAL TRAINING CAMP (Detailed Syllabus)**

**Total Marks 30**

**Periods 112**

### **Unit-1: Physical Training and Games**

**12 Periods**

- Physical Training
- Yoga
- Games

### **Unit-2: Drill**

**10 Periods**

- Words of Command
- Drill with Arms
- Individual Drill
- Squad Drill
- Ceremonial Drill

### **Unit-3: Weapon Training**

**10 Periods**

- Characteristics of .22 Rifle, Stripping, Assembling
- Loading/Unloading and Bolt Manipulation
- Lying Position And Hold
- Aiming, Range and Targets
- Trigger Control and Firing a Shot
- Range Procedure and Safety Precautions
- Firing .22 Rifle
- Firing 12 bore Skeet

### **Unit-4: Flying**

**28 Periods**

- Introduction to Flying
- Air Experience
- Checks and Procedures
- Emergency Handling
- Circuit and Landing
- Forced Landing Techniques

### **Unit-5: Visit to Airforce Station**

**06 Periods**

- Exposure to all Types of Aircrafts
- Visit Flying Squadron
- Visit Air Traffic Control Tower
- Visit Meteorology Section
- Visit Airfield Area

**Unit-6: Military History****12 Periods**

- Biographies of Military Leaders
- Indian Battles
- Indian Army War Heroes
- War Movie

**Unit-7: Personality Development****18 Periods**

- Factors Influencing/Shaping Personality-Physical, Social, Psychological and Philosophical
- Self Awareness and Critical and Creative Thinking
- Communication Skills-Group Discussion
- Importance of Team Work
- Character Building
- Leadership Traits
- Interview Skills
- Time Management

**Unit-8: National Integration and Social Awareness****16 Periods**

- Unity In Diversity
- National Integration and its Importance
- Contribution of Youth In National Building Civil Affairs
- Disaster Management
- Fire Services and Fire Fighting
- Civil Defense Organisation and its Duties
- Setting Up of Relief Camp During Disaster Management
- Collection and Distribution of Aid Material
- Assistance During Natural Calamities
- Traffic Control During Disaster Under Police Supervision Environment Awareness
- Conservation of Environment and Ecology
- Pollution and its Control
- HIV and Aids-Causes and Prevention
- Adult Education
- Traffic Control Organisation
- Rural Development Programmes
- Civic Responsibilities
- Corruption

- Social Evils
  - Child Abuse and Trafficking
  - Female Feticide

#### Health and Hygiene

- First Aid in Common Medical Emergencies
- Hygiene and Sanitation
- Preventable Diseases

## ELIGIBILITY CONDITIONS FOR CERTIFICATE EXAMINATIONS

### 'A' CERTIFICATE

1. All NCC cadets in Junior Division on successful completion of their two years training and having passed Part 'A' examination conducted by respective NCC units are issued NCC 'A' Certificate. The certificate examination comprises a written and practical test. Cadets eligible to appear in the certificate examination must fulfill the under mentioned conditions:
  - (a) The cadet should be on the roll of NCC unit/ sub unit.
  - (b) The cadet should have attended a minimum of 75% of total training periods laid down in the syllabus for the first and second years of Junior Division/ Wing, NCC (All Wings).
  - (c) Attended one Annual Training Camp of JD/JW.
  - (d) Break in the NCC training of the cadet prior to his appearing in the examination should not exceed more than 12 months at one time, to count his previous training period. In case the break exceeds 12 months and the cadet has been on the unit rolls for a minimum of two years before his discharge and had attended 75% of the total period during his NCC service he will need another 45 periods in the year he is appearing for the examination.

### 'B' CERTIFICATE

2. All NCC cadets in Senior Division on successful completion of their two years training and having passed Part 'B' examination conducted by respect NCC units are issued NCC 'B' Certificate. The certificate examination comprises a written and practical test. Cadets eligible to appear in the certificate examination must fulfill the under mentioned conditions:
  - (a) The cadet must have attended a minimum of 75% of total training period laid down in the syllabus for the first and second years for Senior Division/ Wing NCC (All Wings).
  - (b) Break in the NCC service of the cadet SD/SW prior to appearing in the exam should not exceed more than 18 months at one time, after his discharge to count his service for certificate 'B' examination. (c) Must have attended one Annual Training Camp of Senior Division.
  - (d) Cadets possessing 'A' certificate are awarded 10 bonus marks.
3. Sample of the certificate issued to cadets by the NCC is enclosed as appendix.

### NOTICE

1. NCC as an Elective Subject will be available to those schools where NCC is already existing. It will be available as per existing strength.
2. Schools desirous of applying for allotment of NCC must apply to the nearest NCC Unit and not to CBSE. NCC will be allotted as per seniority as per provisions of NCC Act and Rules, 1948.

## PROCEDURE FOR ALLOTMENT OF NCC TO SCHOOL/ COLLEGE

1. Any school or college which is desirous of having an NCC unit/ sub unit in their institution has to apply for the same through the nearest NCC unit covering the given geographical area. The application format is as per appendix 'A' att.
2. The terms and conditions for raising a senior division coy/ junior division troop are listed at paragraph 9 to 12 of the application form.
3. Since the number of vacancies authorized to each NCC unit are fixed, the allotment will depend on availability of vacancies. Otherwise the institution will be placed on waiting list of the given NCC unit and allotted as per waiting list seniority.
4. The approval for allotment of NCC to institutions is approved at state NCC Directorate for in tern allotments. Out of turn allotment is approved only by DG NCC, only in exceptional cases.

### APPLICATION FORM FOR RAISING OF SENIOR DIVISION NCC SUB UNIT/ JUNIOR DIVISION TROOP (ARMY WING)

1. (a) Name of Institution :  
(b) Funded by :
2. Department of Education under : Central Govt/State Govt aided/Self financing  
Whom functioning.
3. Number of NCC unit/ Coys Troop (if any) :  
Already functioning in the institution
4. Name of NCC unit to which affiliated :  
(if applicable)
5. Nearest NCC unit/ sub unit (if known) :
6. Number of NCC units/Coys/Troops :  
Desired to be raised/ allocated (and its  
Cadet strength)
7. Total number of student in the college/ :  
School

For Senior Division	Boys	Girls	Total
11 <sup>th</sup> /I <sup>st</sup> Year			
12 <sup>th</sup> / II <sup>nd</sup> Year			
III <sup>rd</sup> Year			
<b>Total</b>			
For Junior Division			
8 <sup>th</sup> Class			
9 <sup>th</sup> Class			
10 <sup>th</sup> Class			
<b>Total</b>			

8. Names(s) of Lecturer(s)/Teachers(s) :  
Recommended for pre-commissioned  
Training in case NCC unit/Coy/Troop is  
raised/ allocated. State educational  
Qualifications and Appointment.

**Conditions for raising a Senior Division NCC Unit /  
Coy or Junior Division Troop NCC:**

9. A Unit/Coy/Troop or part thereof of the Senior/Junior Division is raised in a College/School subject to the following conditions:-
- (a) The college/school shall provide from among the members of its staff NCC officers for the unit/ coy/ troops at the scales prescribed in Peace Establishment.
  - (b) The college/school shall give an undertaking that it can enroll and maintain up to strength of unit/ coy/ troop or part thereof, which may be allotted to it.
  - (c) The college/school shall provide for the unit/ coy/ troop or part thereof, which may be allotted to it, a storeroom for the storage of clothing and equipment and an office room for the unit/ coy/ troop office.
  - (d) The college/school shall provide a suitable miniature rifle range or arrange to obtain the use of such a miniature rifle range.
  - (e) The college/school shall be in a position to supplement from its own funds the financial grants made by the State Government for the unit/ coy / troop or part thereof which may be allotted to it.
  - (f) The college/ school shall be in a position to provide the services of a lascar as per authorization of Peace Establishment for smooth conduct of NCC activities (For Self financing institutions).
10. Provided that the State Government may, in any case, relax wholly or in part the provision of clause (e) or if it is satisfied that the requisite facilities are provided by schools located in the same place the provisions of clause (c) and (d).
11. Declaration by Head of Institution
- (a) I hereby declare that the raising of a troop in my College/ School will be subject to the conditions stipulated in Rule 3 (in respect of Senior Division) and in Rule 4 (in respect of Junior Division) of the NCC Act and Rules (Boys) and Rule 3 of NCC Act and Rules (Girls Division) and I will not request for withdrawal of NCC before ten years.
  - (b) I further declare that the College/ School will ensure the following:-
    - (i) Enrolment of cadets to the maximum required strength and to maintain the same consistently during the training session.
    - (ii) Regular attendance of cadets on parade up to the required percentage laydown.
    - (iii) Regular attendance in camps of NCC Cadets and NCC Officer(s) of the College/ School.
    - (iv) Maintenance of proper discipline of NCC Officers and NCC Cadets.
    - (v) Safeguards to ensure NCC cadets of any Institution return all NCC stores, equipment and clothing issued to them for training before they withdraw/ leave, the institution or give up NCC.



(vi) Accommodation as required will be provided for office storeroom and strongroom.

(vii) Arrangement for medical examination of cadets will be made.

12. In the events of any unsatisfactory performance as regards the points Referred to in Para 11 above the NCC unit/ coy/ troop will be liable to be disbanded or re-allotted/ transferred to another College/ School at the discretion and decision of the Deputy Director General of NCC.

Place: Signature of the Head of Institution

Date: (Name in Block Letters)

13. Recommendation of the OC Unit to which the proposed Unit/ Coy/ Troop is to be affiliated. Confirming that the financial commitments vide SNCCO 1/S/65 have been accepted by the Institution and Sponsor.

Place: Signature

Date: (Name in Block Letters)

14. Recommendation of the NCC Group Commander.

Place: Signature

Date: (Name in Block Letters)

15. Specific recommendation of the Deputy Director General of NCC.

Covering prospects of response to cadet to take training facilities radius of action/ distances, availability of official and domestic accommodation, administrative feasibility.

Place: Signature

Date: (Name in Block Letters)

16. Recommendations of State Government/ Sponsor.

The financial commitment as laid down in the Model Budget in respect of the State Government/ Sponsor's responsibility is accepted as amended from time to time.

Place: Signature

Date: (Competent State Government  
Official/ Concerned Ministry  
Official/ Sponsor)

**Note:** In the event of a Private Institution this commitment will be accepted by the Head of the Private Institution.