

Guidelines for Introduction of Bachelor of Vocation (B.Voc.) Programme in Universities and Colleges under the National Skills Qualifications Framework (NSQF)

1. Introduction

It has been a long felt necessity to align higher education with the emerging needs of the economy so as to ensure that the graduates of higher education system have adequate knowledge and skills for employment and entrepreneurship. The higher education system has to incorporate the requirements of various industries in its curriculum, in an innovative and flexible manner to produce holistic and well groomed graduates.

Govt. of India, in pursuance of the decision of Cabinet Committee on Skill Development in its meeting held on 19th December, 2013 issued a notification for National Skills Qualifications Framework (NSQF). Under the National Skills Development Corporation, many Sector Skill Councils representing respective industries have/are being established. One of the mandates of Sector Skill Councils is to develop Qualification Packs (QPs) / National Occupational Standards (NOSs) for various job roles in their respective sectors. It is important to embed the competencies required for specific job roles in the higher education system for creating employable graduates.

The University Grants Commission (UGC) had launched a scheme on 27 February, 2014 for skills development based higher education as part of college/university education, leading to Bachelor of Vocation (B.Voc.) degree with multiple entry and exit points. Considering the implementation modalities, the guidelines of the scheme have been revised in the year 2015. The B.Voc. programme is focused on universities and colleges providing undergraduate studies which would also incorporate specific job roles and their NOSs along with broad based general education. This would enable the graduates completing B.Voc to make a meaningful participation in accelerating India's economy by gaining appropriate employment, becoming entrepreneurs and creating appropriate knowledge.

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2. Objectives

- 2.1 To provide judicious mix of skills relating to a profession and appropriate content of general education.
- 2.2 To ensure that the students have adequate knowledge and skills, so that they are work ready at each exit point of the programme.
- 2.3 To provide flexibility to students by means of pre-defined entry and multiple exit points.
- 2.4 To integrate NSQF within the undergraduate level of higher education in order to enhance employability of the graduates and meet industry requirements. Such graduates apart from meeting the needs of local and national industry are also expected to be equipped to become part of the global workforce.
- 2.5 To provide vertical mobility to students coming out of (a) 10+2 with vocational subjects; and (b) Community Colleges.

3. Eligibility /Target

All universities and colleges included under Sections 2(f) and 12(B) of the UGC Act, 1956 will be considered under the scheme.

- 3.1. The existing universities and colleges recognized by the UGC under section 2(f) and 12(B) of UGC Act, 1956 and eligible to receive General Development Assistance will be supported by UGC for implementing the Scheme of B.Voc degree programme. The eligible universities and colleges may submit the proposal under the Scheme to the UGC in specified format as per Annexure – A of the guidelines.
- 3.2. Self financing institutions recognized under 2(f) and 12(B) of the UGC Act 1956, and not eligible to receive General Development Assistance from the UGC may also be considered for approval under the scheme. However, they will abide by the guidelines of UGC as amended from time to time, but will not be entitled for any financial assistance under the scheme.
- 3.3. The Government / Society / Trust or a Company may also set up an independent institution, to implement the scheme and may offer B.Voc course as per the extant guidelines. The financial assistance to such institutions will be governed as per the prevailing policy of the Commission.

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4. Criteria for Selection of the Institution

- 4.1 While selecting the institution under the scheme of B.Voc degree programme, preference will be given to such colleges / universities which have proximity to the industry partner(s), address local job requirements and/or youth aspirations of the region. The Universities / Autonomous Colleges may have added advantages for curriculum design, assessment and governance *etc.* and, therefore, will be accorded priority under the scheme.
- 4.2 Any institution will normally be given two courses under the scheme. However, after successful implementation of the scheme by the institution, the UGC may consider to approve additional courses to the institution.
- 4.3 The proposals will be invited in the prescribed proforma (Annexure A) from the interested institutions by issuing a Public Notice on the UGC website. The proposals will be submitted within specified time, enclosing therewith a DPR, No Objection Certificate from affiliating university in case of Colleges, proposed Action Plan and itemized budget estimates. The proposals will be placed before an Expert Committee for evaluation. If required, UGC may constitute a Screening Committee to shortlist the proposals. The UGC may also decide to arrange an interface of the institutions with the Expert committee. Based on the merit of the proposal/interface, the Expert committee will recommend institutions under the scheme.

5. Nature of Assistance:

An institution may be allowed to run two courses in the beginning. However, based on the effective implementation of the scheme by the institution, additional courses may be approved under the scheme. The financial allocation will be made by UGC within overall ceiling of Rs. 1.70 crores for a period of three years under different heads initially for two courses. However, a grant of Rs. 25 lakhs for one Assistant Professor will be paid for each additional course making a total of Rs. 2.2 crores for maximum four courses.

- 5.1. Start-up assistance: An one-time start-up assistance up to Rs. 75.00 lakh for setting up of laboratories/workshops facilities, procurement of teaching and learning materials including courseware, machineries/equipment and renovation of buildings. This shall not cover any new construction.

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- 5.2. Faculty: One Assistant Professor per course – up to Rs. 65.00 lakh for three years (purely on contractual basis) - to be reimbursed on actual basis within the total allocation. Institutions should recruit faculty only in the core trades being offered under the Scheme.
- 5.3. Adjunct/Visiting/Guest Faculty: Rs. 10.00 lakh for first year and Rs. 15.00 lakh for second and Rs. 20.00 lakh for third year.
- 5.4. There shall be a part time Nodal Officer for overall coordination of B.Voc courses, liasoning with the Industry, SSCs, and other stakeholders. The institution may not insist on the prescribed minimum workload for faculty who will be given the responsibility of a Nodal Officer. The payment of honorarium to Nodal officer and teaching faculty will be as per rates given in Table – 1 and this expenditure will be met out of the Operating Expenditure.

Table –1 : Honorarium to Principal, Nodal Officer and Teaching Faculty

Nodal Officer	Rs.8000/- per month
Existing Faculty	Rs.600/- per lecture
Visiting / guest / adjunct / faculty	Rs.1,000/- per lecture or as amended by UGC from time to time.

- 5.5. The Operating Expenditure: This will include the honorarium for hiring services, travel, field visits, equipments repair / organizing seminars/workshops/training programmes, web creation, contractual lab staff / secretarial assistance, meetings, consumables, honorarium to Nodal Officer and contingency. The allocation of the amounts under various heads mentioned above will be approved on yearly basis by the Advisory Committee. The operative yearly cost shall be of Rs. 10.00 lakhs per annum.
- 5.6. Fees obtained from the students should be treated as additional grant and may be spent with prior approval of UGC. This should be reflected in the Statement of Expenditure (SoE) and audited Utilization Certificate (UC) to be submitted to UGC on yearly basis.
- 5.7. A 10% re-appropriation of total approved grants will be allowed at institutional level after approval of Advisory Committee.

6. Governance and Coordination:

An Advisory Committee will be set-up for effective governance and coordination of the courses under the scheme. The Advisory Committee will include the representative(s) of the affiliating university, relevant industries, relevant Sector Skills Council(s), and Nodal Officer of B.Voc Scheme. The Vice Chancellor of the university or his Nominee or Principal of the college, as the case may be, will be the Chairman of the Advisory Committee and the Nodal Officer will be the Member-Secretary. The Committee will meet periodically to review the functioning of the courses, as and when required, but at least once in six months. The Advisory Committee will also ensure the timely submission information to UGC and uploading of data in Skill Development Monitoring System (SDMS). Nodal Officer will submit quarterly progress report to UGC and copy of the same may also be endorsed to Head, Standards & Q.A., National Skill Development Corporation, Block A, Clarion Collection, Shaheed Jeet Singh Marg, New Delhi - 110016.

7. Curricular Aspects and Levels of Awards

The institutions offering B.Voc degree courses will have to be in constant dialogue with the industry and respective Sector Skill Council(s) so that they remain updated on the requirements of the workforce for the local economy. There will be essentially credit-based modular programmes, wherein banking of credits for skill and general education components will be permitted so as to enable multiple exit and entry. This would enable the learner to seek employment after any level of Award and join back as and when feasible to upgrade her / his qualification / skill competency either to move higher in her / his job or in the higher educational system.

- 7.1. As the CBSE and many other school boards are initiating skill based vocational courses with certification at NSQF Level 4 for students completing 10+2, there may be three types of learners getting admission to first semester of B.Voc courses under NSQF:

Category – 1 : students who have already acquired NSQF certification Level 4 in a particular industry sector and opted for admission in the B.Voc degree courses under NSQF in same sector for which he / she was previously certified at school level.

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Category – 2 : students who have acquired NSQF certification Level 4 but may like to change their sector and may enter in B.Voc course in a different sector.

Category – 3 : students who have passed 10+2 examination with conventional schooling without any background of vocational training.

The institutions will develop curriculum and arrange for skill intensive training / teaching for the learners belonging to the category-2 and 3 as above during the first six months who will be assessed and certified for NSQF Level 4 of skill competency by concerned SSC at the end of first semester. However, learners belonging to category-1 will not require such certification as they were already having NSQF level 4 certificates in same industry sector / job role required for specified skill credits.

All the learners continuing for Diploma courses or further will be treated at par from second semester onwards. Students may exit after six months with a Certificate (NSQF Level 4) or may continue for diploma or advanced diploma or B.Voc degree level course(s). An academic progression for the students in vocational stream is illustrated below:

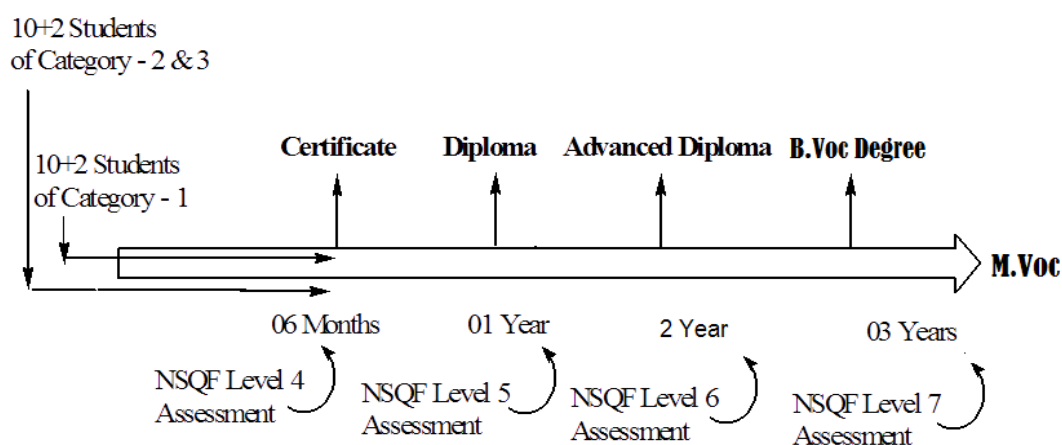


Fig. 1: Assessment of Skill Component under NSQF in Vocational Courses

As an illustration, awards could be given at each stage as per Table 2 below for cumulative credits awarded to the learners in skill based vocational courses.

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TABLE - 2

NSQF Level	Skill Component Credits	General Education Credits	Total Credits for Award	Normal Duration	Exit Points / Awards
4	18	12	30	One Sem.	Certificate
5	36	24	60	Two Sem.	Diploma
6	72	48	120	Four Sem.	Advanced Diploma
7	108	72	180	Six Sem.	B.Voc Degree

The NSQF Levels in above illustrations indicate that there should be at least one job role at the concerned NSQF Level in the curriculum to be assessed and certified for skill component. The normal training hours for skilling should be proportionate to the weightage for skill credits and an appropriate component of skill training may be imparted as on-site training at actual work place.

The candidates who have acquired vocational Certificate / Diploma or Advanced Diploma from UGC recognized Community Colleges / B.Voc institutions or DDU KAUSHAL Kendras in a specific sector with certified skills on a particular job role will be eligible for admission through lateral entry to next higher level on same sector.

- 7.2. The curriculum in each of the years of the programme would be a suitable mix of general education and skill development components. As is evident from Table 2 above, the General Education Component shall have 40 % of the total credits and balance 60% credits will be of Skill Component. The Curriculum details should be finalized before introduction of the courses.

Skill Development Components:

- (i) Skill component of the programmes/courses shall be employment oriented. The B.Voc institutions shall offer programmes/courses in domain areas which have significant demand in the job market. The institutions, in consultation with the industry partner(s) and

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based upon skills Gap analysis report published by the NSDC, industry associations, Sector Skills Councils, Government agencies *etc*, may decide specific Job Role(s) to be embedded in curriculum. The exit profiles of the learners at different levels *i.e.* Certificate / Diploma / Advanced Diploma should be clearly defined in output terms.

- (ii) The curriculum should necessarily be aligned to Qualification Packs (QPs) / National Occupational Standards (NOSs) of selected job role(s) within the industry sector(s). This would enable the students to meet the learning outcomes specified in the NOSs.
- (iii) The curricula and system of certification for the skill component should be as per the National Occupational Standards defined by respective Sector Skills Council(s).
- (iv) For skills component, the model curriculum developed by the concerned Sector Skill Councils wherever available may be adopted or adapted in consultation with the industry partners. Wherever the curriculum is not available, the same may be developed in consultation with the relevant Sector Skill Councils and industry partners. While doing so, they may work towards aligning the curriculum with the National Occupational Standards being developed by the respective/allied Sector Skill Councils. This would promote national and global mobility of the learners, as well as higher acceptability by the industry for employment purposes.
- (v) The overall design of the skill development component along with the job roles selected should be such that it leads to a comprehensive specialization in one or two domains.
- (vi) In case NOS is not available for a specific area / job role, the university/college should get the curriculum for this developed in consultation with industry experts.
- (vii) The curriculum should also focus on work-readiness in terms of skills in each of the three years.
- (viii) Adequate attention needs to be given in curriculum design to practical work, on the job training, development of student portfolios and project work.

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General Education Component:

- (i) The general education component should adhere to the normal university standards. It should emphasis and offer courses which provide holistic development.
 - (ii) The general education component of the curriculum will be decided by the Board of Studies of the concerned University / Autonomous College. This may also include the course(s) which are supportive to core trade in addition to soft skills, IT skills, and language proficiency and literature.
- 7.3. The practical / hands-on portion of the skills component of the curriculum shall be transacted in face to face mode. The skill component of these programmes will conform to the QPs/NOSs and the general education component will conform to the university norms.
- 7.4. The curriculum should be designed in a manner that at the end of year-1, year-2 and year-3, students are able to meet below mentioned level descriptors for level 5, 6 and 7 of NSQF, respectively:

Level	Process required	Professional knowledge	Professional skill	Core skill	Responsibility
Level 5	Job that requires well developed skill, with clear choice of procedures in familiar context	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools materials and information	Desired mathematical skill, understanding of social, political and some skill of collecting and organizing information, communication	Responsibility for own work and learning and some responsibility for other's works and learning
Level 6	Demands wide range of specialized technical skill, clarity of knowledge and practice in broad range of activity involving standard / non-standard practices	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Reasonably good in mathematical calculation, understanding of social, political and, reasonably good in data collecting organizing information, and logical communication	Responsibility for own work and learning and full responsibility for other's works and learning

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Level 7	Requires a command of wide ranging specialized theoretical and practical skill, involving variable routine and non-routine context	Wide ranging, factual and theoretical knowledge in broad contexts within a field of work or study	Wide range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Good logical and mathematical skill understanding of social political and natural environment good in collecting and organizing information, communication and presentation skill	Full responsibility for output of group and development
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Professional knowledge is what a learner should know and understand with reference to the subject; **Professional skills** are what a learner should be able to do and, **Core skills** refer to basic skills involving dexterity and use of methods, materials, tools and instruments used to perform the job including IT skills needed for that job. **Responsibility aspect** determines the (i) nature of working relationship, (ii) level of responsibility for self and others, (iii) managing change and (iv) accountability for actions.

- 7.5. The institutions may also provide for Recognition of Prior Learning (RPL) framework for job roles at NSQF Level 4 onwards by conducting assessment and certification through respective SSC(s) / Directorate General of Employment and Training (DGET).
- 7.6. Relevance of programmes offered, along with that of the curriculum is important. Therefore, monitoring, evaluation and updating of the curriculum needs to be done periodically in consultation with all stake holders, particularly the industries and SSCs keeping in view their requirements and changes in NOSs. The approved institutions under B.Voc degree programme shall incorporate this as a continuous and dynamic process, in-built in their system.
- 7.7. The B.Voc degree programme is a full time degree course. It should not be conducted as an add-on programme.
- 7.8. The institutions may like to appropriately use technology to improve the effectiveness of the delivery of courses.

8. Assessment:

- 8.1. The Skill component of the course will be assessed and certified by the respective Sector Skill Councils. In case, there is no Sector Skill Council for a specific trade, the assessment may be done by an allied Sector Council or the Industry partner. The certifying bodies may comply with and obtain accreditation from the National Accreditation

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Board for Certification Bodies (NABCB) set up under Quality Council of India (QCI). Wherever the university/college may deem fit, it may issue a joint certificate for the course(s) with the respective Sector Skill Council(s).

- 8.2. The credits for the skill component will be awarded in terms of NSQF level certification which will have 60% weightage of total credits of the course in following manner.

Name of the Course	NSQF Level Certificate	Cumulative Credits
Certificate	Level – 4	18 credits
Diploma	Level – 5	36 credits
Advanced Diploma	Level – 6	72 credits
B.Voc Degree	Level – 7	108 credits

- 8.3. The general education component will be assessed by the concerned university as per the prevailing standards and procedures. The following formula may be used for the credit calculation in general education component of the courses:

- General Education credit refers to a unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week. Accordingly, one Credit would mean equivalent of 14-15 periods of 60 minutes each or 28 – 30 hrs of workshops / labs.
- For internship / field work, the credit weightage for equivalent hours shall be 50% of that for lectures / tutorials.
- For self-learning, based on e-content or otherwise, the credit weightage for equivalent hours of study shall be 50% of that for lectures / tutorials.

- 8.4. The award of ‘Certificate’ / ‘Diploma’ / ‘Advanced Diploma’ / Degree to the successful learners in both skills and general education components of the curriculum may be done as illustrated at Table 1.

- 8.5. The institutions offering B.Voc degree programme should adopt and integrate the guidelines and recommendations of the respective Sector Skill Councils (SSCs) for the assessment and evaluation of the vocational component, wherever available.

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8.6. Letter Grades and Grade Points: The UGC recommends a 10-point grading system with the following Letter grades as given below:

Table 2: Grades and Grade Points

Letter Grade	Grade Point
O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B+ (Good)	7
B (Above Average)	6
C (Average)	5
P (Pass)	4
F(Fail)	0
Ab (Absent)	0

A student obtaining Grade F shall be considered failed and will be required to reappear in the examination.

8.7. Computation of SGPA and CGPA: Following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) may be adopted:

- The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the course components taken by a student and the sum of the number of credits of all the courses undergone by a student in a semester, *i.e*

$$\mathbf{SGPA} (S_i) = \sum(C_i \times G_i) / \sum C_i$$

where 'C_i' is the number of credits of the ith course component and 'G_i' is the grade point scored by the student in the ith course component.

- The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, *i.e.*

$$\mathbf{CGPA} = \sum(C_i \times S_i) / \sum C_i$$

where 'S_i' is the SGPA of the ith semester and C_i is the total number of credits in that semester.

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- The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

9. Certification of Awards:

- 9.1. Award of B.Voc degree or Advanced Diploma / Diploma / Certificate as the case may be, would depend on acquisition of requisite credits as prescribed in the guidelines and not on the duration of the calendar time spent in pursuing the course.
- 9.2. The certificate for skilling component would be awarded by the Sector Skill Council in terms of NSQF level either singly or jointly with the institution concerned and the general education grades will be certified along with the skill component in terms of certificate/ diploma awarded by the institution.
- 9.3. UGC guidelines on Choice Based Credit System (CBCS), and Guidelines on Curricular Aspects, Assessment Criteria and Credit System in Skill based Vocational Courses may be referred for further illustration on computation of SGPA, CGPA *etc.* to confer the awards as above.
- 9.4. Each of the awards shall specify within parenthesis, the Skill(s) specialization, such as:
 - B. Voc. (Renewably Energy Management)
 - B. Voc. (Retail Management)
 - B.Voc. (Retail Management and IT)
 - Advanced Diploma (Food Processing)
 - Advanced Diploma (Health Care)
 - Advanced Diploma (Hospitality and Tourism)
 - Diploma (Green House Technology)
 - Diploma (BPO)
 - Diploma (Jewellery Designing)
- 9.5. The students will have the option to exit with a Certificate, Diploma or Advanced Diploma after acquiring requisite no of credits. In case of affiliated colleges, such students may be awarded Certificate, Diploma or Advanced Diploma, as the case may be by the concerned College after a written authorization by the affiliating University.

10. Infrastructure and Faculty for B.Voc. programme

- 10.1. University/college needs to have adequate laboratory /workshop facilities for face to face delivery of skills and hands-on practice either

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owned or arranged through tie-up with the partner industry or any institution recognized by the certification agency.

- 10.2. The university/college should use its regular faculty for the conduct of general education component and also for the skills components, if existing. Additionally, they may hire faculty on contractual basis in the core trades only as per UGC norms and also guest / visiting / part time / adjunct faculty from either the industry or open market or NSDC approved training partners for imparting skills.

11. Admissions and Fee Criteria

- 11.1. The minimum educational qualification for admission into B.Voc degree course will be class XII pass or equivalent from any recognized board or university.
- 11.2. Equal weightage, at par with other subjects, should be given to vocational subjects at +2 level while considering the students for admission into B.Voc.
- 11.3. While deciding criteria for admission into any particular trade, the institutions will consider students having background in relevant stream at 10+2 level. For admission to the skill based vocational courses, preference may be given to the learners living in the local community. Reservation to SC, ST, OBC and PwD categories will be available as per the extant national / State policy. There shall be no age bar for admission in such courses.
- 11.4. Admissions may be done twice a year (summer / winter session), to facilitate a steady stream of learners joining the college and moving out as trained work force to the job market.
- 11.5. The applicants seeking re-entry into the education and training for further advanced leanings in their field of expertise in particular trade should get preference in admission over the new applicants.
- 11.6. Student fee should be decided as per the prevalent mechanism for fee fixation for aided courses in the university/college.
- 11.7. Attempt should be made to recover part of the operating expenditure from the student fee.
- 11.8. Students counseling should be an integral part of the admission process. Parents should also be involved appropriately.

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12. Monitoring and Review of Performance:

Every institution running B.Voc degree programme will prepare a schedule of activities along with the timelines. While the Principal and Nodal Officer will be responsible for time bound achievements of the milestones. The Advisory Committee would monitor its progress periodically and a review report shall be submitted to UGC. The UGC may constitute an Expert Committee to visit any of the institution under the scheme for on the spot inspection of the activities at any point of time.

- 12.1. University/college should develop bye-laws for running the B.Voc. degree programme.
 - 12.2. The B.Voc. programme should be evaluated and monitored by the university/college through its existing mechanism or by setting up an alternate mechanism, with involvement of industry representatives.
 - 12.3. Every institution shall prepare a schedule of activities along with time lines. While the Principal / registrar of the institution along with 'Nodal Officer' will be responsible for time bound achievement of milestones. The Advisory Committee would monitor the progress periodically, but at least once in six months.
 - 12.4. The Monitoring of the scheme should necessarily also look at the following areas:
 - a) Funds received and utilised by the college.
 - b) Student intake proposed, students admitted, on rolls, drop outs and certified – course wise.
 - c) Students placed – role / designation, organisation, starting salary, location.
 - d) Industry engagement: MoUs, guest lecturers invited, internship and on job training, workshop facilities provided on their premises / in the premise of institution, commitment on recruiting students, students actually recruited and their average salary, financial assistance provided to the college.
 - e) Curriculum alignment with industry requirements, National Occupational Standards and NSQF.
 - f) Lab / workshop facilities.
 - g) Extent of alignment with the needs of the local community.
- 13.** These guidelines will also apply to all such colleges / universities which have already been approved by UGC under this scheme w.e.f. next academic session.