Tuning

India

Reference Points for the Design and Delivery of Degree Programmes in Teacher Education

Vaibhav Jadhav,
Sanjay Kedia (eds.)

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Reference Points are non-prescriptive indicators and general recommendations that aim to support the design, delivery and articulation of degree programmes in Teacher Education. Subject area group including experts from India and Europe has developed this document in consultation with different stakeholders (academics, employers, students and graduates).

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Content

Preface

India moves towards becoming a true knowledge society and because of the imminent fourth industrial revolution, the Higher Education System in India faces several challenges.

The three biggest challenges identified for Indian Higher Education for the upcoming years are those of expansion, excellence and equity. To make sure all the students who enrol in Higher Education institutions across the country benefit from comparable high-quality educational experience, Indian Higher Education needs to develop comparable and compatible degree programmes (curriculum development) and build the capacity of university teachers (enhancing the quality of education and teaching).

The National Education Policy-2020 (NEP-2020) is grounded on the principles of Access, Equity, Quality, Affordability and Accountability. The NEP-2020 provides a "new" and "forward-looking" vision for India's HES and its quality. The policy emphasizes, among other, on:

- Enabling faculty and institutional autonomy;
- Revamping of curriculum, pedagogy, assessment and student support;
- Enabling increased access, equity, and inclusion through a range of measures, including greater opportunities for outstanding public education;
- Moving towards a more multidisciplinary undergraduate education.

In this backdrop, the NEP-2020 proposes to revise and revamp all aspects of the education structure, including its regulation and governance, to create a new system that is aligned with the aspirational goals of 21st-century education. The NEP-2020 recommends that all undergraduate and graduate programmes be developed on an underlying foundation of holistic education, which enhances the intellectual, social, ethical, analytical, and aesthetic capacities of all students.

According to the NEP-2020, teachers are at the heart of the learning process-their recruitment, continuous professional development, positive working environments and service conditions are an important aspect of quality and excellence in higher education. The policy further states that it is critical to empower the faculty with high competence and deep commitment to energize them for excellence in teaching and research. It recognizes that the most crucial factor for the success of higher education institutions is the quality and engagement of its faculty. Hence, the NEP-2020 makes critical interventions in reforming the current state-of-affairs to energize and engage faculty members towards excellence in teaching and research.

Modernisation of Indian Higher Education is also seen through equipping Indian Higher Education Institutions with procedures, tools, human resources and continuous professional development mechanisms necessary for Curriculum Internationalisation and creating institution-wide thriving cultures of internationalisation for all.

The motivation behind the Tuning India project comes from 2013, when the European Commission offered the University of Deusto the possibility to undertake a "Feasibility study into the relevance of a Tuning approach for Higher Education in India" within the broad cooperative relationship between India and the European Union. The Tuning India project builds on the recommendations formulated as an outcome of that 9-month study, which combined a policy documents analysis with interviewing key actors of Indian Higher Education: University Grants Commission, Indian Government Planning Commission, Association of Indian Universities, All India Council of Technical Education, Federation of Indian Chambers of Commerce and Industry (FICCI), National Assessment and Accreditation Council, as well as more than 25 of the most relevant universities from the five sub-regions of India. The target groups of the study were the policymakers, higher education authorities, university staff and students in India.

"Expansion", "excellence" and "equity" is what Indian higher education strives for – every university student should have a high-quality educational experience, while every person dreaming of higher education should have the right to enter a university. The Tuning India project brings together 15 Indian universities, along with 5 European Union (EU) partners, to try and make this dream come true. Academics, students, graduates, employers and other relevant stakeholders from the five sub-regions of the country have been involved in the process of (re)designing degrees to make them learner-centred, comparable and compatible, as well as relevant for the society and the labour market.

The Tuning India project uses the "Tuning Methodology", which has been successfully implemented in 130 countries since 2000. It is a university-driven project which aims to offer higher education institutions and subject areas a concrete approach to implementing competency-based and student-oriented approaches. Most importantly, Tuning has served as a forum for developing reference points at subject area level. These are relevant for making programmes of studies comparable, compatible and transparent.

According to Tuning, the change from a staff-centred approach to a student-oriented approach emphasises the fact that it is the students who have to be prepared to the greatest extent possible for their future roles in society. At this moment in the global process of reforms in higher education, it is experientially clear that it is not enough just to desire change, or even to programme it at the general level, but rather it is necessary to consider processes and tools at the institutional and degree programme level.

Tuning India has brought together a group of experts, highly qualified in their fields, from Indian reputed higher education institutions. It has provided a structured way for them to work together, both on issues regarding 4 subject areas (ICT, Law, Medicine and Teacher Education) and on aspects relevant to the entire area of higher education. Much of Tuning's work focuses on the role of subject areas. This aspect of Tuning reflects the conviction that only those who have actual knowledge and experience in teaching, learning processes and research at an advanced level can create the framework for developing new programmes and guarantee their quality, in design and delivery, in the new global context.

Tuning India has provided a platform for developing understanding and insight into how this can be best accomplished. In a carefully

organised process of dialogue and debate, all the universities involved have reached deeper levels of understanding regarding the elements which constitute the essence of degree programmes in a national and international setting. Both common and diverse elements have been identified and formulated in wording which is commonly understood. For the last twenty years, Tuning has proved to be an effective way of reaching international consensus while respecting – and indeed positively implementing – the rich diversity of educational traditions and the specific experience and insight of different subject areas.

In the course of its operation, the Tuning India project has developed a common language and conceptual framework. Thus, it favours dialogue between different academic traditions and facilitates mutual understanding and transparency between universities and the broader community of stakeholders – i.e. ultimately society at large. It has stimulated a process of reflection, development and innovation in higher education programmes. All of this has constituted an intense and demanding, but ultimately useful and rewarding, learning process for all those involved. The Tuning India project empowered those who are directly responsible for the design and implementation of curricula. The hands-on experience gave them the know-how and confidence to roll it out to their colleagues in other degree programmes.

The four subject area groups in Tuning India (ICT, Law, Medicine and Teacher Education), developed final documents following a similar procedure to obtain their results. Through discussion, creation of reciprocal knowledge and mapping the ways the discipline is learned and taught in the various countries, insight was gained and consensus built on what constitutes the vital core of each subject area.

This book reflects the outcomes of the work done by Teacher Education in the Tuning India project and shows in synthesis the consensus reached after intense, prolonged and lively discussions. The outcomes are presented in the standard Tuning format, introducing the methodology developed to design and to deliver degree programmes on the basis of well identified profiles and how this can be expressed in competencies and translated into learning outcomes. In general terms, we may consider that Tuning India developed reference points for the design and implementation of degree programmes in India.

In the carrying out of the Tuning India project, the collaboration of numerous academics and administrative staff from India and EU

Member States has been essential. A remarkable degree of talent, expertise, generosity, loyalty and commitment has distinguished the Tuning India project. We owe great gratitude to all the academics involved directly and indirectly in the elaboration process. They have shown tremendous commitment and imagination, finding new solutions and ways forward in an open and constructive dialogue. They have shown that Indian academics have the calibre and the vision necessary to tackle vital issues at an international level. Today's global society requires this kind of vision and commitment.

This project would never have been possible without the dedication and wisdom of the Subject Area Coordinators. They have been the pillars of the project, not only carrying great responsibility but also channelling discussions and debate in a constructive and stimulating manner. They have shown their ability to build consensus and reach outcomes which will prove useful for Indian Higher Education institutions in general.

We express our sincere gratitude to all participating universities who through their academic and administrative staff have offered us their time, energy and support to help meet our goals, piloting a concrete Tuning experience.

We would like to thank the European Commission, which through its Erasmus+ Programme has offered us the support that has made this project possible.

We also thank the European colleagues, who have greatly enriched the project, both with their wealth of knowledge and insight, and new questions and ideas.

This project means dreaming – imagining ways in which current practices can be transformed and improved. But it means not only dreaming of this future, but of getting down to the work of making it a reality. The consortium as a whole has demonstrated admirable integrity through its involvement and commitment working with determination in a disadvantaged situation during a historical moment of suffering at the international level, proving to be an example not only for the world of higher education but also for the entire society.

We would also like to highlight the important contribution made at each Policy Forum and plenary session by the people who spoke about their experiences enriching the discussions.

Finally, we would like to acknowledge the work of the project management team and the steering committee, whose devotion contributed to keep alive the activity, allowing the project to be completed on time and within budget. Whose enthusiasm kept teams motivated and on track, and whose dedication ensured that the project obtained the best possible result.

We hope and believe that the material contained in this publication will be very useful for all higher education institutions wishing to implement a competence-based and student-oriented approach, and that it will help them find and use the most suitable tools for adapting or creating higher education programmes to respond to the needs of today's society.

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Member Universities and Countries

The project is based on the results of a feasibility study launched by the EC in cooperation with the Indian government to find to what extent a Tuning project can contribute to, and be appropriate within, the strategic objectives of the reform of Higher Education in India; if Higher Education institutions would find it appropriate; how it could be implemented, on what scale and with which subject areas/ disciplines. The three biggest challenges identified for Indian Higher Education for the upcoming years are those of expansion, excellence and equity (12th Indian Five-Year Plan). To make sure all the students who enrol in Higher Education institutions across the country benefit from comparable high-quality educational experience, Indian Higher Education needs to develop comparable and compatible degree programmes (curriculum development) and build the capacity of university teachers (improving the quality of education and teaching). The objective of the project is to apply the Tuning methodology in universities of India in four subject areas that include Law, Medicine, ICT and Teacher Education. It also aims to develop Tuning Reference Points in these four subject areas; develop, implement, monitor and improve degree programmes for the first cycle programmes; and to promote regional and international cooperation between India and EU universities.

Teacher Education Subject Areas are comprised of five universities from entire India. The universities implementing in the project are:

1	Savitribai Phule Pune University, Pune
2	The IIS University, Jaipur
3	GD Goenka University, Gurgaon
4	Jagran Lakecity University, Bhopal

In this chapter, each university profile is presented to introduce the general information of the university that participated in this project.

1.1. Savitribai Phule Pune University, Pune

> The University stands for humanism and tolerance, for reason, for adventure of ideas and for the search of truth. It stands for the forward march of the human race towards even higher objectives. If the universities discharge their duties adequately then it is well with the nation and the people.
>
> - Pt. Jawaharlal Nehru (First Prime Minister of India)

These words of Jawaharlal Nehru embody in them the guiding principle of Savitribai Phule Pune University. Savitribai Phule Pune University, one of the premier universities in India, is positioned in the North-western part of Pune city. It was established on 10th February, 1949 under the Poona University Act. It occupies an area of about 411 acres. The campus houses 52 departments and centres working independently. The Savitribai Phule Pune University has completed a journey of 70 years, providing quality education to a large population in various subjects and continuously evolving itself to match the dynamic global environment. Initially there were only 18 colleges affiliated to the University, with an enrolment of over 8000 students. The university is one of the largest and prestigious universities in the world with student's strength of over 6,00,000. The university is having 691 affiliated colleges, 274 recognized management institutes, 121 research institutes and 20 other research institutes of national repute. There are 9 autonomous colleges and 10 colleges are recognized by UGC as "College with Potential for Excellence" and one college "College with Excellence". The university has a fully developed sports ground with world class sports facilities like basketball court, gymnasium, tennis, badminton court,

shooting range hall, football court, world class synthetic 700-meter track and indoor sports facilities available to all the students.

The higher education challenge for Savitribai Phule Pune University is threefold, namely expansion, inclusion and excellence - Expansion to serve the exponential demand, Inclusion for equity and access to all without compromising Excellence at par. The University therefore shall strive hard to metamorphose to facilitate a more holistic learning environment that enriches students with new knowledge and skills to engage meaningfully in the emerging socio-economic transformation. The university would continue to play its crucial role to shape the future of millions of youth in Maharashtra. The University is committed to promote innovations in learning processes, cultivate research & development culture, imbibe the principles of knowledge to wealth generation and bring about openness and flexibility in teaching and research framework. This can be achieved through fostering and adding to existing initiatives of Science Park, Skill Development Centre and Design Innovation Centre. To improve the academic collaboration between the departments and to efficiently utilize resources the Honourable Vice-Chancellor, constituted a committee to review the existing Departments of the University and Restructure them into a "School System". All the existing departments, schools, centres and chairs and units belonging to a given faculty have been categorized according to their fields into suitable schools under the respective faculties (The Maharashtra Public Universities Act 2016 has defined four Faculties, namely, Faculty of Science and Technology Faculty of Commerce and Management Faculty of Humanities and Faculty of Interdisciplinary Studies). A total of 17 schools have been constituted. The implementation of the same is done in a phase wise manner. The committee constituted or this purpose included senior professors belonging to our university and other universities and institutions from the country this serves as an excellent example of participative management. In addition, the school management committee will have representation from all departments ensuring participation from all. Another example of participative management is the constitution of the various bodies that take all decisions for the conduct of the university, like the Academic Council, Senate, Management Council, Board of Studies etc. The members of these bodies include officials of SPPU, faculty from this and other universities, academicians from other institutes /colleges, industry experts and eminent personalities of the society. All major decisions taken for the university have to be approved by these bodies as per Statutes and Act.

The university believes in empowerment of people, as evident by the decentralization of financial powers. The academic activities such as process of admission of students, deciding eligibility, and syllabus design conduct of examination etc. has been decentralized by the University. The individual department has freedom to administer these processes within the rules and regulations provided by the university and UGC. In addition to Departmental committees the departments have various other committees such as examination committee, curricular and co-curricular activities committee, students' grievance redressal committee etc. in which all the teachers are involved. This ensures smooth running of all processes and activities in the organization, while ensuring employee satisfaction resulting in quality education. The university attracts many foreign students due to its excellent facilities. It offers good accommodation facility. There is a provision of hostel for the students. There is a well-stocked library containing plenty of books regarding various subjects. The university offers different scholarships to the students. The university conducts seminars and conferences for the students.

1.2. The IIS University, Jaipur

The IIS University grew out of the International College for Girls (ICG) which was established in 1995, as a college affiliated to the University of Rajasthan, Jaipur. Since then, ICG has crossed many significant milestones in its journey towards excellence in higher education. Besides receiving numerous other accolades, it was accredited A+ by the NAAC of UGC in 2005. It was also identified as a Model College by the state government in 2006 and, thereafter, was conferred the status of Autonomous College in 2007. It was further recognized as a College with Potential for Excellence in 2010. In a national survey conducted by AC-Nielsen-ORG MARG in 2010 for the *India Today* magazine, ICG was rated as the topmost college in the state in Arts, Science and Commerce streams. Ranked among the top 30 institutions of the country in this survey, the College became a symbol of quality education and women's empowerment.

The institution —while functioning as an Autonomous College— was declared a Deemed-to-be-a-University by the Ministry of Human Resource Development, Government of India, in 2009, under Section 3 of the UGC Act 1956. This, more than an achievement, was a reaffirmation of our faith in the quality and innovation in research and

academics taken up at the institution right from its inception in 1995. Soon after becoming a Deemed University by the name of "The IIS University", it was recognized for its competence and strength and was placed in category 1, along with 38 other Deemed-to-be-Universities of Category 1 across the country, as a result of a review conducted by the "Tandon Committee" constituted by the MHRD.

With the grant of membership of Association of Indian Universities, Association of Commonwealth Universities, Association of the Universities of Asia and the Pacific, INFLIBNET and the grant of the 12-B Status by the UGC as well as accreditation by NAAC-UGC, the institution is committed to achieving high standards in the field of higher education. This has accorded greater reliability and credibility to our efforts and provided us with a unique opportunity to explore and put in place what is needed to empower our students for preparing them as worthy citizens ready to take on challenges, both personal and professional.

From a visionary beginning in 1995, the University is now moving on to newer heights as a digitally smart campus offering contemporary and relevant programmes and e-learning systems. Alongside its rapid growth and development, it retains its friendliness and warmth as it moves ahead on the oath towards educational excellence. With about 5000 students on its rolls and more than 300 faculty and staff members, the institution offers Undergraduate, Postgraduate and Doctoral programmes in Arts, Social Sciences, Sciences, Commerce and Management including such professional programmes as Fashion Design; Jewellery Design & Technology; Fine Arts, Computer Science & IT, Chartered Accounting; Company Secretaryship; and, Applied Accounting & Finance), besides Yoga and Dance (Kathak), at the UG level. At the PG level, it offers - besides the conventional MA, MSc & M.Com. programmes, MBA with Specialisations ranging from Marketing, Finance, International Business, and Human Resource Management to Tourism & Travel Management, Advertising & Brand Management and Retail Management.

The University thus places a lot of importance on holistic learning as also on honing the interpersonal and cross-cultural skills of students, thereby providing the vocabulary to succeed while fostering a desire to bring about a positive change in society. The study programmes on offer equip them to think critically and creatively in preparation for their future career. The pedagogy adopted is such that it not

only encourages class-participation and active reflection in lectures, seminars and tutorials, but also makes students learn from exposure to fieldwork, laboratory classes and ICT sessions. Moreover, a growing emphasis on blended learning —given the current crisis— has kept the teaching-learning fraternity abreast with the changing face of educational delivery and as evinced in the graduate outcomes that each programme strives to attain. The distinctive curricula are especially designed by keeping the vital components of community-outreach, skill-development and entrepreneurship in mind. Integration of games and sports, NCC, NSS, Rotaract and cultural activities in the curriculum —along with the award of credits to these activities— is aimed at the overall development of students.

Research at the University too is deeply embedded in academics. Students and faculty members are encouraged to actively participate in research-based activities. In addition to research projects sanctioned by external funding agencies such as ICSSR, DST, UGC, DRDE, DBT, ICMR, ICAR, etc., the institution also promotes research by sanctioning Student Research Projects and granting Research Fellowships. The University's double blind peer-reviewed research publications, in the form of academic Journals, are yet another step in this direction. The research papers and review articles, published in these journals, represent a broad range of intellectual perspectives and insights. For greater academic interaction and a robust research experience, the University also has collaborations with leading universities and research organizations/ institutes.

The facilities and infrastructure on campus are continuously strengthened and enriched for the promotion and conduction of research activities, on a regular basis. Faculty members, recognized as Research Supervisors, guide quality research in the various disciplines of Science, Commerce, Management, Arts and Social Sciences. The University also promotes the research endeavours of its faculty members by substantiating their work through grants and subventions, and by awarding Certificates of Appreciation, besides granting Research Fellowships to the meritorious ones.

Following recent changes and updates as per the UGC guidelines, the University is gearing up to adopt the vision of India's new National Education Policy 2020 as well, to give equal emphasis to academic subjects from a variety of streams. It proposes to do so by integrating more vocational subjects and recasting the entire experience in

line with the demands of and for the internationalization of higher education through its International Cell, IIS-TIE (Together International Exposure). Moreover, in order to ensure that the University functions as a well-oiled machinery and delivers the best of teaching-learning, it has several bodies constituted for the purpose, viz. Board of Management, Academic Council, Planning & Monitoring Board, Internal Quality Assurance Cell, Research Board, Standing Committee, Finance Committee and Sports Board, among others. Today, as the institution is poised to entering the 27th year of its existence, it continues to stand tall and is still raring to go with a renewed commitment to fulfilling the mandate that has been placed on it.

After all, its journey of excellence should go on for, like a keen traveler, it is not intent on arriving yet... the idea for it is to keep striving to blaze a trail and leave in its wake a rich legacy for posterity. In these unprecedented times of the pandemic, the world is not only experiencing a novel way of life but also witnessing new forms of teaching-learning. These times, therefore, call for innovative measures and we —on our part— are prepared to rise to the occasion even as we remain committed to delivering quality education and offering students a seamless learning environment where they are groomed to becoming world-ready citizens !

1.3. G.D Goenka University, Sohna Gurugram

GD Goenka University is one of the top ranked Private University in India offering programs from diploma to doctoral level in various disciplines. The University focuses on holistic development of students through inclusive, innovative, and value-based education and research. The University might be at a young stage, however the GD Goenka Group, is a leading educational setup driven by a passion for excellence in education and quality in life, where Globalization and Internationalization are the buzz words. GD Goenka University is an internationally acclaimed and premier institution of higher education in India. Quality education aimed at directing the students towards research, innovation and extension is the defining element of the GD Goenka University. The GD Goenka University, recognized by UGC, aspires to be a global leader in the 21st Century higher education ecosystem through enshrined core values of intellectual excellence, collegiality, diversity and integrity. GD Goenka University is also recognized as QS IGUAGE "Diamond" rated University.GD Goenka

University has state-of-the-art infrastructure, salubrious, air-conditioned and well-maintained Wi-Fi enabled campuses, well-equipped libraries and hi-tech laboratories. The residential facilities are world class and students have access to a half Olympic size swimming pool, gym with latest equipment and squash courts in the ultra-modern fitness center. GD Goenka University offers more than 100 programmes in its 60+ acre lavish green campus. More than 200 handpicked faculties instruct the students of more than 40 nationalities. The university has collaboration with more than 30 universities and professional institutions of the USA, Canada, Australia, UK and other countries of the world. Since the year 1994, the group has placed over 80% students in various companies. To-date, G D Goenka University has concluded thirty-one partnerships with universities in thirteen countries: USA, UK, Australia, Canada, France, Italy, Uzbekistan, Chile, Turkey, Malaysia, Taiwan, Denmark and China. Discussions are underway to substantially expand this global network substantially.The University recently conducted two joint conferences: (i) "International Conference on Sustainable Cities and Communities" with Arizona State University (USA); and (ii) "Recent Developments in Science, Engineering and Technology (REDSET)" with the University of Arkansas.GD Goenka Group aims to provide best technical and career oriented vocational training courses in the field of paramedics and allied healthcare with Certification and Diploma recognized from national and international bodies; expand the scope of telemedicine through E-health to reach out to the remotest areas where there is severe shortage of medical help; create employability and entrepreneurship through offered services and courses; establish, enhance medical and first aid awareness through customized corporate training programs for everyone, institutionalize medical facilities and CSR solutionsSchool of Education offers numerous programmes that specialize in various disciplines of education, including B. ED, Integrated B.A/ B.Sc. - B. ED, Diploma in Education and PhD in Education. These programmes are specially designed to offer professional development and certification in the various areas that are crucial to career advancement in the field of education. The programmes that are offered at the School of Education are approved by the State Government of Haryana and the Teacher Education programmes are certified by the NCTE. It is a world-class institution that imparts inter-disciplinary research and practical oriented education, focusing on hands-on experience and on learning beyond the four walls of a classroom. Offering a well-integrated and holistic curriculum, this School has become one of the top institutes offering Education programmes in Haryana. Here, the faculty pays

attention to the over-all development of the students in their care, and focuses on imparting skills that are in huge demand within the education industry. The mentor-mentee system provides the students individualized attention.

1.4. Jagran Lakecity University, Bhopal

Jagran Lakecity University (JLU) Bhopal is a private university established under Section 2(f) of UGC Act 1956 and is based out of Bhopal, Madhya Pradesh. JLU Bhopal is one of the fastest growing and one of the most awarded universities of Central India having practice-based pedagogy at its core. Currently, the university is offering 56-degree programs to more than 2500 students from 8 countries and 27 states of India. The university has numerous Partnerships with Top Industries and International Educational Institutes, ensuring the students get great exposure both nationally and internationally. JLU Bhopal is the only participating university from Central India ERASMUS+ programme under the Tuning India Project, funded by the European Commission and is also currently the country chair for Association of Universities of Asia Pacific (AUAP).

Jagran Lakecity University became the first university in MP & CG to be awarded the "DIAMOND" rating by QS I-Gauge, an International Rating agency in June 2021. JLU was ranked 30th best private university in India by the Education World in 2021 and also got the E-Learning Excellence for Academic Digitisation (E-Lead) Certification 2020, by QS I –Gauge. India Today and Outlook India, has ranked Jagran School of Journalism and Mass Communication, JLU Bhopal as No. 1 in Madhya Pradesh and top 15 in India in 2020 and the University has been bestowed with several prestigious awards, such as "University of the Year" by Government of Madhya Pradesh for consecutive five years from 2015 to 2019 and is recognized as a Global League Institution in 2015 at the House of Commons, London, UK. The university having 2500+ Students on campus. It has collaboration with 27 International Universities as our Knowledge Partners. 500+ CEOs and top professionals have interacted with JLU students. It has 232 Acre campus with Hi-tech Creative & Practice Labs with 55+ Professional degree programmes at UG, PG and Research level and the university library has 45,000 Books and online references with 1000+ Research publications and books published so far 10+ Patents filed up to last year. The international exposure is also available on the campus, now university has 8 countries represented in student population.

2

The Generic and Specific Competences

Tuning as a methodology categorizes competencies into two basic clusters: generic and specific. Generic competencies are those referring to competencies possessed by graduates of Higher Education Institutions (HEI) regardless of the programme or discipline. These competencies are deemed to be important by relevant social groups such as graduates and employers. Specific competencies on the other hand are specific to the discipline or are discipline-related. These competencies are crucial to the discipline and are manifested in the specific areas of expertise of the field of study. In the experience of the TI Project, particularly in Teacher Education, specific competencies encompass the teacher education discipline in general and not a specific degree programme in particular. The teacher education curriculum across the SAG members of India offers a wide array of specific degree programmes and it is essential to note that the specific competencies as identified in this document essentially include all degree programmes under the teacher education banner.

In the context of educational reforms and initiatives, the concept of competencies may be understood differently. Competences are defined in Tuning as a dynamic combination of knowledge, understanding, skills and abilities. Fostering competences is the object of educational programmes. Competences will be formed in various course units and assessed at different stages. As a rule, competences cannot be fully developed within one particular discipline. Competences are normally developed in an integrated and cyclical manner throughout a programme, sensitive not only to the content of learning but to the teaching format and methodology. The Tuning India project defines "learning outcomes" as measurable and assessable competence "components" which are

formulated by the teaching staff. Students are expected to be able to reach and demonstrate these learning outcomes at the end of an educational programme or a component of an education programme. Learning outcomes are described with active verbs (be able to do/ demonstrate/ complete). To reiterate, learning outcomes may belong to a whole programme or to a programme element (unit) Competencies are therefore viewed and operationalised as capacities that are acquired over a period of time – the context of which is training and experiences that one receives when completing higher education.

Competencies as defined differ from programme learning outcomes. Learning outcomes are statements of what a learner is expected to know, understand and be able to demonstrate after the completion of a learning experience. Competencies on other hand are developed in the process of learning and manifest through constructive interplay of the appropriate skills, essential knowledge and the right attitude. Competencies develop over a period of study and their development is fundamentally the penultimate goal of all degree programmes. Moreover, competencies can be both developed and assessed and the learner's acquisition and demonstration of competencies may be viewed in a continuum where one is not necessarily tagged as having or not having the competency but rather possesses or demonstrates it to an extent.

2.1. Tuning India Identified Generic Competences

The generation of the generic competencies was largely based on both the institutional and national standards of the different university participants of the SAG. The initial list identified by the Teacher Education SAG comprised 30 generic competencies. In order to determine the ranking of generic competences, broad consultation was carried out with graduates, students, employers and academics. The following steps were adopted to finalize the list of generic competences.

1	Consultation on competences was carried with the help of questionnaire having four-point scale.
2	Respondents were asked to rank the five most important competences
3	The results for specific competences are presented for every combination of Area/Group and separately for Ratings and Rankings. The results for generic competences are presented separately for each combination of Area/ Group and for all areas together separated by groups.

4	In the questionnaire, respondents had chosen the five most important competences. In order to analyze the results, the first chosen competence was assigned 5 points, the second one 4 points, the third one 3 points, the fourth 2 points and 1 point to the fifth and last one. The competences not chosen were assigned zero points. Therefore if all respondents chose one given competence as the first one, the mean of this assigned score would yield a top 5 for the mean of this competence. In the same manner, a given competence never chosen by any of the respondents among the top five would yield a mean of zero.

The lists of generic competences were prepared by each Tuning India Subject Area Group (SAG) in the following way:

1	Indian and European experts were consulted.
2	The first 5 top generic competences were identified by each group and then common GCs were also identified across each group. Then, next 5 GCs were read till 10 or 12.
3	In the same way, the least achieved generic competences were identified by each group and then common GCs were also identified across each group. Then, next 5 GCs were read till 10 or 12.
4	Finally identified highly ranked and least achieved generic competences were clubbed into Personal, Professional and Social competences.

The original items presented and agreed in the SAG are retained to present the holistic picture of its evolution. The 30 generic competencies initially identified are:

Competence Code	Competence
GC 1	Ability to do research
GC 2	Adhere to ethical principles
GC 3	Be socially responsible and humane
GC 4	Ability to apply knowledge in Practical situations
GC 5	Ability to plan and manage time efficiently
GC 6	Be a life - long learner

GC 7	Acquire problem solving capacity
GC 8	Ability to make reasoned decisions
GC 9	Have good interpersonal skills
GC 10	Appreciate and respect diversity and multiculturalism
GC 11	Ability to manage crisis effectively
GC 12	Act within the legal framework
GC 13	Demonstrate environmental and economic consciousness
GC 14	Ability to communicate effectively
GC 15	Ability to work as a team
GC 16	Demonstrate higher order thinking skills
GC 17	Be a reflective practitioner
GC 18	Be innovative
GC 19	Ability to work independently in a responsible manner
GC 20	Possess self-confidence and entrepreneurial spirit
GC 21	Be adaptable to emerging trends
GC 22	Practice professionalism
GC 23	Promote and ensure equal opportunities including gender issues
GC 24	Adhere to and enhance quality standards
GC 25	Demonstrate leadership qualities
GC 26	Ability to use available resources optimally and efficiently
GC 27	Ability to manage stress and maintain emotional stability
GC 28	Have organizational and managerial skills
GC 29	Be motivated for self-learning
GC 30	Be goal-oriented

These 30 generic competencies initially formulated by the Teacher Education SAG were presented. On discussion among the SAG members and EU subject experts, these 30 generic competences clubbed and final list of active generic competences consists of 8 GCs. The final list of GCs is as follows:

1	Be a Reflective Practitioner
2	Demonstrate Leadership Abilities
3	Ability to manage Crises effectively
4	Ability to do Research
5	Ability to work independently in a Professional manner
6	Adhere to Ethical Principles
7	Practice Professionalism
8	Appreciate and Respect Diversity & Multiculturalism

2.2. Reflections on the Results of the Survey with Stakeholders for Generic Competences

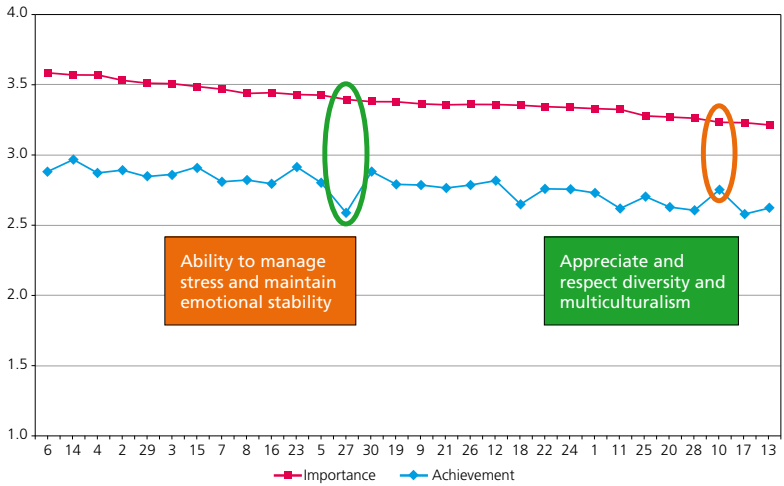
With regard to the rating of academics on Importance vs. Achievement of the generic competencies, it appears that largest gap is found on the Importance vs. Achievement in the generic competency **Ability to manage stress and maintain emotional stability** whereas the smallest gap is found in the generic competency **Appreciate and respect diversity and multiculturalism.** It also appears that the three top rated competencies on achievements are **Ability to communicate effectively, Ability to work as a team and Promote including gender issues** whereas the lowest rated competences on achievements are **Be a Reflective Practitioner, Ability to manage stress and maintain emotional stability and Have organizational and managerial skills**. In terms of ranking, academics ranked highest to the generic competences **Ability to do research and Be socially responsible and humane** whereas lowest ranking was given to the generic competences **Having organizational and managerial skills and Appreciate and respect diversity and multiculturalism**.

With regard to the rating of employers on Importance vs. Achievement of the generic competencies, it appears that largest gap is found on the Importance vs. Achievement in the generic competences **Ability to manage stress and maintain emotional stability and ability to manage crisis effectively** whereas the smallest gap is found in the generic competency **Act within the legal framework.** Based on the rating, the least important seems to be **Demonstrate environmental and economic consciousness**. In terms of ranking, employers ranked

highest to the generic competences **Ability to apply knowledge in practical situations and Adhere to ethical principles**.

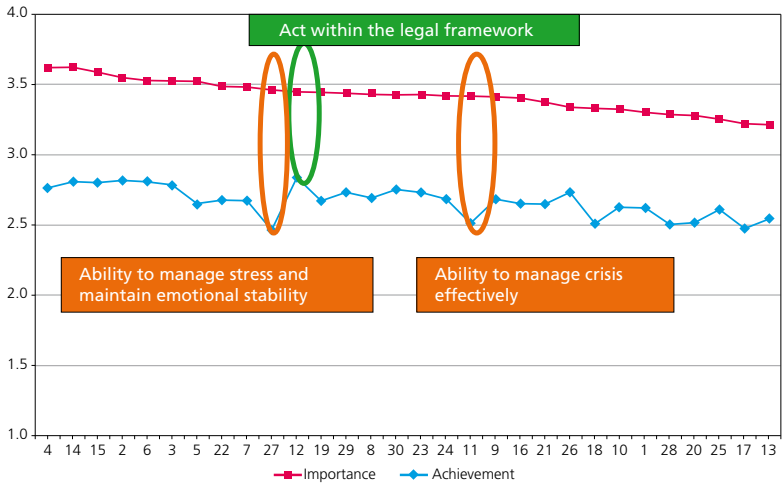
ACADEMIC

RATING - Importance vs Achievement



EMPLOYERS

RATING - Importance vs Achievement

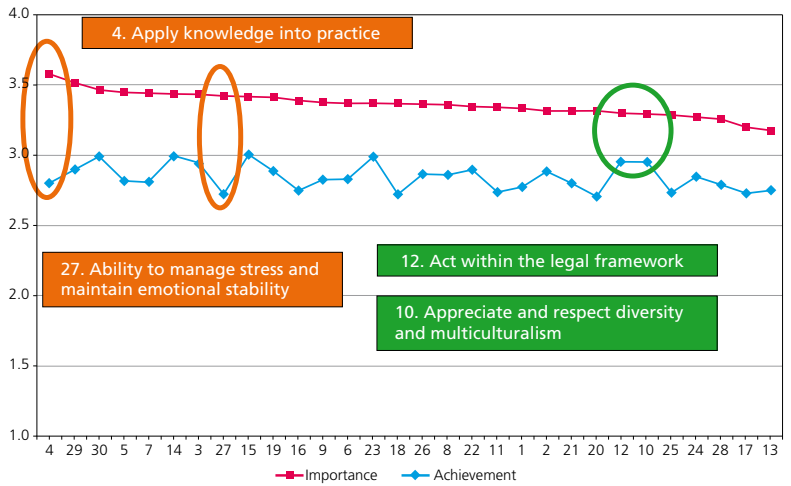


For the student respondents, their rating on Importance vs. Achievement seems to be consistent with that of employers. The results of data analysis and graphical analysis indicate that students and employers are more concerned with implying that application of knowledge into actual practice. In terms of ranking also, students seem to be consistent with that of employers. Both ranked highest to **Ability to apply knowledge in practical situation and Adhere to ethical principles**. Generic competence i.e. **Ability to do research**, ranked second by the students. For Teacher Education curriculum, action research is added, and some countries have been incentivizing the practice of research.

Also, most students have the main goal of completing the degree and getting a job, which further supplements the high rating of knowledge application into practical situations. Taken together, the rating of employers and students, while relatively consistent, exhibits a distinct difference: employers may prefer being "good" over "smart" while students think that they should be "smart" first before being "good"

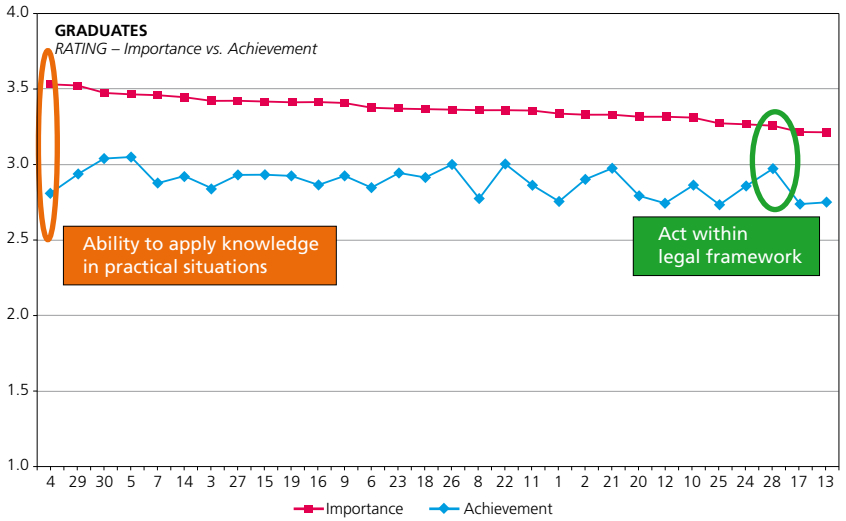
STUDENTS

RATING - Importance vs Achievement



Graduate respondents exhibited high perception of achievement i.e. these are the only stakeholders rated 4 out of 30 generic competences above 3.0. The largest gap is explicit in **ability to apply of knowledge**

into practice, which may be interpreted as an indication of perceived low usefulness of curriculum content and training with respect to what is expected and required in the world of work. In terms of ranking, graduates ranked highest to the generic competences i.e. **Ability to do research and Apply knowledge in practical situations.**



Overall reflections on the results of the survey with stakeholders for generic competences exhibited that rating on importance vs. achievement seems to be consistent among employers, students and graduates. They had rated highest on importance to the generic competence i.e. **Ability to apply knowledge in practical situation.** All the three stakeholders also ranked highest to the same competence i.e. Ability to do research.

2.3. Specific Competences of Teacher Education

One of the important aims of this project is to produce/ create specific competencies that are common to all members of the teacher education from India. The outcome of this project would allow persons to move smoothly from one place to another place within India due to the creation of common specific functional competences. These specific functional competencies can facilitate many aspects of internationalization for

teacher education programmes, like open the path for staff exchange programmes, student exchange programmes, credit transfers etc.

After finalized the list of generic competencies that are applicable to all professions that is Law, Medicine and ICT, SAG members of Teacher Education were assigned to identify the specific functional competencies for the profession of teacher. The determination of the specific competencies for teacher education was carried out in a scientifically valid way. SAG members of Teacher Education conducted a discussion and all agreed to adopt the common procedure to identify the specific competences. First of all, they investigated the definition of specific competencies for teachers employed by participating member countries including universities, teacher training colleges, and stakeholders, in addition to this, the NCTE document based on Competency Based and Commitment Oriented Teacher Education and the prospectus of the identified teacher education programmes. The Teacher Education SAG members consulted these and then established the specific competencies for teachers.

With regard to definition, from the perspective of teachers, the Teacher Education SAG believed that they also need a clear definition of what can be expected of them for their professional identity. The Teacher Education SAG members agreed that teachers must be able to demonstrate that they can perform certain expected things. These are the specific functional competencies of what the teaching workforce should be able to do. In determining the specific competencies of the teacher as a practice, the Teacher Education SAG members focused on the function that particular persons are actually performing. For the purpose of establishing the specific competencies of a teacher, there was in-depth discussion among Teacher Education SAG members, literature, national country policy and agenda, quality framework of accrediting agency i.e. NCTE.

In the beginning a preliminary working within small groups based on countries of origin, was initiated. This competency study was done through (a) long deliberation (or meeting) within Teacher Education SAG members investigating the profession of teacher at a Bachelor's degree level, and close examination of training programmes and standards for teacher certification, and also accrediting training quality agencies that provide training and set up this standard, and (b) a wide-ranging review of national and international literature including consulting several lists of specific competencies already developed in other fields.

Teacher Education SAG members' descriptions of specific competencies for teachers were defined as a type of skill or behaviour, whereby the teacher can apply the knowledge, skills, and attitudes or values in a work environment. Whatever the competency suggested to include should be specific and unique to teachers, observable, and measurable. The Teacher Education SAG members consulted European counterparts throughout this deliberation session, this method of consultation ensured that the deliberations were on track.

Based on the steps taken above, it could be concluded that specific competencies for Teacher Education SAG were derived following the same process as used in formulating the generic competencies. The result of this exercise was presented as the basis for the formulation of the specific competencies for Teacher Education. The lists of specific competences were prepared by Teacher Education Subject Area Group (SAG) in the following way:

1	Indian and European experts were consulted.
2	The first 5 top specific competences were identified by each group and then common SCs were also identified across each group. Then, next 5 SCs were read till 10 or 12.
3	In the same way, the least achieved specific competences were identified by each group and then common SCs were also identified across each group. Then, next 5 SCs were read till 10 or 12.
4	Finally identified highly ranked and least achieved specific competences were clubbed into Personal, Professional and Social competences
5	The original items presented and agreed in the SAG are retained to present the holistic picture of its evolution.

The 24 specific competencies initially identified are:

1	Have awareness about educational policy and legislation (children rights)
2	Acquire knowledge and understanding of the different Indian types of curricula
3	Understand and apply Suitable Classroom Management Techniques/ Strategies
4	Understand child and adolescent development

5	Have mastery over the subject(s) they will be teaching
6	Have command on the medium of instruction
7	Prepare lesson plans (& execute them effectively)
8	Ability to use a range of appropriate pedagogical practices in the classroom
9	Ability to use a variety of assessment tools for both formative and summative assessment
10	Assume different roles in the students learning process (motivator, counsellor, mentor, facilitator, guide, role model & friend)
11	Demonstrate by their personality and work style the basic values of humanism enshrined in the Constitution of India and UN documents
12	Practice inclusion and respect, for differences and diversity in their classroom
13	Expose the students to international/global trends
14	Treat students as individuals and inculcate a sense of responsibility in them
15	Help the students understand their own 'Self' in social context
16	Help students to identify their interests & abilities
17	Encourage students' critical thinking abilities
18	Encourage creativity (imagination and openness to novel ideas) among school children
19	Provide support for academic enrichment
20	Facilitate students' participation in co-curricular activities
21	Provide opportunities for & encourage students to become independent learners/self learners
22	Involve parents in child's education
23	Teachers' accountability (towards the profession, learners, institution, authorities)
24	Seek & use feedback from stakeholders for professional development

The initial list of specific competencies comprised 24 items. Identification of possible redundancy and over-laps related to functionality reduced the number from 24 to 06. After long deliberation, Teacher Education SAG members finally agreed on the final list of specific competencies, shown below:

1	Have Mastery over the subject (s) they will be teaching
2	Involve Parents in child's education
3	Prepare lesson plan & execute them effectively
4	Ability to use a variety of assessment tools for both formative and summative assessment
5	Facilitate students' participation in co-curricular activities
6	Expose the students to international/ global trends

2.4. Practice Analysis

A survey of stakeholders was taken to identify the generic competencies applicable to all programmes that are Law, Medicine, ICT and Teacher Education, and specific competencies of teachers from related knowledge and skill bases. This survey was done by inviting participation from graduates, employers, academics and students.

Having established the essential generic and specific competencies for teacher education, a survey was used to verify what actually happened and whether this is what is required in the field of teacher education. The survey was conducted online or in print and was given to graduates, employers, academics and students. The participants were asked to state the importance of each generic and specific competency and to what extent each competency was achieved (or emphasized) in the programme. The participants were asked to rate each specific competency using four scales ranging from "1=not important to 4=strongly important". They were asked to add any generic and specific competencies deemed important and developed or achieved by the institutions. The participants were given columns to provide comments regarding the generic and specific competencies. By doing so, the validation of generic and specific competency statements was carried out. To ensure that the profession was being properly consulted and involved, and the results would therefore be relevant, each group of stakeholders had to be comprised of at least 40 participants. Finally, the participants were asked to select the five most important competencies in their opinions as earlier presented in Section 2.2.

3

Teacher Education India- Meta Profile

As recognized across the world, education is the necessity to any society. The role of teacher also involves the character building of the taught apart from designing and implementation of the curriculum. Teachers cause desirable and anticipated revolution in the society silently. In short, a teacher inspires and shapes the destiny of the nation in class rooms. Realizing the above facts, the teaching profession is considered as the noblest profession in India.

In fast developing nations such as India in Southeast Asia, education plays a very important role in social and economic mobility. Our teacher educational institutions are instrumental in shaping teachers' orientation towards social action and try to overcome the constraints due to the inequality, poverty, and social structure. As such, when we discussed teacher education, we could not but agree that it usually revolves around issues of:

- Adopting and Reforming –mainly adopting best practices in reforming the way we operate teacher education;
- Adapting and Restructuring –mainly adapting quality systems in restructuring our organisation of teacher education;
- Altering and Remodelling –mainly altering our paradigm about teacher education to remodel the way teachers operate in the classroom; and
- Adding and Rebranding –mainly adding new dreams, ideas, concepts and innovations in rebranding teaching and teacher education.

In this perspective, Tuning project in India was initiated by the European Commission within the broad cooperative relationship between India and the European Union (EU). The aims of the study were to ascertain to what extent a Tuning project might contribute to, and be appropriate within, the strategic objectives of the reform of Higher Education in India;

In this context an attempt has been made to in this chapter to illustrate the process adopted on the Meta-Profile development, dynamics, processes, and outputs of the Meta-Profile as well as an example of synthesis of the Indian Meta-Profile vis-à-vis the regional profile of the teacher education programme.

3.1. Development of the Meta-Profile of Teacher Education

Research has shown that teacher quality entails, inter alia: professional competence; teacher personality; performance responsibility; teacher-student interaction; and student problem-handling, while teacher effectiveness is about: effective teaching behaviour; teaching strategy; teaching outcomes; and classroom atmosphere management.

The Teacher-Education curriculum normally consists of: the subject matter, the pedagogy, and the practice. So given the scenario, why do we need an Education Meta-Profile for India? Basically, there is a need to transform teacher education into a shared area for universities. There is a need to reflect and plan joint actions while still respecting individual institutional autonomy. Nonetheless, the jointly constructed methodology is highly participative in nature. What this means is that when we are referring to the Meta-Profile it is not only symbolic but operational, since we ensured that only the profiles that converge were used.

Starting with these competencies (generic and specific), the Teacher Education group then embarked on a reflection process on the topographies of the key features in the Teacher Education Meta-Profile for India for the present and future performance contexts. These competencies were selected and then grouped together in three dimensions.

The stages of work in a project for the academic groups are *normally*

1. identifying relevant generic and subject specific competences through consultation with a range of key stakeholders, including employers;

2. exchanging good practices in approaches and techniques in teaching, learning and assessment;

3. exploring how a mutually agreed cumulative credit system can facilitate student mobility and the learning accounts of part-time and interrupted students; and

4. exploring how quality assurance and enhancement frameworks and procedures can be used at programme level to further enhance student learning.

At the first General Meeting, which took place in Bangalore on 7-11 May 2018, there were 8 participants.

The Teacher Education SAG was represented by **Ms. Maria Yarosh,** Deusto University, Spain, **Ms. Emma Melgarejo,** Educators for an Interdependent World, Rome, **Dr. Reva Raina,** G.D. Goenka University, India, **Dr. Aiden Serry,** Trinity University, Ireland**, Dr. Sanjay Kedia,** The IIS University, India, **Dr. Mritunjay Prasad,** Vinoba Bhave University, India along with **Dr. Yasmin Ghani Khan**, Jagran Lakecity University, India and **Dr. Vaibhav Govindrav Jadhav**, Savitri Bai Phule, Pune University, India as Coordinator & Co-coordinator of the SAG, respectively.

3.2. Conceptualisations of the Meta-Profile

The conceptualisation of Meta-Profile is based on a cluster-based approach. SAG members of Teacher Education group were divided into groups and studied the identified generic and specific competences. Three unique Meta- Profile were created that were consequently merged.

Process of Formation of Meta- Profile

The process of formation of Meta-Profile is outlined as follows;

1. **Definition of Generic Competences: A Thematic Perspective:** Anybody graduating from any institution in India or may be across the world must possess some basic qualities and competencies acquired mostly during the process of graduating. These basics expected from any graduate may be referred to as generic competencies.

From SAG perspective: Being a lifelong learner, being ethical, professional, goal oriented and legally updated are a few GCs that cannot be overlooked. Yet, being a team player with leadership qualities and being a collaborative problem solver play an equally important role in the Teacher Education SAG because each teacher educator has to educate a teacher to understand their students. This is a chain:

All are human interactions flowing down to the immature minds and innocent hearts. Children learn what they see, feel and experience more than what is told to them. Therefore, the Teacher Educators should display humane or soft skills and should help the pupil-teachers embrace them, too.

The group followed the following process described as:

- Identified the top 5 GCs ranked by each group (Academics, Graduates, Students & Employers)
- Identified the commons across all groups
- Then, scanned through the next 5 till 10 or 12 on the same lines
- Next, identified the least achieved GCs by each group and followed same sequence again, i.e.
- Identified the commons across all groups
- Then, scanned through the next 5 till 10 or 12 on the same lines
- Finally, we got a set of most important GCs based on rating & ranking and also a sense for the level of achievement of these GCs.

2. **Identification of specific competences:** The process followed to compile the importance/grading of SCs was the same as that mentioned above for GCs.

India is known for its "**Unity in Diversity**". Unity in geographical & political identity as a Nation whereas diversity in a wide range from bio-diversity, climate, clothing, food habits, language,

culture, literature, religions, traditions, rituals and much more. Teachers as professional may differ in their subject expertise, lingual & cultural identity or political choices but all GCs and SCs identified are independent of these facts specifically when we refer to professional ethics, commitment, legal framework (in line with the Preamble of the Constitution of India and Delor Committee Report of UNESCO) and unbiased assessment. Therefore, despite differences of regional & institutional culture, the group had an unprejudiced reflection and rational approach to the next classification of competences in terms of **Personal, Professional & Social** competences. Out of 30 GCs, 8 were identified as personal competences, 3 as professional and 5 as social whereas as 2 GC were found to be transpassing a single competence group. Among the 24 SCs, 18 were identified as personal competences, 1 as professional and 3 as social whereas as 1 SC was found to be transpassing a single competence group while another one was common to all three groups.

3. **Consultation and Reflections:** It was observed in general that most curricula in Teacher Education, after the National Curriculum Framework of Teacher Education 2009 was published, did cover most of the identified GCs and SCs. The survey result seemed to match when it came to ranking and rating of GCs & SCs but some high rated or ranked GCs & SCs were low achieved. It could be a possibility that the implementation and pedagogy may need modification for achievement of these GCs & SCs. A more comprehensive interpretation will be possible when the bridging activity is done.

4. **Elaboration of Meta-Profile of Teacher Education Graduates:** The process followed to reach this meta-profile has been discussed above. All GCs & SCs were re-organized and clubbed into linked competence groups.

   The highlight of the meta-profile is that it caters to Indian social aspects of "**teaching**" **as a service of high social repute,** but not as a profession of equivalent economics rewards; though, retaining the social repute, the economically profitable version of the profession is also making way into the Indian list of most like professions.

   Within the group, some reasoned debate on this aspect was heard. A consensus was reached by weighing high on

professional ethics and commitment to the job. Interpersonal skills, team player and leadership qualities also made a lot of noises during the task. Finally, all agreed within the group and it was also acknowledged after the presentation by audience including those from Tuning Africa that "Humane Teachers" with "Cultural Legacy" may make the world a better place for our children.

3.3. Prioritizing the Competences

We identified the top 5 GCs ranked by each group and further identified the commons across each group, then finally commons across 3 groups. The steps were followed for GC was repeated on SCs too. Then we clubbed the identified highly ranked & least achieved GCs & SCs into **Personal, Professional & Social competencies**.

Finally, we phrased an "Umbrella definition" with basic aspects that supposedly covers all the GCs and SCs expected in TEACHERS graduating with Professional Teacher Education Degrees from Indian Universities. This was done keeping in mind emerging global trends & local needs.

3.4. Preliminary Meta Profile of Teacher Educators

To begin based on the review of literature and conducting research study, the teacher educators' team identified the following 10 competencies of the teacher educators.

I. *Lifelong Learning Competence*

- Lifelong learner
- Research
- Reflective Practitioner
- Higher Order Thinking Skills

- Problem Solving
- Content Mastery
- Understanding Curricula Types
- Seeking & using feedback
- Being Professional & Ethical

II. *Policy & Futuristic Competences*

- Education policy & Legislation
- Children's rights

III. *Pedagogy Competence*

- Demonstrate humanism
- Suitable classroom strategies
- Lesson planning
- Student Centred Methods
- Co-curricular Activities
- Encourage Creativity & Critical Thinking
- Assume different roles in students' learning process
- Help students identify their abilities
- Help students understand themselves
- Help students become self-learners
- Involve parents in child learning

IV. *Goal Orientation Competence*

- Goal Orientation
- Reasoned Decisions

V. *Practical Competence*

- Self Confidence
- Applying Pedagogy
- Understand Child Development

VI. *Assessment Competences*

- Using varied assessment tools

VII. *Managerial & Leadership Competences*

- Leadership qualities
- Work independently
- Crisis Management

VIII. *Environmental Consciousness Competences*

- Environmental Consciousness

IX. *Communication Competences*

- Interpersonal Skills

X. *Inclusion Competence*

- Treat students as Global Citizens
- Social Responsibility
- Humane
- Respect diversity & Multiculturalism
- Professional Ethics
- Involving Parents
- Treat child as individuals

3.5. Dimension of 21st Century Teachers' Competences

The 21st century qualities essential in teacher education are conceptual, contextual, lifelong learning, managerial, pedagogical, research, analytical and development of professional teachers**.** The major eight dimensions of 21st century teachers' competence is shown in the following diagram.

Major Dimensions of Teacher Education

1. Conceptual:

   Have mastery over the subject(s) they will be teaching- They can apply technological, pedagogical and content knowledge (TPACK) for enriching the learning and teaching process.

2. Contextual:

   Involvement of parents in child's education- Teachers can analyse various context such as historical background, present socio-economic status, cultural, linguistic, and religious context of family and community profile of the learner.

3. Lifelong Learning:

   Here teacher play the role of reflective practioner- Who reflecting on one's actions to engage in a process of continuous learning and the capacity to reflect in, through and on practice in order to improve performance.

4. Management:

   Demonstrate leadership qualities and have ability to manage the crises- Here teacher creating a task for the team and applying management skills to guide for attaining goal in a smooth and efficient way, also dealing with a disruptive and unexpected event with proper time management and optimal utilization of available resources.

5. Pedagogical:

   Prepare lesson plans & execute them effectively- Teacher involve in preparing and executing lesson plan also incorporating technological, pedagogical, and content knowledge (TPACK) for making teaching learning situation effective and productive.

6. Evaluation:

   Ability to use a variety of assessment tools for both formative and summative assessment- It focuses on developing and using the effective tools to evaluate the learning outcomes and graduate attributes.

7. Research and development:

   Ability to do research- It involves the designing a plan to conduct action research at workplace.

8. Student's Career:

   Ability to work independently in a professional manner- It performs individual and group task in confident manner.

3.6. Evolution and Validation of the Meta-Profile

Based on the discussions and reflections of the results of the survey for both generic and specific competencies, the Meta-Profile for Teacher Education was developed using a rationalist approach. Members of the Teacher Education SAG were assembled into groups and instructed to develop a Meta-Profile for Teacher Education. Each group was allowed to use any method in the formulation of the Meta-Profile. The output of each group was presented and was employed to cluster similar categorisations.

Teacher skills refer to the competences of the teacher necessary to ensure harmonious classroom, school, and community relations. These competences also complement the teacher's mastery of both content and pedagogy.

Teaching as a profession needs to engage technology; but cannot be replaced by technology. This is because it involves evolution of human emotions in social surrounding by interactions and collaborations which a machine cannot provide.

4

Programme (Re) Design Process Outputs

Chapter 4 discusses the design or redesign of teacher education programs in tune with Tuning India program. The collaboration resulted in the development of Meta – profile of the university. The general and specific competencies were identified. The program is changed in line with international standards. The new degree profile will enhances international collaboration with staff and students and exchange of experiences across teacher education institutions worldwide. This chapter describes the teacher education programmes from four universities which designed or redesigned their programmes under the Tuning India programs. All these universities have implemented the Tuning India Approach in their degree programs. The four implementing universities involved in the discussion are The IIS University, Jaipur**,** G.D Goenka University, Gurugram, Savitribai Phule Pune University, Pune, Jagran Lake City University, Bhopal. Meta profile of the Universities are developed in tune with Tuning India Approach and competencies both generic and specific competencies expected to be developed among graduates through the redesigned Teacher Education programs are identified through survey among all stake holders i.e parents, students, teachers, graduates and employers. In the next step those course components which develop the identified competencies are explored. If the course components in the existing course curriculum are not developing any of the generic and specific competencies the existing course curriculum is redesigned. The redesigned course curriculum now develops the core competencies identified.

These competencies expected to be developed among graduates are according to the international standards and with the National Educational policy 2020.The redesigned curriculum tend to prepare global professional teachers who can teach worldwide.

4.1. Implementing Universities

Savitribai Phule Pune University

Savitribai Phule Pune University is one of the implementing universities. Savitribai Phule University has selected its B.Sc., B.Ed. Bachelor of Science; Bachelor of Education for Tuning India Project. It has modified the curriculum and made its competence based curriculum. Savitribai Phule Pune University with its Vision and Mission of imparting education to all sectors of society offers this program through School of Education under the Department of Education and Extension. It is a 4 Yrs. Integrated Teacher Education Program. It is Bachelor Level Degree Programme. This is regular program and recognized by National Council for Teacher Education (NCTE) a statutory body of Ministry of Human Resource Development (MHRD), Government of India, New Delhi

The eligibility condition for this course is as following:

After completion of Grade 12th or Equivalent completion of Higher Secondary School Certification along with passing the Common Entrance Test (CET) conducted by respective state authority. Candidate must have qualified Higher Secondary School Certification along with minimum 55% marks. Candidate must have qualified Higher Secondary School Certification along with minimum of two subjects (Physics, Chemistry, Biology, and Mathematics).

The four years Integrated Teacher Education Programme (ITEP) in Arts and science stream is offered for higher secondary school certified students. This program is intended to result in a paradigm shift in teacher preparation (NCTE, 2019). This is a specialized course with intrinsic integration of pedagogy and academic content, along with sustained engagement with liberal disciplines of knowledge and field of education. This Integrated Teacher Education Programme (ITEP) is designed inculcating the world's best practices in the field of Teacher Education sector especially in the field of ICT, Yoga, and Inclusive Education.

Future fields, sectors of employment/ occupation of graduates Now-a-days, in India the New Education Policy, 2020 is focusing on the development of quality education and teacher training programme. Developing 21st-century skills among the learner to help for the workplace of the future is another area being promoted for teachers to add to their teaching repertoire. The rising demand for trained teachers and the belief that a training certificate acts as guarantee against future unemployment has made teacher education a profitable business proposition. This programme accomplishes the needs of trained teachers and social need-based curriculum.

Opportunities for higher degree in Higher Education

1	They will eligible for Master of Education (M.Ed.)
2	They will eligible for Master of Science (M.Sc.)
3	They will eligible for Master of Arts in Education (M.A.)

Table 1

Description of the degree profile of the new programme or a revised programme in terms of generic and subject-specific competences

Sr. No.	Components	Revised-Competence	From stke' cons.	Agreed definition	Program LOs (in present tense 3rd person singular or plural: "Students…"
1.	Professional	1. Conceptual Competences • Have mastery over the subject(s) they will be teaching (s)	Ok	Applying technological, pedagogical and content knowledge (TPACK) for enriching the learning and teaching process.	Select suitable pedagogical knowledge to transact the content in the classroom
		2. Contextual Competences • Involve parents in child's education (s)	Ok	Analysing various context such as historical background, present socio-economic status, cultural, linguistic and religious context of family and community profile of the learner.	Establish the relationship between parents and socio-cultural background of the learner.
		3. Lifelong Learning Competences • Be a reflective practioner (g)	Ok	Reflecting on one's actions so as to engage in a process of continuous learning and the capacity to reflect in, through and on practice in order to improve performance.	Analyses of the teaching leaning situation in order to develop as a reflective practitioner
		4. Management Competences • Demonstrate leadership qualities (g) • Ability to manage crisis effectively (g)	Ok	Creating a task for the team and applying management skills to guide for attaining goal in a smooth and efficient way.	Initiate steps to develop leadership skills among leaners.
				Dealing with a disruptive and unexpected event with proper time management and optimal utilization of available resources.	Manage the crisis in and outside of classroom during any real-life situation.

Sr. No.	Components	Revised-Competence	From stke' cons.	Agreed definition	Program LOs (in present tense 3rd person singular or plural: "Students…"
2.	Performance	1. Pedagogical Competences • Prepare lesson plans (& execute them effectively) (s)	Ok	Preparing and executing lesson plans incorporating technological, pedagogical and content knowledge (TPACK) for making teaching learning situation effective and productive	Apply appropriate teaching techniques, methods, approaches, maxims, strategies and devices to achieve the desire learning outcomes.
		2. Evaluation Competences • Ability to use a variety of assessment tools for both formative and summative assessment (s)	Ok	Developing and using the effective tools to evaluate the learning outcomes and graduate attributes.	Design assessment tools to measure the learning outcomes Analyze the data gather from administer tools in order to enhance the teaching learning process.
		3. Research and Development • Ability to do research (g)	Ok	Designing a plan to conduct action research at workplace.	Conduct the action research for enhancing the effectiveness of teaching learning process.
3.	Social	1. Student's Career • Ability to work independently in a professional manner (g)	Ok	Performing individual and group task in confident manner.	Develop the professional capabilities among the learner for working as an individual or in a group.
		2. Ethical behavior • Adhere to ethical principles (g) • Practice professionalism (g)	Ok	Setting codes of conduct to reduce the level of organizational risk and increase institutional performance.	Value ethical practices in the workplace for develop as institute of national importance.
				Conducting best practices of professionalism in appropriate manner.	Apply constructive feedback from colleagues to improve professional knowledge and practices.
		3. Cooperative and Collaborative • Facilitate students' participation in co-curricular activities (s)	Ok	Framing and assigning group task for co-curricular activities.	Organize activities and events to emphasis on team work.

Sr. No.	Components	Revised-Competence	From stke' cons.	Agreed definition	Program LOs (in present tense 3rd person singular or plural: "Students…"
3.	Social	4. Inclusion • Appreciate and respect diversity & multiculturalism (g) • Expose the students to international/global trends (s)	Ok	Accommodating heterogeneous student population and developing positive attitude towards global citizenship and social responsibility.	Apply methods for catering to diversity in the classroom situation.
				Facilitating international exposure to student to become a global citizen.	Organize the events and activities for learner to understand the global trends and become global teacher.

In the bridging exercise it is noted that all sixteen competences are addressed in the university's existing curricula. Competences being covered by different courses are presented here under:

Sr. No.	Components	Competences	Papers codes covering the competences
1.	Professional	Have mastery over the subject(S) they will be teaching	• BED111 Understanding of Education and its Perspectives • BED 241 ICT for Teaching Learning I • BED 341 ICT for Teaching Learning II • BED 331 Teaching Competency I • BED 421 General Pedagogy • BED 431 Teaching Competency II • BED 531 Teaching Competency III • BED 541 ICT(Web) • BED 631 Teaching Competency IV • BED 621 Pedagogy of Physical Sciences • BED 622 Pedagogy of Chemical Sciences • BED 623 Pedagogy of Mathematical Sciences • BED 624 Pedagogy of Biological Sciences • BED 641 E-learning & Educational Development • BED 731 Teaching Competency V

Sr. No.	Components	Competences	Papers codes covering the competences
		Be A Reflective Practitioner (G)	• BED111 Understanding of Education and its Perspectives • BED 242 Yoga I • BED 342 Yoga II • BED 411 Childhood & Growing Up • BED 442 Yoga III • BED 512 Psychology of Leaner & Learning Theory • BED 532 Understanding Self • BED 601 Creative and Critical Thinking • BED 612 Psychology of Learner & Learning Theory • BED 641 E-learning & Educational Development • BED 701 Inclusive Education • BED 741 Theatre, Arts Heritage, Tradition • BED 801 Guidance & Counseling
		Involves parents in Childs Education(S)	• BED 411 Childhood & Growing Up • BED 501 Environmental Education • BED 512 Psychology of Leaner & Learning Theory • BED 612 Psychology of Learner & Learning Theory • BED 801 Guidance &Counseling • BED 841 Language & Communication
		Demonstrate Leadership Qualities(G)	• BED 812 Curriculum Development • BED 813 Quality & Management of Secondary Education • BED 842 Entrepreneurship
		Ability to Manage crisis Effectively (G)	• BED 813 Quality & Management of Secondary Education • BED 842 Entrepreneurship
2.	Performance	Prepare Lessons (& Execute them Effectively(S)	• BED 241 ICT for Teaching Learning I • BED 341 ICT for Teaching Learning II • BED 331 Teaching Competency I • BED 431 Teaching Competency II • BED 421 General Pedagogy • BED 531 Teaching Competency III • BED 541 ICT(Web) • BED 631 Teaching Competency IV • BED 621 Pedagogy of Physical Sciences • BED 622 Pedagogy of Chemical Sciences • BED 623 Pedagogy of Mathematical Sciences • BED 624 Pedagogy of Biological Sciences • BED 731 Teaching Competency V

Sr. No.	Components	Competences	Papers codes covering the competences
		Ability to use Variety of Assessment Tools for both Formative and Summative Assessment(S)	• BED 511 Assessment & Evaluation in Education
		Ability to research	• BED 611 Basic Research
3.	Social	Ability to work independently in a professional manner(G)	• BED 601 Creative and Critical Thinking • BED 842 Entrepreneurship
		Adhere to ethical Principles(G)	• BED 421 General Pedagogy • BED 611 Basic Research
		Practice Professionalism (G)	• BED 421 General Pedagogy • BED 532 Understanding Self
		Facilitate Students participation in co-curricular Activities	• BED 631 Teaching Competency IV • BED 731 Teaching Competency V • BED 841 Language & Communication
		Appreciate and Respect Diversity & Multiculturalism(G)	• BED 421 General Pedagogy • BED 701 Inclusive Education • BED 741 Theatre, Arts Heritage, Tradition
		Expose the Students to international / global trends(S)	• BED 701 Inclusive Education • BED 731 Teaching Competency V

Course Code	Learning outcome (at course level) Students … / Course Name	Learning and Teaching Strategies	Assessment Strategies	
Semester I				
BED111	Understanding of Education and its Perspectives	1. Enlist and elaborates aim, objectives and functions of education 2. Draw inference from educational policy of India 3. Demonstrate competencies and acquire communication skills 4. Defend and criticize philosophical and sociological perspective of education	1. One Exploratory Session 2. Two Seminar 3. One Workshop 4. Two Brainstorming session	1. Paper pencil test 2. Tutorial 3. Project 4. Report writing
BED101	English- I	1. Acquire the proficiency in language 2. Develop the aesthetics sense of the English literatura	1. Reading and study 2. Analysis of literary documents	1. Oral Presentation 2. Project Based Learning
BED141	Indian Constitution & Human Rights	1. Define and enlist the nature and core values of constitution. 2. Develop awareness and respect for Indian constitution. 3. Outline and explain constitution provision regarding human rights 4. Relate and appreciate history of development of human rights.	1. Group Discussion 2. Elocution 3. Round table 4. Data base searches	1. Rubrics 2. Rating scale 3. Report writing 4. Tutorial
Semester II				
BED202	German I	1. Acquire the proficiency in language 2. Understand the various level of German languages	1. Reading and study 2. Analysis of literary documents	1. Oral Presentation 2. Project Based Learning

Course Code	Learning outcome (at course level) Students … Course Name	Learning and Teaching Strategies	Assessment Strategies	
BED241	ICT for Teaching learning- I	1. Explain the meaning and nature of ICT 2. Identify the use of ICT according to learning theories 3. Use the concept of technologies in different situations 4. Acquire different types of resources while teaching & learning.	1. Laboratory 2. Demonstration and Practical 3. Guided Personal work 4. Practical	1. Report Presentation 2. Observation 3. Reflection on practices 4. Observation rubrics
Semester III				
BED301	English - II	1. Acquire the proficiency in language 2. Develop the aesthetics sense of the English literatura	1. Reading and study 2. Analysis of literary documents	1. Oral Presentation 2. Project Based Learning
BED341	ICT for Teaching learning II	1. Use the concept of multimedia according to learning situations. 2. Identify different types of e- content and e- resources. 3. Understand the use of technology supported learning situations.	1. Workshop 2. Online learning 3. Guided personal work	1. Practical 2. Online assignment 3. Presentation of Report
BED331	Teaching Competency I	1. Write induction 2. Explain different stimulus variation 3. Compose different types of question 4. Use demonstration method 5. Explain narration subject topic 6. Write black board carefully, recommend reading	1. Model presentation of lesson. 2. Demonstration method 3. Workshop	1. Presentation of work in group 2. Observation skills 3. Practical work 4. Hands on experience

Course Code	Learning outcome (at course level) Students … / Course Name	Learning and Teaching Strategies	Assessment Strategies	
Semester IV				
BED411	Childhood & Growing Up	1. Explain the growth and development of the learner and discuss its importance in the teaching learning process with special reference to adolescent stage 2. Identify the individual differences among learners 3. Describe political, social and cultural dimension along growing up. 4. Elaborate the impact of mass communication media on childhood and growing up	1. Panel Discussion 2. Comparative studies 3. Reading and analysis of the document. Seminar	1. Report 2. Preparation and Presentation of Report 3. Preparation of Report Report
BED431	Teaching Competency II	1. Acquire team teaching skills in practices teaching 2. Understand and apply models of teaching in practices teaching	1. Guided personal work 2. Demonstration	1. Observation 2. Observation and reflection
BED421	General Pedagogy	1. Acquire the skills of methods, models, maxims etc. 2. Apply the skills in the practices lesson.	1. Guided personal work 2. Demonstration	1. Observation 2. Observation and reflection
Semester V				
BED 501	Environmental Education	1. Create awareness about environmental changes 2. Acquire knowledge regarding protect and improve environment.	1. Exploratory method 2. Field visits and case studies	1. Tutorial and paper pencil test 2. Work diary
BED511	Assessment & Evaluation in Education	1. Understand the concept of Assessment & Evaluation 2. Understand cognitive, affective, conative domain's assessment for Learning 3. Construct assessment tools, and its implementation, interpretation of data, reporting of student's performance	1. Lecture 2. Lecture cum demonstration 3. Workshop	1. Paper pencil 2. Tutorial 3. Report writing

Course Code	Learning outcome (at course level) Students ...	Learning and Teaching Strategies	Assessment Strategies	
	Course Name			
BED512	Psychology of Leaner & Learning Theory-I	1. Understand the concept of learning 2. Describe different method and learning 3. Develop idea of learning as construction of knowledge 4. Discover and distinguish different theories of learning	1. Lecture 2. Debate and Discussion 3. Workshop 4. Elaboration and Comparative studies	1. Paper pencil 2. Report on Reflection 3. Report 4. Presentation of exploratory report
BED531	Teaching Competency III	1. Acquire teaching skills in school classroom 2. Understand and apply teaching skills in school classroom	1. Practical Work 2. Demonstration	1. Observation and Reflection on practice 2. Observation and reflection
BED532	Understanding Self	1. Develop an understanding of self as a person 2. Develop an understanding of self as a teacher 3. Engage himself/herself in continuous self-reflection 4. Get a holistic understanding about himself/herself 5. Become an integrated personality	1. Lecture 2. Lecture cum discussion 3. Guided Personal analytic work 4. Guided Personal analytic work 5. Synthesis of competence	1. Paper pencil test 2. Paper pencil test 3. Reflection on self 4. Reflection on self 5. Report on Synthesis
BED541	ICT(Web)	1. Explain the concept of web 2. Use collaborative learning task while taking demo lesson 3. Deploy ICT in interactive mode.	1. Demonstration cum discussion 2. Cooperative Learning methodology 3. Laboratory Work	1. Presentation of work 2. Observation 3. Practical Report- Journal
Semester VI				
BED612	Psychology of Learner & Learning Theory-II	1. Explain the theories of learning and constructivism 2. Adopt the idea of learning as construction of knowledge 3. Identify the educational needs of diverse learners	1. One Exploratory Session 2. Group discussion 3. Inquiry learning 4. Discovery learning 5. Brainstorming session	1. Paper pencil test 2. Tutorial 3. Project 4. Report writing 5. Group Discussion 6. Quiz

Course Code	Learning outcome (at course level) Students …	Learning and Teaching Strategies	Assessment Strategies	
	Course Name			
BED621	Pedagogy of Physical Sciences	1. Preservice teacher adequate the study of curriculum of physical science. 2. Understand the Meaning and writing of Learning objectives. 3. Adopt suitable method approaches of teaching science. 4. Understand and study the scientific attitude 5. Understand the Meaning and principles curriculum. 6. Develop an understanding of different methods and techniques of teaching physical science.	1. Question answer Method 2. Lecture 3. Discussion 4. Problem solving 5. Group work 6. Explanation	1. Oral test 2. Tutorial 3. Group discussion 4. Paper pencil test 5. Poster presentation 6. Mind Map
BED622	Pedagogy of Chemical Sciences	1. Define modern Concepts in physical Chemistry Viz. Thermochemistry, Enthalpy, Bond Energy 1. Classify and compute various forms of energies 2. Compare Exergonic & Endergonic reactions, strong moderate weak electrolytes. 3. Apply the response of Equilibria to various conditions, soluSolubility product principal to compute degree of dissociation. 4. Estimate hydrolysis and pH for different salts 5. Discuss Applications of solubility and solubility products	1. Use of Power Point Presentation 2. Discussion 3. Explanation 4. Problem solving 5. Group work 6. Problem identification, finding out the solution, application of knowledge 7. Cooperative learning	1. Assignment 2. Group discussion (Rubric) 3. Paper –pencil test 4. Worksheet 5. Poster presentation 6. Oral test 7. MCQs

Course Code	Learning outcome (at course level) Students ... Course Name	Learning and Teaching Strategies	Assessment Strategies	
BED623	Pedagogy of Mathematical Sciences	1. Explain aim and objectives of teaching mathematics 2. Define Instructional Objectives 3. Describe writing instructional objectives according to the blooms modified taxonomy of educational objectives with reference to Secondary School Syllabus 4. Correlate the mathematics with other subject. 5. Develop the value in present context utilitarian, disciplinary, cultural, social,moral, vocational, aesthetic and recreational values 6. Explain Nature, scope and characteristics of mathematics	1. Explanation 2. Group Discussion 3. Chart presentation 4. power point presentation 5. visualization 6. Participate and discuss 7. Observe, modify and re-modified 8. Teamwork 9. Cooperative learning	1. Paper pencil test 2. Tutorial 3. Assignments 4. Seminar 5. Open book test
BED641	E-learning & Educational Development	1. Understand the Use of ICT for inclusive classroom 2. create educational material by using E-learning for educational materials	1. Demonstration cum discussion 2. Cooperative Learning methodology 3. Laboratory Work	1. Presentation of work 2. Observation 3. Practical Report- Journal
BED631	Teaching Competency IV	1. Acquire the teaching of experienced school teachers. 2. Develop lesson plan under the guidance of the school teachers 3. Realize the co-curricular and extracurricular activities organized in the school 4. Assist the school teachers in her/his day to day work.	1. Model presentation of lesson. 2. Demonstration method 3. Workshop	1. Presentation of work in group 2. Observation skills 3. Practical work 4. Hands on experience

Course Code	Learning outcome (at course level) Students … / Course Name	Learning and Teaching Strategies	Assessment Strategies	
Semester VII				
BED701	Inclusive Education	1. Explain the concept of Inclusive education. 2. Identify types of disability and instruction strategies		
BED731	Teaching Competency V	1. Develop lesson plan and conduct lesson. 2. Plan of evaluation. 3. Acquire the information records maintain by the school 4. Conduct organization of co –curricular /extracurricular activities. 5. Observe peer while conducting lectures. 6. Observe other school activities/program.	1. Model presentation of lesson. 2. Demonstration method 3. Workshop	1. Presentation of work in group 2. Observation skills 3. Practical work 4. Hands on experience
BED741	Theatre, Arts Heritage, Tradition	1. Explain the basic characteristic of different techniques medium and its practical applications. 2. Develop required aesthetic skills for required activates.	1. Performance 2. Practices. 3. Learning by doing 4. Hands on Experience	1. Group Performance 2. Curricular and Extra Curricular activity
Semester VIII				
BED801	Guidance & Counselling	1. Acquire the guidance in school. 2. Acquire the counseling in school.	1. Lecture 2. Lecture cum discussion 3. Guided Personal analytic work 4. Guided Personal analytic work 5. Synthesis of competence	1. Paper pencil test 2. Paper pencil test 3. Reflection on self 4. Reflection on self 5. Report on Synthesis

Course Code	Learning outcome (at course level) Students ...	Learning and Teaching Strategies	Assessment Strategies	
	Course Name			
BED811	Secondary Education	1. Adequate the secondary education policy and planning. 2. Adequate development of secondary education	1. Lecture 2. Discussion 3. Exploratory learning 4. Self-regulated learning 5. Critical thinking	1. Assignment 2. Presentation
BED812	Curriculum Development	1. Explains meaning and concept of curriculum 2. Explain the process of curriculum development	1. Discussion 2. Lecture 3. Inductive deductive 4. Critical thinking 5. Analytical reasoning	1. Assignment 2. Presentation
BED813	Quality & Management of Secondary Education	1. Adequate management in secondary education 2. Describe quality management in secondary education	1. Lecture 2. Discussion 3. Exploratory learning 4. Self-regulated learning 5. Critical thinking	1. Assignment 2. Presentation
BED842	Entrepreneurship	1. Acquire basics of entrepreneurship. 2. Explain the characteristics of Entrepreneurship 3. Understand development of entrepreneurial ventures in education 4. Acquire the concept of entrepreneurship	1. Lecture and discussion method 2. Presentation and discussion method 3. Project 4. Lecture 5. Inductive reasoning 6. Deductive reasoning	1. Presentation 2. Project work

Structure of the programme: units/courses/modules with their learning outcomes and learning, teaching and assessment strategies

Length of the programme and student workload

- Length of the programme: 4 years/8 semesters/48 months/ 208 weeks.
- 1 Credit is for 30 hours, 15 contact hours in the classroom and 15 independent hours of the student (Home Hours)
- The number of hours for each unit and course is already indicated in the detailed prescribed syllabi.

Number of hours for each course is given hereunder:

Course		Type of Paper	Contact Hours		Credits	Proposed Home hours	Total Workload (Hrs)	ECTS Credits (1 Credit= 30 Hrs)
Sr. No.	Paper Code and Paper Title		Per Semester	Per Week				
B.Sc. B.Ed. (Integrated) (Year I) (Semester I) New Pattern 2019-20								
1.	BED111 Understanding of Education and its Perspectives	Theory	15	01	01	15	30	1
1.	BED141 Indian constitution & human rights	Theory	15	01	01	15	30	1
B.Sc. B.Ed. (Integrated) (Year I) (Semester II)								
2.	BED241 ICT for teaching & learning I	Practical	15	01	01	15	30	1
3.	BED242 Yoga I	Practical	15	01	01	15	30	1

Course		Type of Paper	Contact Hours		Credits	Proposed Home hours	Total Workload (Hrs)	ECTS Credits (1 Credit= 30 Hrs)
Sr. No.	Paper Code and Paper Title		Per Semester	Per Week				
B.Sc. B.Ed. (Integrated) (Year II) (Semester III)								
4.	BED341 ICT for teaching and learning II	Practical	15	01	01	15	30	1
5.	BED 342 Yoga II	Theory	30	02	02	30	60	2
6.	BED331 Teaching Competency I	Practical	15	01	01	15	30	1
B.Sc. B.Ed. (Integrated) (Year II) (Semester IV)								
7.	BED411 Childhood & Growing Up	Theory	30	02	02	30	60	2
8.	BED421 General Pedagogy	Theory	30	02	02	30	60	2
9.	BED431 Competency II	Practical	30	02	02	30	60	2
10.	BED442 Yoga III	Practical	15	01	01	15	30	1
B.Sc. B.Ed. (Integrated) (Year III) (Semester V)								
11.	BED501 Environmental Education	Theory	30	02	02	30	60	2
12.	BED511 Assessment & Evaluation In Education	Theory	30	02	02	30	60	2
13.	BED512 Psychology Of Leaner & Learning Theories I	Theory	30	02	02	30	60	2
14.	BED531 Teaching Competency III	Practical	60	04	04	60	120	4
15.	BED532 Understanding Self	Practical	30	02	02	30	60	2
16.	BED541 ICT(WEB)	Practical	15	01	01	15	30	1

Course		Type of Paper	Contact Hours		Credits	Proposed Home hours	Total Workload (Hrs)	ECTS Credits (1 Credit= 30 Hrs)
Sr. No.	Paper Code and Paper Title		Per Semester	Per Week				
B.Sc. B.Ed. (Integrated) T.YB.Sc.B.Ed. (Year III) (Semester VI)								
17.	BED601 Creative & Critical Thinking	Theory	30	02	02	30	60	2
18.	BED611 Basic Research	Theory	30	02	02	30	60	2
19.	BED612 Psychology of Learner & Learning Theory II	Theory	30	02	02	30	60	2
20.	BED621 Pedagogy of Physical Sciences	Theory	60	04	04	60	120	4
21.	BED622 Pedagogy of Chemical Science	Theory	60	04	04	60	120	4
22.	BED623 Pedagogy of Mathematical Sciences	Theory	60	04	04	60	120	4
23.	BED Pedagogy of Biological Science	Theory	60	04	04	60	120	4
24.	BED 631 Teaching Competency IV	Practical	60	04	04	60	120	4
25.	BED641 E-Learning & Educational Development	Practical	15	01	01	15	30	1
B.Sc. B.Ed. (Integrated) B.Sc.B.Ed. (Year IV) (Semester VII)								
26.	BED701 Inclusive Education	Theory	30	02	02	30	60	2
27.	BED741 Theatre, Arts Heritage, Tradition	Practical	30	02	02	30	60	2
28.	BED731 Teaching Competency V	Practical	120	08	08	120	240	8

Course		Type of Paper	Contact Hours		Credits	Proposed Home hours	Total Workload (Hrs)	ECTS Credits (1 Credit= 30 Hrs)
Sr. No.	Paper Code and Paper Title		Per Semester	Per Week				
B.Sc. B.Ed. (Integrated) B.Sc.B.Ed. (Year IV) (Semester VIII)								
29.	BED801 Guidance & Counselling	Theory	30	02	02	30	60	2
30.	BED811 Secondary Education	Theory	30	02	02	30	60	2
31.	BED812 Curriculum Development	Theory	30	02	02	30	60	2
32.	BED813 Quality & Management of Secondary Education	Theory	30	02	02	30	60	2
33.	BED841 Language & Communication	Theory	30	02	02	30	60	2
34.	BED842 Entrepreneurship	Practical	30	02	02	30	60	2

Overall consistency of the programme

Year	Semester	Course	Course Title	Competences Covered
1	1.	BED111	Understanding of Education and its Perspectives	C1.
		BED101	English- I	C1
		BED141	Indian constitution & human rights	C10
	2.	BED 202	German I	C1
		BED241	ICT for teaching & learning I	C1
		BED242	Yoga I	C3
2	3.	BED 301	English –II	C1
		BED331	Teaching Competency	C1
		BED341	ICT for teaching and learning II	C1, C6
		BED 342	Yoga II	C1, C3
	4	BED411	Childhood & Growing Up	C2, C3
		BED421	General Pedagogy	C1, C6, C7, C8, C11, C14
		BED431	Competency II	C1
		BED442	Yoga III	C3
3	5	EDU501	Environmental Education	C2
		BED511	Assessment & Evaluation in Education	C7, C8
		BED512	Psychology of Leaner & Learning Theories I	C3
		BED531	Teaching Competency III	C1, C6
		BED532	Understanding Self	C3, C12
		BED541	ICT(WEB)	C1
	6	BED601	Creative & Critical Thinking	C3
		BED611	Basic Research	C7, C8,C11
		BED612	Psychology of Learner & Learning Theory II	C3
		BED621	Pedagogy of Physical Sciences	C1, C6
		BED622	Pedagogy of Chemical Science	C1, C6
		BED623	Pedagogy of Mathematical Sciences	C1, C6
		BED624	Pedagogy of Biological Sciences	C1, C2
		BED 631	Teaching Competency IV	C1, C6, C7
		BED641	E-Learning & Educational Development	C1

Year	Semester	Course	Course Title	Competences Covered
4	7	BED701	Inclusive Education	C3, C14, C15
		BED731	Teaching Competency V	C1, C6, C7, C8, C10, C12, C13, C15.
		BED741	Theatre, Arts Heritage, Tradition	C3, C13
	8	BED801	Guidance & Counselling	C2, C3
		BED811	Secondary Education	C4
		BED812	Curriculum Development	C4
		BED813	Quality & Management of Secondary Education	C4, C5
		BED841	Language & Communication	C2, C13
		BED842	Entrepreneurship	C2, C3, C4, C9

Internal Quality Control/Enhancement

The Department of Education and Extension is the department under School of Education in Savitribai Phule Pune University. Instead of Department system, now Savitribai Phule Pune University has adapted school system. Therefore, School of Education has Internal Quality Assurance Cell (IQAC). In IQAC, Director of School is Chairman and all heads of the department are members of the IQAC. The feedback mechanism is prepared by the IQAC. Every year we will have get feedback from all the stakeholders of the department like students, parents, teachers, employers and recruiters. The analysis will put in the School meeting and according to department all the feedback analysis will send to HOD and who will put it in the departmental committee (DC).

Departmental Committee will take necessary action on the analysis of the collected feedback. Whatever suggestion will come in front of the faculty, we will make action democratically. Because we have departmental committee (DC), in DC, we will have academic discussion and unanimously decision is taken and implemented in the field. The unit level and programme level quality control procedures will be coordinated through the assessment and evaluation of the programme based on PLO and CLO.

Other Relevant Aspects

The Curricula of B.Sc. B.Ed. programme offered by the University is structured and designed as per the guidelines of National Curriculum Framework for Teacher Education-2010 (NCFTE-2010) and National Council for Teacher Education, New Delhi. Every Four Year the department of education and extension of the university gets the curricula of the courses approved by the Board of Studies (BOS) in Education which is further approved by the Academic Council and finally by the Management Council. Besides, the course coordinator wants to make changes any time in their courses, who can prepare note and present in the School Committee and gets approval for further action.

The IIS University, Jaipur

2. It is one of the implementing universities. For Tuning India Project it has selected B.Sc B.Ed. Bachelor of Science Bachelor of Education**.** It has done modifications in its curriculum to achieved the selected competences The basic purpose of this programme is to produce competent and skilled Science and Mathematics teachers to teach students at Secondary level. The programme has been redesigned to produce teachers to meet the shortage of staff/workforce and the additional requirement generated after the implementation of the Right to Education Act-2009. The need is also justified looking to the dearth of women school teachers in the state and also the ones catering to Central Board of Secondary Education (CBSE) or Council for the Indian School Certificate Examination (CISCE) board English medium schools.

   With the increasing number of Schools in Jaipur, offering various programmes of International Baccalaureate (IB) and Cambridge International Examinations (CIE), there is a need for teachers who can teach as per international curricula.During the bridging activity of the Tuning India Project, it has been observed that most of the competences in the meta profile are bridged with existing curricula of B.Sc. B.Ed. programme and only one competence (Demonstrate Leadership Qualities) is not being completely covered. To address this gap and ensure that the B.Sc.B.Ed. programme of the IIS University delivers students all the core teacher metaprofile competences, the existing curricula of B.Sc. B.Ed. programme has been revised

The eligibility condition for this course is as following:Any girl student who has qualified Senior Secondary Examination with minimum of two subjects from the following is eligible to get admission in B.Sc.B.Ed. programme:-Physics, Chemistry, Biology and Mathematics.A candidate must have secured minimum of 55% marks in the Senior Secondary level.

Future fields, sectors of employment/occupation of graduates

B.Sc. B.Ed. is a job oriented teacher training programme. After successful completion of this programme a student can have access to a variety of job options in the government and private sectors of employment and can also pursue higher education.

Some of the potential fields, sectors of employment/ occupations related to this programme are as follow:

- Teacher- Science or Mathematics teacher in Government or Private Schools at secondary level.
- Education Officer- serving in the education department of state or central government.
- Educational Consultant- providing consultancy services as a freelancer or in a NGO working in the field of education.
- Educational Administrator and Manager-providing services in a public school to manage and organize the school set up.
- Educational Counsellor- providing career counselling and personal guidance to the students of a school and related freelance work.
- Educational Author- writing text books and reference books for school students.

Higher Education Options

- Master of Science (M.Sc.) in Physics/Chemistry/Mathematics/ Botany/ Zoology.
- Master of Education (M.Ed.)
- Master of Arts in Education (M.A.)

Link of the competences with the agreed meta-profile:-

In the bridging exercise it is noted that all sixteen competences are addressed in the university's existing curricula. However, in order to strengthen competence 4 (DEMONSTRATE LEADERSHIP QUALITIES) a new theory paper entitled "School leadership and management" has been introduced in semester VII. Competences being covered by different courses are presented hereunder

S. No.	Competences	Course codes covering the competences
1	Have mastery over the subject(s) they will be teaching (C1)	EDU 501, 601, 701, 801
2	Involve parents in child's education (C2)	EDU 101, 201, 303, 403, 805, ERE 700A, 700B
3	Be a reflective Practitioner (C3)	EDU 101, 201, 303, 402, 403, 802, 806, 808A, 808C, ERE 700A, 700B
4	Demonstrate leadership qualities (C4)	EDU 303, 403, 502, 602A, 703, 709, 809A, ERE 700B
5	Ability to manage crises effectively (C5)	EDU 201, 303, 403, 502, 602A, 703, 709, 809A, ERE 700B
6	Prepare lesson plans (& execute them effectively) (C6)	EDU 501, 502, 601, 602A, 602B, 701, 709, 801, 809A, 809B
7	Ability to use a variety of assessment tools for both formative and summative assessment (C7)	EDU 401, 404, 502, 601, 602A, 704, 709, 801, 804, 808C, 809A
8	Ability to do research (C8)	EDU 403, 709, 802
9	Ability to use local & regional language (C9)	EDU 705, 706, 708, 807

S. No.	Competences	Course codes covering the competences
10	Ability to work independently in a professional manner (C10)	EDU 303, 402, 403, 502, 602A, 709, 809A
11	Adhere to ethical principles (C11)	EDU 101, 201, 301, 806
12	Practice professionalism (C12)	EDU 302, 502, 602A, 702, 705, 706, 708, 709, 803, 807, 808B, 808C, 809A
13	Facilitate students' participation in co-curricular activities (C13)	EDU 303, 403, 601, 801, 807, ERE 700B
14	Appreciate and respect diversity & multiculturalism (C14)	EDU 101, 707, 805
15	Expose the students to international/global trends (C15)	EDU 401, 402, 601, 704, 801, 804
16	Expose the students to regional/local needs (C16)	EDU 502, 602A, 709, 809A, ERE 700B

Structure of the programme: Units/Courses/modules with their learning outcomes and learning, teaching and assessment strategies

Course		Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
Course Code	Course Title			
EDU-101	Contemporary India & Education-I	Students: 1. Analyze the educational Philosophy of Indian thinkers. 2. Compare the recommendations of different educational commissions. 3. Justify the implementation of value education in modern scenario.	**Teaching strategies:** Interactive Lectures, Discussion **Learning strategies:** Self-learning assignments, Seminar Presentation.	**Formative Assessment (30%):** Class tests, Quiz, Presentations, Hand-written Assignments **Summative Assessment (70%):** Written examination-objective, short answer type and essay type questions

Course		Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
Course Code	Course Title			
EDU-201	Contemporary India & Education-II	Students: 1. Assess the different programmes of education run by the government and produce report on it. 2. Analyze the ideas of western educational thinkers. 3. Identify social issues and challenges at different level of education. 4. Compare the instructional strategies of different visionary school.	**Teaching strategies:** Interactive Lectures, Discussion **Learning strategies:** Self-learning assignments, Seminar Presentation.	**Formative Assessment (30%):** Class tests, Quiz, Presentations, Hand-written Assignments **Summative Assessment (70%):** Written examination-objective, short answer type and essay type questions
EDU-301	Environmental Education	Students: 1. Organize local surveys related to various environmental issues. 2. Create environmental awareness through different mode of education. 3. Analyze the role of different agencies in protection of environment.	**Teaching strategies:** Interactive Lectures, Project, Field trip **Learning strategies:** Self-learning assignments, Field observation, Report writing	**Formative Assessment (30%):** Class tests, Report writing and presentation, Hand written Assignments **Summative Assessment (70%):** Written examination-objective, short answer type and essay type questions
EDU-302	Learning & Teaching - I	Students: 1. Identify and use different teaching skills for effective teaching learning process. 2. Develop effective instructional strategies to enhance learning. 3. Establish and maintain the positive classroom learning.	**Teaching strategies:** Interactive Lectures, Concept map, Explanation **Learning strategies:** Self-learning assignments, Handouts, learning by practice.	**Formative Assessment (30%):** Class tests, power point Presentation, Hand written Assignments **Summative Assessment (70%):** Written examination-objective, short answer type and essay type questions

Course		Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
Course Code	Course Title			
EDU-303	Open Air & SUPW- I	Students: 1. Develop the dignity of labor. 2. Conduct different field surveys to assess literacy level of the community. 3. Plan social and environmental awareness programmes to create awareness among learners.	**Teaching strategies:** Activity, Action Research, Project, Field Trip **Learning strategies:** Report writing, Experiential learning	**Formative Assessment (30%):** Written Report, Presentation, Observation **Summative Assessment (70%):** Report Presentation, Observation, Portfolio Assessment
EDU-401	Critical Understanding of ICT	Students: 1. Implement the knowledge of computer in teaching learning process.	**Teaching strategies:** Lecture cum demonstration, Tutorial, Illustration. **Learning strategies:** Self-learning assignments, Learning by Practice.	**Formative Assessment (30%):** Class tests, Hand written Assignment, power point Presentation, Worksheets **Summative Assessment (70%):** Written examination-objective, short answer type and essay type questions
EDU-402	Learning & Teaching - II	Students: 1. Organize teaching learning activities in diverse classroom situation. 2. Identify and apply different teaching models in the classroom teaching.	**Teaching strategies:** Interactive lecture, Explanation. **Learning strategies:** Self-learning assignments, Discussion.	**Formative Assessment (30%):** Class tests, Hand written assignment, Quiz **Summative Assessment (70%):** Written examination-objective, short answer type and essay type questions
EDU-403	Open Air & SUPW- II	Students: 1. Conduct the Action Research related to community problems. 2. Organize various awareness programmes in the society.	**Teaching strategies:** Activity, Action Research, Project, Field Trip **Learning strategies:** Report writing, Experiential learning	**Formative Assessment (30%):** Report Presentation, Observation **Summative Assessment (70%):** Report Presentation, Observation, Portfolio assessment

Course		Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
Course Code	Course Title			
EDU-404	Computer Practical	Students: 1. Develop skill in using windows and its application in teaching learning process. 2. Analyze the data pertaining to school record.	**Teaching strategies:** Laboratory, Project, Tutorial. **Learning strategies:** Lab practical, Self learning assignment, Learning by practice,	**Formative Assessment (30%):** Report Presentation, Observation **Summative Assessment (70%):** laboratory practical, viva-voce
EDU-501	Pedagogy of School Subject A. Physics - I B. Chemistry - I C. Mathematics - I D. Biology - I E. General Science - I	Students: 1. Select and use an appropriate teaching method, approach and device for promoting effective teaching and learning.	**Teaching strategies:** Interactive Lecture, Discussion **Learning strategies:** Self-learning Assignments, Mind mapping	**Formative Assessment (30%):** Class tests, Hand written assignment, Quiz, Power point presentation **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-502	School Internship - I	Students: 1. Organize classroom teaching, various school activities and gain an experience of the multiple roles of a teacher.	**Teaching strategies:** Presentation, Simulation **Learning strategies:** Presentation in simulated conditions, Experiential learning, Peer practice	**Formative Assessment (30%):** Simulation, Peer review, Observation, Rubrics **Summative Assessment (70%):** Report Presentation, Portfolio assessment, Observation
EDU-601	Pedagogy of school subject A. Physics II B. Chemistry II C. Mathematics II D. Biology II E. General Science II	Students: 1. Make use of instructional support system in teaching learning process. 2. Construct, apply and administer achievement tests for evaluation of learning outcomes. 3. Organize co-curricular activities to develop scientific attitude among the learners.	**Teaching strategies:** Interactive Lecture, Explanation, Tutorial **Learning strategies:** Self-learning Assignments, Learning by practice, Handouts	**Formative Assessment (30%):** Class tests, Hand written Assignment, Quiz, Power point presentation **Summative Assessment (70%):** Written examination-objective, short answer type and essay type questions

Course		Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
Course Code	Course Title			
EDU-602 A	School Internship II	Students: 1. Organize classroom teaching, various school activities and gain an experience of the multiple roles of a teacher.	**Teaching strategies:** Presentation, Simulation **Learning strategies:** Presentation in simulated conditions, Experiential learning, Peer practice	**Formative Assessment (30%):** Presentation in Simulated conditions, Peer review, Observation **Summative Assessment (70%):** Report Presentation, Observation& Portfolio assessment
EDU-602 B	Final Lesson-I	Students: 1. Construct and deliver the lesson plan effectively in the real class room situation.	**Teaching strategies:** Tutorial **Learning strategies:** Self-learning Assignments, Learning by practice	**Summative Assessment (100%):** Teaching in real classroom situation and Observation made by external examiner
EDU-700 A	NaiTalim Through Rural Engagement	Students: 1. Develop an intellectual understanding of the local civic engagement sphere.	**Teaching strategies:** Interactive Lecture, Discussion **Learning strategies:** Self-learning Assignments, Peer group discussion, Handouts	**Formative Assessment (30%):** Class tests, Creative Assignment, Quiz, Discussion **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-700 B	Practicum - Rural Engagement	Students: 1. Organize various activities concerning social and environmental issues. 2. Train to move closer to rural life.	**Teaching strategies:** Activity, Action Research, Project, Field Trip **Learning strategies:** Report writing, Experiential learning	**Formative Assessment (30%):** Report Presentation, Observation **Summative Assessment (70%):** Report Presentation, Observation, Portfolio assessment

Course		Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
Course Code	Course Title			
EDU-701	Pedagogy of School Subject A. Physics-I B. Chemistry- I C. Mathematics- I D. Biology- I E. General Science- I	Students: 1. Select and use an appropriate teaching method, approach and device for promoting effective teaching and learning.	**Teaching strategies:** Interactive Lecture, Discussion **Learning strategies:** Self-learning Assignments, Mind mapping	**Formative Assessment (30%):** Class test, Creative Assignment, Quiz, Power point presentation **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-702	Childhood & Growing up-I	Students: 1. Develop an understanding of basic concepts, methods and principles of psychology. 2. Analyze the interdependence of cognitive, social, physical, emotional & moral domains of human development.	**Teaching strategies:** Interactive lectures, Discussion **Learning strategies:** Self-learning assignments, seminar	**Formative Assessment (30%):** Class tests, Hand written Assignment, Report presentation **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-703	School Leadership and Management	Students: 1. Develop skills to provide & manage various school resources and school record. 2. Generate strategies of conflict management. 3. Demonstrate ability to lead the group activities and motivate the actions of others.	**Teaching strategies:** Interactive Lectures, Discussion, Tutorials, Activity **Learning strategies:** Self-learning assignments, report writing	**Formative Assessment (30%):** Class tests, Hand written Assignment, Group Discussion, Report presentation **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-704	Assessment for Learning-I	Students: 1. Comprehend the concept and process of assessment for learning. 2. Critically analyze the applicability of different assessment practices in present education system.	**Teaching strategies:** Interactive Lectures, Discussion **Learning strategies:** Self-learning assignments, Debate	**Formative Assessment (30%):** Class tests, Hand written Assignment, Quiz **Summative Assessment (70%):** Written examination-objective, short type and essay type questions

Course		Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
Course Code	Course Title			
EDU-705	Language Across the Curriculum	Students: 1. Develop sensitivity to language diversity in multilingual society. 2. Adapt an appropriate language skill in the classroom situation.	**Teaching strategies:** Explanation, Discussion, Illustration **Learning strategies:** Self-learning Assignments, Co-operative learning	**Formative Assessment (30%):** Class tests, Hand written Assignment, Worksheet **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-706	Understanding Disciplines & Subjects	Students: 1. Develop an understanding of the nature of disciplinary knowledge. 2. Acquire a conceptual understanding of the impact of school subjects on discipline.	**Teaching strategies:** Team teaching, Discussion, Illustration with example **Learning strategies:** Peer instruction, Group discussion	**Formative Assessment (30%):** Class tests, Hand written Assignment, Worksheets **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-707	Creating an Inclusive School	Students: 1. Select an appropriate pedagogical strategy for inclusive classroom. 2. Demonstrate knowledge of different perspectives in the area of education for children with special needs.	**Teaching strategies:** Interactive Lectures, Discussion, Activity **Learning strategies:** Self-learning assignments, Debate, Report writing	**Formative Assessment (30%):** Class tests, Report presentation, Hand written Assignment **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-708	Reading & Reflecting on the Texts	Students: 1. Demonstrate strategies of reading and reflecting on the ideas expressed in texts.	**Teaching strategies:** Explanation, Discussion, Illustration **Learning strategies:** Self-learning Assignments, co-operative learning,	**Formative Assessment (30%):** Class tests, Creative Assignment, Handouts **Summative Assessment (70%):** Written examination-objective, short type and essay type questions

Course		Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
Course Code	Course Title			
EDU-709	School Internship III	Students: 1. Organize classroom teaching, various school activities and gain an experience of the multiple roles of a teacher.	**Teaching strategies:** Presentation, Simulation **Learning strategies:** Presentation in simulated conditions, Experiential learning, Peer practice	**Formative Assessment (30%):** Simulation, Peer Reviews, Observation on Rubrics **Summative Assessment (70%):** Report Presentation, Observation, Portfolio assessment
EDU-801	Pedagogy of School Subject A. Physics - II B. Chemistry - II C. Mathematics - II D. Biology - II E. General Science - II	Students: 1. Make use of instructional support system in teaching learning process. 2. Construct, apply and administer achievement tests for evaluation of learning outcomes. 3. Organize co-curricular activities to develop scientific attitude among the learners.	**Teaching strategies:** Interactive Lecture, Explanation, Tutorial **Learning strategies:** Self-learning Assignments, Learning by practice, Handouts	**Formative Assessment (30%):** Class test, Creative Assignment, Quiz, Power point presentation **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-802	Childhood & Growing up-II	Students: 1. Critically examine the theories of learning in school environment. 2. Interpret various psychological attribute of an individual.	**Teaching strategies:** Interactive Lecture, Explanation **Learning strategies:** Self-learning Assignments, Handouts	**Formative Assessment (30%):** Class test, Assignment, Power point presentation **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-803	Knowledge & Curriculum	Students: 1. Examine the different facts of knowledge. 2. Justify the role of teacher in knowledge construction.	**Teaching strategies:** Interactive Lectures, Discussion, Activity **Learning strategies:** Self-learning assignments, Report writing	**Formative Assessment (30%):** Class test, Assignment, Power point presentation **Summative Assessment (70%):** Written examination-objective, short type and essay type questions

Course		Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
Course Code	Course Title			
EDU-804	Assessment for Learning- II	Students: 1. Develop skills necessary to use different tools and techniques of evaluation. 2. Select appropriate statistical measures to assess the learning.	**Teaching strategies:** Interactive Lectures, Discussion, Illustration **Learning strategies:** Self-learning assignments, learning by practice	**Formative Assessment (30%):** Class tests, Mind mapping, Worksheet **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-805	Gender, School & Society	Students: 1. Analyze the equity & equality in relation with caste, class, religion, ethnicity, disability & regional disparity. 2. Identify different ways to solve the problem of discrimination.	**Teaching strategies:** Interactive Lectures, Discussion, Case study **Learning strategies:** Self-learning assignments, Survey	**Formative Assessment (30%):** Class tests, Hand written Assignment, Debate **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-806	Understanding the Self	Students: 1. Judge as a reflective practitioner. 2. Build resilience within to deal with conflicts.	**Teaching strategies:** Interactive Lectures, Discussion **Learning strategies:** Self-learning assignments, Report writing	**Formative Assessment (30%):** Class tests, Hand written Assignment, Written Report **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
EDU-807	Drama & Arts in Education	Students: 1. Develop consciousness & awareness about drama towards society. 2. Plan to prepare activities based on drama and art to teach learners.	**Teaching strategies:** Interactive Lectures, Discussion, Project **Learning strategies:** Self-learning assignments, Report writing	**Formative Assessment (30%):** Class tests, Creative Assignment, Report presentation **Summative Assessment (70%):** Written examination-objective, short type and essay type questions

Course		Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
Course Code	Course Title			
EDU-808	A. Peace Education	Students: 1. Discuss the role of great personalities and social agencies in propagation of peace. 2. Create frameworks for achieving peaceful and nonviolent societies.	**Teaching strategies:** Interactive Lectures, Discussion, Activity **Learning strategies:** Self-learning assignments, Report writing	**Formative Assessment (30%):** Class tests, Assignment, Report Presentation **Summative Assessment (70%):** Written examination-objective, short type and essay type questions
	B. Physical Education & Yoga	Students: 1. Discuss the benefits of physical fitness and yoga in daily life with learners.		
	C. Guidance & Counseling	Students: 1. Discuss the issues and problems of learners and suggest solutions. 2. Identify the techniques used in guidance as per learner requirement.		
EDU-809A	School Internship-IV	Students: 1. Organize classroom teaching, various school activities and gain an experience of the multiple roles of a teacher.	**Teaching strategies:** Presentation, Simulation **Learning strategies:** Presentation in simulated conditions, Experiential learning, Peer practice	**Formative Assessment (30%):** Presentation in Simulated conditions, Peer reviews, Rubrics, Observation **Summative Assessment (70%):** Report Presentation, Portfolio Assessment, Practical examination
EDU-809B	Final Lesson-II	Students: 1. Construct and deliver the lesson plan effectively in the real classroom situation.	**Teaching strategies:** Tutorial **Learning strategies:** Self-learning Assignments, Learning by practice	**Summative Assessment (100%**): Teaching in real classroom situation (Practical examination) & Observation by external examiner

7. *Length of the programme and student workload*

- Length of the programme: 4 years/ 8 semesters/ 48 months/ 208 weeks.
- The number of hours for each unit and course is already indicated in the detailed prescribed syllabi.
- At IIS University, Jaipur 1 credit is 30 hours (15 hours for classroom contact and 15 hours for independent work).

Number of hours for each course is given hereunder:

Course		Type of Instr-uction	Contact Hours		Credits	Hours needed for Independent Work Per Semester
Course Code	Course Title		Per Semester	Per Week		
EDU-101	Contemporary India & Education-I	Theory	45	3	3	45
EDU-201	Contemporary India & Education-II	Theory	45	3	3	45
EDU-301	Environmental Education	Theory	45	3	3	45
EDU-302	Learning & Teaching - I	Theory	45	3	3	45
EDU-303	Open Air & SUPW- I	Practical	30	2	2	30
EDU-401	Critical Understand-ing of ICT	Theory	30	2	2	30
EDU-402	Learning & Teaching - II	Theory	45	3	3	45
EDU-403	Open Air & SUPW II	Practical	30	2	2	30
EDU-404	Computer Practical	Practical	15	1	1	15
EDU-501	Pedagogy of School Subject A. Physics - I B. Chemistry - I C. Mathematics - I D. Biology - I E. General Science - I	Theory	45	3	3	45

Course		Type of Instr-uction	Contact Hours		Credits	Hours needed for Independent Work Per Semester
Course Code	Course Title		Per Semester	Per Week		
EDU-502	School Internship - I	Practical	60	4	4	60
EDU-601	Pedagogy of school subject A. Physics - II B. Chemistry- II C. Mathematics - II D. Biology - II E. General Science II	Theory	45	3	3	45
EDU-602A	School Internship - II	Practical	60	4	4	60
EDU-602B	Final Lesson-I	Practical	—	—	2	30
EDU-700A	Nai Talim Through Rural Engagement	Theory	15	1	1	15
EDU-700B	Practicum - Rural Engagement	Practical	15	1	1	15
EDU-701	Pedagogy of School Subject A. Physics-I B. Chemistry- I C. Mathematics- I D. Biology- I E. General Science- I	Theory	45	3	3	45
EDU-702	Childhood & Growing up-I	Theory	45	3	3	45
EDU-703	School Leadership and Management	Theory	45	3	3	45
EDU-704	Assessment for Learning-I	Theory	45	3	3	45
EDU-705	Language Across the Curriculum	Theory	45	3	3	45
EDU-706	Understanding Disciplines & Subjects	Theory	45	3	3	45
EDU-707	Creating an Inclusive School	Theory	45	3	3	45
EDU-708	Reading & Reflecting on the Texts	Theory	45	3	3	45
EDU-709	School Internship III	Practical	90	6	6	90

Course		Type of Instr-uction	Contact Hours		Credits	Hours needed for Independent Work Per Semester
Course Code	Course Title		Per Semester	Per Week		
EDU-801	Pedagogy of School Subject A. Physics - II B. Chemistry - II C. Mathematics - II D. Biology - II E. General Science II	Theory	45	3	3	45
EDU-802	Childhood & Growing up-II	Theory	45	3	3	45
EDU-803	Knowledge & Curriculum	Theory	45	3	3	45
EDU-804	Assessment for Learning- II	Theory	45	3	3	45
EDU-805	Gender, School & Society	Theory	45	3	3	45
EDU-806	Understanding the Self	Theory	45	3	3	45
EDU-807	Drama & Arts in Education	Theory	45	3	3	45
EDU-808	A. Peace Education B. Physical Education & Yoga C. Guidance & Counseling	Theory	45	3	3	45
EDU-809A	School Internship-IV	Practical	90	6	6	90
EDU-809B	Final Lesson-II	Practical	-	-	2	30

8. *Overall consistency of the programme*

The overall programme consistency is presented in table 5

Year	Sem-ester	Course	Course Title	Competences Covered
1	1	EDU-101	Contemporary India & Education-I	C2, C3, C10, C13
	2	EDU-201	Contemporary India & Education-II	C2, C3, C5, C11
2	3	EDU-301	Environmental Education	C11
		EDU-302	Learning & Teaching - I	C12
		EDU-303	Open Air & SUPW- I	C2, C3, C4, C5, C9, C13
	4	EDU-401	Critical Understanding of ICT	C7, C15
		EDU-402	Learning & Teaching - II	C3, C10, C15
		EDU-403	Open Air & SUPW- II	C2, C3, C4, C5, C8, C10, C13
		EDU-404	Computer Practical	C7
3	5	EDU-501	Pedagogy of School Subject A. Physics - I B. Chemistry - I C. Mathematics - I D. Biology - I E. General Science - I	C1, C6
		EDU-502	School Internship - I	C4, C5, C6, C7, C10, C12, C16
	6	EDU-601	Pedagogy of school subject A. Physics - II B. Chemistry - II C. Mathematics - II D. Biology - II E. General Science – II	C1, C6, C7, C13, C15
		EDU-602A	School Internship - II	C4, C5, C6, C7, C10, C12, C16
		EDU-602B	Final Lesson-I	C6

Year	Sem-ester	Course	Course Title	Competences Covered
4	7	ERE-700A	Nai Talim Through Rural Engagement	C2, C3,
		ERE-700B	Practicum - Rural Engagement	C2, C3, C4, C5, C13, C16
		EDU-701	Pedagogy of School Subject A. Physics-I B. Chemistry- I C. Mathematics- I D. Biology- I E. General Science- I	C1, C6
		EDU-702	Childhood & Growing up-I	C12
		EDU-703	School Leadership and Management	C4, C5
		EDU-704	Assessment for Learning-I	C7, C15
		EDU-705	Language Across the Curriculum	C12, C9
		EDU-706	Understanding Disciplines & Subjects	C12, C9
		EDU-707	Creating an Inclusive School	C14
		EDU-708	Reading & Reflecting on the Texts	C9, C11
		EDU-709	School Internship - III	C4, C5, C6, C7, C8, C10, C12, C16
	8	EDU-801	Pedagogy of School Subject A. Physics - II B. Chemistry - II C. Mathematics - II D. Biology - II E. General Science - II	C1, C6, C7, C13, C15
		EDU-802	Childhood & Growing up-II	C3, C8
		EDU-803	Knowledge & Curriculum	C12
		EDU-804	Assessment for Learning- II	C7, C15
		EDU-805	Gender, School & Society	C2, C14
		EDU-806	Understanding the Self	C3, C11
		EDU-807	Drama & Arts in Education	C9, C12, C13

Internal Quality Control/ Enhancement

- The feedback on the revised curriculum will be obtained through feedback forms which includes items related to the quality of the curriculum and its analysis.
- The feedback will be obtained from different stakeholders like students, parents, teachers, employers and recruiters once in a semester after the semester gets over.
- The feedback form will be opinionnaire type in which each item has four alternatives. One open ended item in the form of suggestion(s) is also in the tool.
- The feedback so obtained will be analyzed by the faculty members through computer based software. Further assistance will be taken from faculty members of statistics department of the university.
- The necessary improvement in the existing curriculum will be implemented after getting it dully approved in the meeting of Board of Studies (BOS) in education.
- The unit level and programme level quality control procedures will be coordinated through the assessment and evaluation of the programme based on PLO and CLO.

Other Relevant Aspects

- The Curricula of B.Sc.B.Ed. programme offered by the University is structured and designed as per the guidelines of National Curriculum Framework for Teacher Education-2010 (NCFTE-2010) and National Council for Teacher Education, New Delhi.
- Every Year the department of education of the university gets the curricula of the courses approved by the Board of Studies (BOS) in Education which is further approved by the Academic Council and finally by the Board of Management.

- The department of education has already got the revised curricula of B.Sc.B.Ed. approved in the last meeting of Board of Studies (BOS) in Education

3. **G.D GOENKA UNIVERSITY, Sohna Gurugram** is the third implementing university in Tuning India Project.It has selected it B.Ed programme to implement Tuning philosophy. B.Ed programme. Bachelor of Education (B.Ed.) is an undergraduate level professional degree program offered for those interested in pursuing a career in teaching. The B.Ed. programme prepares teachers for teaching at upper primary or middle school level, i.e., class/grade VI (age11+yrs) to class/gradeVIII(age13+yrs), secondary school level, i.e., class/grade IX (age14+yrs) to class/grade X (age 15+yrs) and higher secondary school level, i.e., 10+2 or class/grade XI (age 16+yrs) and class/grade XII (age 17+yrs).The duration of the programme is two years. In India it is mandatory to have a B.Ed. degree to be eligible to teach from middle school level to senior secondary school level students.

   The Bachelor of Education (B.Ed.) degree is the first professional degree for those who want to pursue higher studies in Teacher Education such as M.Ed. after which the progression could be to M. Phil and Ph.D. in Education. The programme clearly indicates the possibility of progression from B.Ed. degree to M.Ed. followed by M.Phil. and Ph.D. degree.

   The eligibility criterion for admission to the Bachelor of Education (B.Ed.) Programme is prescribed by the National Council for Teacher Education (NCTE). Candidates with at least fifty percent marks (50%) either in the Bachelor's degree and/or in the Master's degree in Sciences/Social Sciences/Humanities, Bachelor's in Engineering or Technology with specialization in Science and Mathematics with fifty five percent marks (55%) or any other qualification equivalent thereto, are eligible for admission to the programme.

Revision of the programme

1. Keeping pace with the changing needs both at national and international level, Central Board of Secondary Education (CBSE) has announced that they would be implementing "Artificial Intelligence" (AI) as a subject for students of classes/standard VIII, IX, and X. Now, schools have begun gearing up for this change. "Artificial Intelligence" in Education is the need of the hour. The prevalence of AI has increased dramatically in the last few years. Most people are unaware that AI is a key technology behind personal assistants (Alexa, Siri, Google), autonomous vehicles, predictive analytics (Amazon and Netflix recommendations) and medical diagnostics just to name a few. Young people may be digitally active but most of them are digitally naive. They know little to nothing about how technology works. Young people are aware that smart machines are reshaping the employment landscape and hence they need to prepare themselves for this changing society. They need to be prepared to engage in dialogue about technology that is shaping their future. Additionally, students need to be able to synthesize knowledge about technology and form their own opinions regarding the appropriate uses of AI technologies.

   So, in order to meet the demands of the schools and society, the teacher education programmes also need to be revised.

2. MOOCs – Massive Online Open Courses are anew model for online courses that have quickly gained interest and support among universities in recent months. Both teachers and learners get world-wide exposure, thus improving pedagogical techniques and knowledge sharing. MOOCs can be used as a tool in a learning program, where students can access more information than what is provided in the class.

   Hence topics such as Crisis Management, Artificial Intelligence and MOOCs have been incorporated in the revised version of the program.

Future fields, sectors of employment/ occupation of graduates:

Description to help students to have a clear idea of future sectors of employment or further study possibilities

Graduates of B.Ed. program can be employed as teachers in secondary schools. They can be employed as educational consultants, supervisors and administrators in various institutes. They might be employed in institutions/organizations involved in development of curriculum, books and educational software. They can also work in alternative school systems. They might work as educational researchers.

Also, anyone who has acquired the qualification of Bachelor of Education (B.Ed.) from any NCTE recognized institution shall be considered for appointment as a teacher in classes I to V (Primary Teacher) provided the person so appointed as a teacher shall mandatorily undergo a six months Bridge Course in Elementary Education recognized by the NCTE, within two years of such appointment as primary teacher.

Coincidences with the Meta Profile

The data interpreted after collecting it for comparing the courses in the existing B.Ed. curriculum with the Meta Profile, revealed that the existing curriculum broadly caters to competences enlisted under Meta Profile and therefore is matching very well. Each course in the curriculum is majorly focusing on one or the other competences in the Meta Profile.

Following table shows the coincidences.

Meta Profile (Competences)	Course Codes Focusing on Competence
1. Conceptual Competences	EDU8507, EDU8508, EDU8707, EDU8711, EDU8712, EDU8714, EDU8715, EDU9506
2. Contextual Competences	EDU8705, EDU8508 EDU8510, EDU9702
3. Lifelong Learning Competences	EDU9503 in particular. All courses in general
4. Management Competences	EDU8709, EDU9706, EDU9710, EDU9501,EDU9505
5. Pedagogical Competences	EDU8711, EDU8712, EDU8713, EDU8714, EDU8715, EDU8716, EDU8717, EDU8718, EDU8719, EDU8720, EDU8721, EDU8722 EDU8510, EDU8701, EDU8704, EDU8508, EDU9501

Meta Profile (Competences)	Course Codes Focusing on Competence
6. Evaluation Competences	EDU8711, EDU8712, EDU8713, EDU8714, EDU8715, EDU8716, EDU8717, EDU8718, EDU8719, EDU8720, EDU8721, EDU8722, EDU8708
7. Research and Development	EDU9501, EDU8510
8. Student's Career	EDU9505, EDU9501, EDU9705
9. Ethical behaviour	EDU8703, EDU9705, EDU 9701
10. Cooperative and Collaborative competence	EDU9705, EDU8709, EDU8509, EDU9505
11. Inclusion competence	EDU9702, EDU9705, EDU8704, EDU8701, EDU 9701

Structure of the programme: units/courses/modules with their learning outcomes and learning, teaching and assessment strategies

Unit / Course / Module	Learning Outcome at course level: Students would be able to	Learning and Teaching Strategies	Assessment Strategies
1. Childhood and growing up	LO1: describes different aspects of a child's physical, motor, social and emotional development. LO2: explains the developmental processes of children with diverse abilities in socio-cultural context. LO3: interprets the impact of gender, caste and social class on the life experiences of children/ adolescents. LO4: discusses the role of different organizations in healthy development of children/ adolescents.	Teaching approaches: Interactive, Lectures (70%) Discussions (30%) Learning strategies: Case Studies, (10%) Inquiry (10%) Readings (70%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%)
2. Contemporary India and Education	LO5: describes the concept, meaning, aims and functions of Education. LO6: analyzes the thoughts of Indian and Western thinkers on Education. LO 7: identifies the issues and concerns of education in the socio-economic context of India. LO 8: reflects on the issues in contemporary India like globalization, modernization, and digitalization et	Teaching approaches: Interactive Lectures (60 %) Discussions (20%) Debates, Brainstorming sessions (10%) Learning strategies: Self learning, Readings (70%) and Assignments (10%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).

Unit / Course / Module	Learning Outcome at course level: Students would be able to	Learning and Teaching Strategies	Assessment Strategies
3. Knowledge and curriculum	LO 9: describes the epistemological and social bases of education. LO 10: differentiates between' knowledge, information, reason and belief. LO 11: identifies various aspects of the curriculum and their relationship in context with the aims of education. LO12: explains the basic concepts and process of curriculum planning, preparation of syllabi and development of text books at different levels	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10 %) Practical Assignments (10%) Presentations (10%) End WA Semester Exams (60%).
5. Language across the curriculum	LO17: recognizes the importance of language diversity existing in the classroom. LO18: adopts various types of strategies for using oral language in the classroom. LO19: uses informational reading skills in various content areas. LO20:analyzes children's writing to understand their concept	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
6. Communic2at IVE English-I	LO21: speak grammatically correct language LO22: communicate with proper pronunciation. LO23: Reads the text using appropriate vocabulary. LO24: Writes effectively both in formal and informal style.	Discussions (10% Debates, Brainstorming sessions (70%) Invited talks, Projects Learning strategies: Self learning, Readings and Assignments (30%)	Written Test (10%) Viva (10 %) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
7. Understanding ICT and its application	LO25: Uses ICT tools, software applications and digital resources in teaching learning process. LO26: Design her/his own digital resources for effective teaching-learning. LO27: Practices safe, ethical and legal ways of using ICT. LO28: Uses ICT for making classroom processes more inclusive and supportive in addressing multiple learning abilities.	Discussions, Projects (70%) Learning strategies: Self learning, Readings and Assignments (30%)	Demonstration (15%), Viva (10%), Assignment (10%) eportfolio (15%) ETE (50%)

Unit / Course / Module	Learning Outcome at course level: Students would be able to	Learning and Teaching Strategies	Assessment Strategies
8. School Experience Programme-I	LO29: Reflect on the roles & responsibilities of staff of different schools. LO30: Critically analyze the infrastructural facilities which are available in the schools.	Observation (10%) Discussions, (10%) Demonstrations (10%) Organization of Microteaching Sessions (50%)	Presentations (10%) Demonstrations (60%) Peer-Evaluation (10%) Self-Evaluation (10%)
9. Socially useful productive work (SUPW)	LO31: Prepare pupils to practice and perform manual work individually and collectively. LO32: Involve children with the world of work and services to the community to develop in them a sense of respect and dignity of labour. LO33: Contribute towards education and upliftment of socially weaker and deprived sections of the society	Discussions, Projects (70%) Learning strategies: Self learning, Readings and Assignments (30%)	Demonstration (15%), Viva (10%), Assignment (10%) eportfolio (15%) ETE (50%)
10. Learning and Teaching	LO34: Identify the differential learning needs of the learners with regard to abilities, learning styles, socio-cultural differences, language, and learning difficulties. LO35: Describe nature and kinds of learning. LO36: Explain concept of artificial intelligence and Moocs. LO37: Select and use emerging technologies such as Moocs and Artificial Intelligence in teaching-learning process. LO38: discuss the concept and nature of Intelligence, Personality and Adjustment.	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
11. Assessment of Learning	LO39: explain basic concepts of assessment and evaluation. LO40: describe formative and summative assessment, evaluation and measurement, test, examination. LO41: differentiate among various approaches of assessment. LO42: employ a wide range of assessment tools for evaluation.	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%)and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).

Unit / Course / Module	Learning Outcome at course level: Students would be able to	Learning and Teaching Strategies	Assessment Strategies
12. School Organization, Management And Quality Education	LO43: explain the concept and dimensions of quality. LO44: describe the basic concepts of Educational Management. LO45: illustrate different components of school organization. LO46: follow the principles of management during School Experience Programme. LO47: develop crisis management plan	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
13. Communicative English – II	LO48: speak grammatically correct language, LO49: read the text with proper pronunciation and articulation, LO50: write effectively both in formal and informal style. LO51: add new word to their active vocabulary.	Group discussions (20%) presentations, (10%) interview (20%), lectures (50%)	Projects, Portfolios, Reflective Writing Written Assignments, Viva, Class Tests, and End Semester Exam (50%)
14. Teaching Of Biological Science	LO52: explain nature of biological science as a process and as a body of knowledge. LO53: framed objectives of teaching Biological science based on Blooms Taxonomy. LO54: analyze various approaches of teaching learning of Biological science. LO55: apply various techniques of evaluation.	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
15. Teaching Of English	LO56: define the nature and characteristics of the language, LO57: practice the required skills and their inter links for mastering the language, LO58: use various approaches of teaching English language, LO59: apply the techniques of evaluation	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).

Unit / Course / Module	Learning Outcome at course level: Students would be able to	Learning and Teaching Strategies	Assessment Strategies
16. Teaching of Mathematics	LO60: explain the nature of mathematics. LO61: identify objectives of teaching mathematics using Blooms Taxonomy. LO62: select appropriate methods of teaching mathematics. LO63: apply appropriate evaluation techniques.	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
17. Teaching of Physical Science	LO64: explain the nature, scope and importance of Physical science in school curriculum. LO65: identify aims and objectives of teaching Physical science according to Blooms Taxonomy. LO66: apply different approaches & methods of teaching Physical science. LO67: apply the techniques of evaluation.	Lectures, Discussions, Debates (70%)Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
18. Teaching of Social Sciences	LO68: explain nature and scope of Social Sciences. LO69: identify aims and objectives of teaching Social Science according to Blooms Taxonomy LO70: apply different approaches & methods of teaching Social Science. LO71: apply the techniques of evaluation	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
24. School Experience Programme-II	LO92: explain the role and responsibilities of a teacher. LO93: describe the roles & responsibilities of administrative school staff. LO94: enlist various types of records maintained in the school. LO95: reflect on the problems faced by the teachers in continuous and comprehensive evaluation	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (50%).

Unit / Course / Module	Learning Outcome at course level: Students would be able to	Learning and Teaching Strategies	Assessment Strategies
25. Understanding Self and ICT	LO96: make use of life skills in their professional lives. LO97: apply social skills in various situations created during their professional discourse. LO98: organize various co- curricular activities at schools. LO99: appreciate the diverse Indian cultural heritage.	Discussions, Projects (70%) Learning strategies: Self learning, Readings and Assignments (30%)	Demonstration (15%), Viva (10%), Assignment (10%) eportfolio (15%) ETE (50%)
26. Reading and Reflecting on Texts	LO100: reflect their interest in reading variety of text though creative writing. LO101: demonstrate verbal presentation skills during various co-curricular activities. LO102: organize activities like elocution, debates, group discussions, paper reading during their professional training.	Discussions, Projects (70%) Learning strategies: Self learning, Readings and Assignments (30%)	Demonstration (15%), Viva (10%), Assignment (10%) eportfolio (15%) ETE (50%)
27. School Experience Programme-III	LO103: practice teaching skills in microteaching settings. LO104: use conventional and innovative teaching methodologies during internship programmes in schools. LO105: conduct action research in schools. LO106: use various types of evaluation tools for the purpose of assessment of academic progress of student-teachers in the school. LO107: record reflections based on their day to day experiences at the school during internship.	Discussions, Projects (70%) Learning strategies: Self learning, Readings and Assignments (30%)	Demonstration (15%), Viva (10%), Assignment (10%) eportfolio (15%) ETE (50%)
28. Gender, School and Society	LO108: identify various gender issues prevailing in the society. LO109: explain educational implications of theories on gender in the Indian context. LO110: debate on changing perceptions about gender, power and education with legal provision. LO111: work towards gender equality.	Lectures, Discussions, Debates(70%) Brainstorming sessions(10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).

Unit / Course / Module	Learning Outcome at course level: Students would be able to	Learning and Teaching Strategies	Assessment Strategies
29. Creating an Inclusive School	LO 112: explain concept of inclusiveness in the context of Education for all. LO113: identify the diverse needs of differently abled learners. LO 114: highlight the role and functions of support services required in an inclusive school. LO115:discuss the pedagogical provisions required for differently abled children in a school.	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
30. Understanding Discipline and Subjects	LO116: discuss the structure of knowledge as reflected in disciplinary streams and subjects LO117: critically evaluate the knowledge from a broad range of disciplines. LO118: relate the significance of school subjects towards social and national development. LO119:analyze the linkage between disciplines and school subjects.	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%)and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
Environmental 31. Education and sustainable development	LO120: describe the concept of Environment and its relation to human beings; LO121: explain natural resources, environmental issues and preventive measures. LO122: analyze the concept of biodiversity and sustainable development in mega diversity nation India. LO123: explain the progression of Environmental Management	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).
32. Foundations of Life Skills	LO 124: To describe the theoretical foundations of Life Skills and Life Skills Education. LO 125: To apply various methods of nurturing life skills among the pupils. LO 126: scaffold the pupils to practice core life skills of self-awareness, empathy, coping with stress and emotion and effective communication & building interpersonal relationships. LO 127: demonstrate core life skills of critical and creative thinking, decision making and problem solving.	Lectures, Discussions, Debates (70%) Brainstorming sessions (10%) Invited talks, (5%) Projects (15%) Learning Strategies: Self Learning, Readings (80%) and Assignments (20%)	Written Test (10%) Viva (10%) Practical Assignments (10%) Presentations (10%) End Semester Exams (60%).

Length of the programme and student workload

Bachelor of Education (B.Ed.) Programme of G D Goenka University and is approved by National Council For Teacher Education (NCTE) & Department of Higher Education, Govt. of Haryana. According to NCTE norms the B.Ed. programme shall be duration of two academic years. There shall be at least two hundred working days exclusive of the period of examination and admission.

S.No	Name of the Paper	Credits	Theory/ Practical	Contact Hour per week	Proposed Home Hours
1	EDU8701; Childhood and Growing Up	4	Theory	4	4
2	EDU8702; Contemporary India and Education	4	Theory	4	4
3	EDU8703; Knowledge and Curriculum	4	Theory	4	4
4	EDU8704; Teacher as a Counsellor	3	Theory	3	2
5	EDU8705; Language Across the Curriculum	3	Theory	3	2
6	EDU8706; Communicative English-I	2	Theory	2	1
7	EDU8507:Understanding ICT and its Application	1	Practical	1	1
8	EDU8508;School Experience Programme-I	1	Practical	1	1
9	EDU8509;Socially Useful Productive Work (SUPW)	1	Practical	1	1

Semester II

S.No	Name of the Paper	Credits	Theory/ Practical	Proposed Home Hours	Contact Hour per week
1	EDU8707; Learning and Teaching	4	Theory	4	4
2	EDU8708; Assessment of Learning	4	Theory	4	4
3	EDU8709; School Organization, Management and Quality Education	4	Theory	4	4
4	EDU8710; Communicative English-II	2	Theory	2	2
5	EDU8711;Teaching of Biological Science	3	Theory	3	3
6	EDU8712;Teaching of English	2	Theory	3	3
7	EDU8713 ;Teaching of Mathematics	1	Theory	3	3
8	EDU8714;Teaching of Physical Science	1	Theory	3	3
9	EDU8715;Teaching of Social Sciences	1	Theory	3	3
10	EDU8510; School Experience Programme-II	1	Practical	1	1
11	EDU8511; Understanding Self & ICT1	1	Practical	1	1
12	EDU8512; Reading and Reflecting on Texts	1	Practical	1	1

Semester III

S.No	Name of the Paper	Credits	Theory/ Practical	Proposed Home Hours	Contact Hour per week
1	EDU9701; Gender, School and Society	4	Theory	4	4
2	EDU9702; Creating an Inclusive School	4	Theory	4	4
3	EDU9703; Understanding Discipline and Subjects	4	Theory	4	4
4	EDU9704; Environmental Education And Sustainable Development	3	Theory	3	3
5	EDU9705; Foundations of Life Skills	3	Theory	3	3
6	EDU9503;Life Long Learning	2	Theory	1	1
7	EDU9504;Yoga, Health and Physical Education	1	Practical	1	1
8	EDU9505;Working with Society	1	Practical	1	1
9	EDU9506; Arts in Education	1	Practical	1	1

Semester IV

S.No	Name of the Paper	Credits	Theory/ Practical	Contact Hour per week	Proposed home hours
1	EDU9501; School Experience Programme-III	24	Practical	24	24

Workload of students is 36 hours in a week. The minimum attendance of student teachers shall have to be 80% for all course work and 90% for internship and practicum.

There is an Internal Quality Assurance Cell in the University. A Feedback on the revised curriculum will be obtained by at least five stakeholders i.e. the Teachers, Students, Parents of the students, Alumni subject Experts and the prospective employers of the students. A copy of revised syllabus of the program will be mailed to all the stakeholders and a feedback form in the form of Rating Scale or questionnaire is provided to them in which they will rate various aspects of curriculum and will provide their suggestions. This feedback will be analyzed at department level and level of attainment will be measured.

The Board of Studies consider and make recommendation to the Academic council on the changes in curriculum. A Sub-Committee may be constituted by the Board of Studies to discharge the duties in any specified area. It shall consist of the following members, namely:

(1) The Dean of the Department(Convener);

(2) Three teachers from the Department, and

(3) Two persons to be co-opted by the Sub-Committee for their special knowledge, whenever necessary

The B.Ed. programme is approved by NCTE and NCTE advocates that school teachers should be invited to teacher-education institutions for providing feedback to the upcoming teachers. Also, both, at the levels of NCTE and university inspections must be conducted regularly where program quality control procedures are coordinated.

4. **Jagran Lakecity University, Bhopal** is the fourth implementing university. It has selected B.Ed. programme for implementation of Tuning philosophy. The basic purpose of this programme is to produce competent and skilled teachers to teach students at secondary level. The programme has been redesigned to meet the following needs:

- To produce teachers to meet the shortage of staff/workforce and the additional requirement generated after the implementation of the Right to Education Act-2009.
- The need is also justified looking to the dearth of women school teachers in the Madhya Pradesh state and also the ones catering to Central Board of Secondary Education (CBSE) or Council for the Indian School Certificate Examination (CISCE) board English medium schools including State Board schools.
- With the increasing number of Schools in Bhopal, offering various programmes of International Baccalaureate (IB) and Cambridge International Examinations (CIE), there is a need for teachers who can teach as per international curricula.
- During the bridging activity of the Tuning India Project, it has been observed that most of the competences in the meta profile are bridged with existing curricula of B.Sc. B.Ed. programme. To ensure that the B.Sc. B.Ed. programme of the JLU, Bhopal University delivers students all the core teacher meta profile competences, the existing curricula of B.Sc. B.Ed. programme has been appropriately revised.

Eligibility Criteria

- Graduation/Post Graduation (in any stream) from a recognized institution with minimum 50% marks.
- This is a regular programme recognised by NCTE (National Council of Teacher Education), New Delhi. NCTE is a statutory body of MHRD (Ministry of Human Resource and Development), Govt. of India.
- Admission is given on the basis of University Entrance Exam (administered by the University)
- Personal interview is conducted by a panel of the faculty members once the candidate qualifies the Entrance Exam.

Possible Progression to further studies: After successful completion of this programme. Students can pursue any of the following programmes

- M.Ed. or M.A. (Masters of Education)
- Pursue post-graduation in various disciplines. For example:
    - M.A. (Masters in Arts)
    - M.Com.(Masters in Commerce)
    - M.Sc.(Masters in Science)
    - MSW (Masters in Social Work), and many more post-graduate programmes can be accessed after completion of B.Ed.

STRUCTURE OF THE PROGRAMME Structure of the programme: units/courses/modules with their learning outcomes and learning, teaching and assessment strategies

Course code	Course name	Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
BEDC101	Childhood and Growing up	1. Analyze major developmental milestones for children from conception to adolescence in the areas of physical, psychological, cognitive, and language development (CLO1) 2. Critically examine the theories of learning in school environment. (CLO2) 3. Assess the importance of the early years and the effect of social/ environmental factors on various areas of development. (CLO3).	• Portfolio of school going children • Giving opportunities to Participate in social activities in school • Debate & Discussions related to root cause of adjustment issues	**Formative: 30%** • Behaviour of children assessed while working in and outside of the classroom • Participation in classroom discussion **Summative: 70%** • Question-Answer, • Observation report.
BEDC103	Understanding disciplines and subjects (UDS)	1. Engage student-teachers with epistemological questions of subject matter and how they unfold in the study of pedagogical approaches. (CLO9) 2. Demonstrate effective strategies for approaching and understanding key ideas within disciplines. (CLO8) 3. Design key concepts and ideas through text performances or other material appropriate to the disciplines(CLO7)	Lectures, debates and discussions	ESE
BEDE104	Pedagogy of Mathematics	1. Stimulate curiosity, creativity and inventiveness in mathematics (CLO10) 2. Explain the meaning, nature, scope and objective of mathematics education (CLO11) 3. Use mathematics to formulate and solve problems in daily life as well as in mathematical contexts and other disciplines (CLO12)	• Interactive Lecture • Project on developing mathematical thinking and learning process. • Interdisciplinary project	**Formative: 30%** • Assignment, Quiz, (30 min.) • Assignment, Class test project on mathematical thinking. **Summative: 70%** • Project report, Assignment End Sem. Exam

Course code	Course name	Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
BEDE106	Pedagogy of Social science	1. Select and use an appropriate teaching method, approach and device for promoting effective teaching and learning (CLO16) 2. Use basic knowledge and skills to analyse and transact the Social Sciences curriculum effectively. (CLO17) 3. Construct, apply and administer achievement tests for evaluation of learning outcomes. (CLO18)	• Identification of teaching learning resources in Social Sciences • Content Mapping of Social Sciences text book (middle school)	**Formative: 30%** • Assignment based on teaching learning resources • Class tests • MSE **Summative: 70%** • ESE • Content mapping
BEDL114	Field Trips(FT) /School Exposure (SE)	1. Plan and execute the excursions/field trips/picnics and report the integration of such activities with the discourse of school subjects. (CLO40) 2. Demonstrate empathy, tolerance, critical thinking during visit and discuss about the environmental issues (CLO41) 3. Demonstrate leadership team work in various situations. (CLO42)	• Organizing field trips to different places	**Formative: 40%** • Planning and preparation (as a teacher accompanying students) **Summative: 60%** • Extent of involvement • Documenting/ reporting the visit • Presentation/ discussion on the significance of the visit
BEDE203	Pedagogy of Mathematics	1. Stimulate curiosity, creativity and inventiveness in mathematics. (CLO49) 2. Explain the meaning, nature, scope and objective of mathematics education (CLO50) 3. Use mathematics to formulate and solve problems in daily life as well as in mathematical (CLO51)	• Planning the lesson on different topics of mathematics • Practice of framing question papers on various of topics in mathematics • Organise various activity to teach mathematics	**Formative: 40%** • Assessment of Lesson plans • Assignment • Mathematical games, puzzles **Summative: 60%** • Paper pencil test (ESE)

Course code	Course name	Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
BEDE204	Pedagogy of Biology	1. Select and use an appropriate teaching method, approach and device for promoting effective teaching and learning. (CLO52) 2. Construct, apply and administer achievement tests for evaluation of learning outcomes. (CLO53) 3. Organize co-curricular activities to develop scientific attitude among the learners. (CLO54)	• Analysis of various types of curriculum and lesson planning. • Discussion on selection of assessment tools according to content • Visit to botanical garden, zoo, national parks, National level institutes and labs	**Formative: 40%** • Sample lesson planning on selected topics (Biology) **Summative: 60%** • Report on analysis of various school curriculum • Report on visits • Presentation
BEDE205	Pedagogy of Social Science	1. Select and use an appropriate teaching method, approach and device for promoting effective teaching and learning. (CLO55) 2. Construct, apply and administer achievement tests for evaluation of learning outcomes. (CLO56) 3. Organize co-curricular activities to develop social awareness among the learners. (CLO57)	• Interdisciplinary Projects • To organize Nukkad Natak (Street Show) on social issues. • Interactive lectures	**Formative: 40%** • Assignments, • Participation in Nukkad natak (Street show) • Mid Sem. Exam **Summative: 60%** • Report on Projects • End Sem. Exam
BEDE206	Pedagogy of Commerce	1. Select and use an appropriate teaching method, approach and device for promoting effective teaching and learning. (CLO58) 2. use basic knowledge and skills to analyse and transact the Commerce curriculum effectively. (CLO59) 3. Construct, apply and administer achievement tests for evaluation of learning outcomes. (CLO60)	• Interactive lectures, • Group Discussions • Interdisciplinary Projects	**Formative: 40%** • Class tests, Assignments • Participation in discussion • Mock Test **Summative: 60%** • Reporting the project • MSE, ESE, Class tests

Course code	Course name	Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
BEDE207	Pedagogy of Computer Application (PCA2b)	1. Practice various methods that can be employed for the teaching of computer science. (CLO61) 2. Develop skill in using windows and its application in teaching learning process. (CLO62) 3. Analyze the data pertaining to school record. (CLO63)	• Interactive • Interactive lectures, • PPT presentation • Visiting different schools • Lectures	**Formative: 40%** • Debate • Examination • Class test • Examination **Summative: 60%** • Preparing Blueprints • Examination • Assignments • Examination
BEDE208	Pedagogy of Home Science	1. Select and use an appropriate teaching method, approach and device for promoting effective teaching and learning (CLO64) 2. Construct, apply and administer achievement tests for evaluation of learning outcomes. (CLO65) 3. Organize co-curricular activities to apply knowledge in real life situation (CLO66)	• Discussion on scope and carrier opportunities in home science	**Formative: 40%** • MSE • Assignments • Making of teaching aid for given topics • Make a list of possible carrier opportunities in in home science **Summative: 60%** • ESE Exam • Participation in classroom activities
BEDE209	Pedagogy of General Science	1. Select and use an appropriate teaching method, approach and device for promoting effective teaching and learning (CLO67) 2. Construct, apply and administer achievement tests for evaluation of learning outcomes. (CLO68) 3. Organize co-curricular activities to develop scientific attitude among the learners. (CLO69)	• Project based on learning resources • Interactive lectures, • Organise programme for professional development • Discussion on scope in general science	**Formative: 40%** • Presentation on project • Assignment, MSE • Prepare a blueprint for examination • Participation in seminars, conferences **Summative: 60%** ESE, Make a list of job prospects in GS

Course code	Course name	Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
BEDE210	Pedagogy of English	1. Select and use an appropriate teaching method, approach and device for promoting effective teaching and learning. (CLO70) 2. Organize co-curricular activities to apply knowledge of language. (CLO71) 3. Construct, apply and administer achievement tests for evaluation of learning outcomes. (CLO72)	• Give some examples of stories/ poems/drama and books.	**Formative: 40%** Assignments, Class tests, Examination to assess the learners by observing them when they retell thestory; their creativity in retelling, extending the story, like anddislike of the characters, use of vocabulary, voice modulation, **Summative: 60%** ESE, Class tests
BEDE211	Pedagogy of Hindi	1. Select and use an appropriate teaching method, approach and device for promoting effective teaching and learning. (CLO73) 2. Organize co-curricular activities to apply knowledge of language. (CLO74) 3. Construct, apply and administer achievement tests for evaluation of learning outcomes. (CLO75)	• Give some examples of stories/ poems/drama and books.	**Formative:40%** Assignments, Class tests, Examination to assess the learners by observing them when they retell the story; their creativity in retelling, extending the story, like and dislike of the characters, use of vocabulary, voice modulation, **Summative: 60%** ESE, Class tests
BEDL212	Drama and Art in Education (DAE)	1. Incorporate drama and art in teaching in classroom teaching and various school activities. (CLO76) 2. Use drama and art in spreading awareness through social and environmental issues. (CLO77) 3. Plan to prepare activities based on drama and art to teach learners. (CLO78)	• Workshop • contextualizing different art forms and relating them with various concepts across the curriculum.	**Formative: 40%** • Participation in the activities • Creative potential displayed; • Application of aesthetic sensibility in campus events and in other course activities. **Summative: 60%** submission of Report on work/project;

Course code	Course name	Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
BEDC301	Knowledge and Curriculum	1. Explain about different ways of knowing (CLO81) 2. Examine the different facts of knowledge. (CLO82) 3. Justify the role of teacher in knowledge construction. (CLO83)	• Interactive lectures • Analysis of different theories behind acquiring knowledge	**Formative:40%** • Assignments, • Class tests • MSE **Summative:60%** • Observation during discussion • ESE
BEDL302	School Internship-I(SI) Phase-I & Community Work	1. Demonstrate teaching in lab Schools using appropriate methods, materials and skills. (CLO84) 2. Organize classroom teaching, various school activities to experience the multiple roles of a teacher. (CLO85) 3. Design assessment tools to measure the learning outcomes. (CLO86)	• Practice teaching in lab schools • Activity related to community work (teaching to rural area schools, health awareness campaign)	**Formative: 40%** • Observation • Lesson plan diaries • Report on community work **Summative:60%** End Sem Exam
BEDL303	School Internship-II(SI) Phase-II & Community Work	1. Demonstrate teaching in lab Schools using appropriate methods, materials and skills. (CLO87) 2. Organize classroom teaching, various school activities to experience the multiple roles of a teacher. (CLO88) 3. Design assessment tools to measure the learning outcomes. (CLO89)	• Practice teaching in lab schools • Activity related to community work (Teaching science concepts by using virtual lab in rural schools)	**Formative: 40%** • Observation • Lesson plan diaries • Report on community work **Summative: 60%** End Sem Exam
BEDL304	Health, Yoga and Exercise	1. Discuss the benefits of physical fitness and yoga in daily life with learners. (CLO90) 2. Analyse the health status, identify health problems and be informed for taking remedial measures. (CLO91)	• Teaching with demonstration • Workshops	**Formative: 40%** • Assignment • Assessment based on participation in activities and workshops **Summative: 60%** • Report on workshop • Final demonstration • ESE and viva

Course code	Course name	Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
BEDL305	Environmental Awareness	1. Illustrate the importance of natural environment for human existence. (CLO92) 2. Demonstrate the role of humans in causing pollution at local level. (CLO93) 3. Organise the workshops, seminars, discussions on environmental issues and remedies. (CLO94)	• Discussion on environmental issues • Field visit/Nature walk • Organize environmental awareness programme	**Formative: 40%** • Assignment • Participation in activity **Summative: 60%** • ESE
BEDC401	Experiential learning through vocational education (Nai Talim)	1. Discuss the vision and philosophy of NEP 2020, Gandhiji's Nai Talim and their links to vocational education. (CLO95) 2. Demonstrate few best practices in the areas of Vocational Education (Productive Work with Economic Value), (CLO96) 3. Develop an intellectual understanding of the local civic engagement sphere. (CLO97)	• Organize local workshop • Provide opportunities to learn local craft	**Formative: 40%** • Comparison on various types of curriculum in Indian context • Participation in discussion **Summative: 60%** • Report on critical analysis of present curriculum in (middle schools) of Kendriya Vidyalaya • Presentation • ESE
BEDC402	Contemporary India & Education	1. Analyze the educational Philosophy of Indian and western thinkers. (CLO98) 2. Critically analyze the policy formulation in education in pre and post independent India. (CLO99) 3. Identify social, cultural issues and challenges at different level of education. (CLO100)	Lectures	ESE

Course code	Course name	Learning outcome (at course level)	Learning and teaching strategies	Assessment strategies
BEDE405	Environmental Education (EE)	1. Organize local surveys related to various environmental issues and organize different activities for spreading awareness. (CLO107) 2. Create environmental awareness through different modes of education. (CLO108) 3. Analyse Government and non-Government initiatives for environmental conservation. (CLO109)	• Videos • Talk shows • Assign Projects on sustainable development. • Biodiversity conservation etc.	**Formative: 40%** • Group discussion • Examination • Participation • Summative: • Report on Project • ESE **Summative: 60%** Formal standardized assessment examination
BEDL410	Reading and Reflecting on Text(RRT)	1. Analyze the various kind of texts. (CLO110) 2. Demonstrate strategies of reading and reflecting on the ideas expressed in texts. (CLO111)	• Constructive reading writing process, • Presenting book review • Presenting movie review • Create a podcast on any social topic	**Formative: 40%** • Oral presentations • Debates • Presentations • Loud reading in the classroom/ seminar • Diary • Book review **Summative: 60%** • End Sem. Exam

Length of the Programme

- Overall duration of the Programme – 2 Years

Course Code	Course Paper		Number of Contact Hours (Minimum)	Number of hours students need to work on this course/paper outside the classroom successfully meet the course/paper requirements (revision of notes, completion of assignments, preparation of presentations, work in the library, preparation for intermediate and final assessments, etc.)	Total number of hours (contact and outside class)	ECTS (25-30 hrs per credit)
		Credit	Per semester	Per semester	Total (15 weeks per semester)	
BEDC101	Childhood and Growing up	4	65	65	130	5.2
BEDC102	Language across curriculum	2	40	40	80	3.2
BEDC103	Understanding disciplines and subjects (UDS)	2	40	40	80	3.2
BEDE104	Pedagogy of Mathematics	2	40	40	80	3.2
BEDE105	Pedagogy of Biology	2	40	40	80	3.2
BEDE106	Pedagogy of Social science	2	40	40	80	3.2
BEDE107	Pedagogy of Commerce	2	40	40	80	3.2
BEDE108	Pedagogy of Computer Application	2	40	40	80	3.2
BEDE109	Pedagogy of Home Science	2	40	40	80	3.2

Course Code	Course Paper		Number of Contact Hours (Minimum)	Number of hours students need to work on this course/paper outside the classroom successfully meet the course/paper requirements (revision of notes, completion of assignments, preparation of presentations, work in the library, preparation for intermediate and final assessments, etc.)	Total number of hours (contact and outside class)	ECTS (25-30 hrs per credit)
		Credit	Per semester	Per semester	Total (15 weeks per semester)	
BEDE110	Pedagogy of General Science	2	40	40	80	3.2
BEDE111	Pedagogy of English	2	40	40	80	3.2
BEDE112	Pedagogy of Hindi	2	40	40	80	3.2
BEDL113	Use of ICT in Teaching-Learning Assessment	2	40	40	80	3.2
BEDL114	Field Trips (FT)/School Exposure (SE)	2	5 trips	40	80	3.2
BEDC201	Learning and Teaching (L&T)	4	65	65	130	5.2
BEDC202	Assessment for Learning	4	65	65	130	5.2
BEDE203	Pedagogy of Mathematics	2	40	45	80	3.2

Course Code	Course Paper		Number of Contact Hours (Minimum)	Number of hours students need to work on this course/paper outside the classroom successfully meet the course/paper requirements (revision of notes, completion of assignments, preparation of presentations, work in the library, preparation for intermediate and final assessments, etc.)	Total number of hours (contact and outside class)	ECTS (25-30 hrs per credit)
		Credit	Per semester	Per semester	Total (15 weeks per semester)	
BEDE204	Pedagogy of Biology	2	40	40	80	3.2
BEDE205	Pedagogy of Social Science	2	40	40	80	3.2
BEDE206	Pedagogy of Commerce	2	40	40	80	3.2
BEDE207	Pedagogy of Computer Application	2	40	40	80	3.2
BEDE208	Pedagogy of Home Science	2	40	40	80	3.2
BEDE209	Pedagogy of General Science	2	40	40	80	3.2
BEDE210	Pedagogy of English	2	40	40	80	3.2
BEDE211	Pedagogy of Hindi	2	40	40	80	3.2
BEDL212	Drama and Art in Education (DAE)	2	40 (Divide into weeks)	40	80	3.2

Course Code	Course Paper		Number of Contact Hours (Minimum)	Number of hours students need to work on this course/paper outside the classroom successfully meet the course/paper requirements (revision of notes, completion of assignments, preparation of presentations, work in the library, preparation for intermediate and final assessments, etc.)	Total number of hours (contact and outside class)	ECTS (25-30 hrs per credit)
		Credit	Per semester	Per semester	Total (15 weeks per semester)	
BEDL213	School Attachment	4	65 hrs. 4 weeks	65	130	5.2
BEDC301	Knowledge and Curriculum	2	40	40	80	3.2
BEDL302	School Internship-I(SI) Phase-I & Community Work	6	45 days 120	120	240	10.0
BEDL303	School Internship-II(SI) Phase-II & Community Work	6	45 days 120	120	240	10.0
BEDL304	Health, Yoga and Exercise	1	10	10	20	0.8
BEDL305	Environmental Awareness	1	10	10	20	0.8
BEDC401	Experiential learning through vocational education (Nai Talim)	2	40	40	80	3.2

Course Code	Course Paper		Number of Contact Hours (Minimum)	Number of hours students need to work on this course/paper outside the classroom successfully meet the course/paper requirements (revision of notes, completion of assignments, preparation of presentations, work in the library, preparation for intermediate and final assessments, etc.)	Total number of hours (contact and outside class)	ECTS (25-30 hrs per credit)
		Credit	Per semester	Per semester	Total (15 weeks per semester)	
BEDC402	Contemporary India & Education	4	65	65	130	5.2
BEDC403	Gender, School and Society (GSS)	2	40	40	80	3.2
BEDC404	Creating an Inclusive School (CIS)	2	40	40	80	3.2
BEDE405	Environmental Education (EE)	2	40	40	80	3.2
BEDL410	Reading and Reflecting on Text (RRT)	2	20	20	40	3.2
BEDL411	Understanding the Self (US)	2	20	20	40	3.2

Programme Overall Consistency

Step-8-Programme Overall Consistency

Semester-1					
JLU Exam Code	**Course/Paper Title**	**Credits**	**Hours/ week**	**Per Semester**	**Hours for Independent work (per semester)**
BEDC101	Childhood & Growing Up (CGU)	4	6	**65**	**65**
BEDC102	Language across Curriculum (LAC)	2	3	40	40
BEDC103	Understanding Disciplines & Subjects (UDS)	2	3	40	40
BEDE104 BEDE105 BEDE106	Pedagogy of School Subject-1a (1/2) **Science Stream:** • Mathematics (PM1a) • Biological Science (PB1a)	2	3	40	40
BEDE107 BEDE108 BEDE109	**Humanities Stream:** • Social Science (PSSc1a) **Commerce Stream:** • Commerce (PC1a) **Computer Stream:** • Computer Application (PCA1a) **Home Science Steam:** Home Science (PHS1a)				
BEDE110 BEDE111 BEDE112	Pedagogy of School Subject-2a (1/2) **Science Stream:** • General Science (PGS2a) **Humanities Stream/ Commerce Stream/Computer Stream/ Home Science Steam** • English (PEng2a) • Hindi (PH2a)	2	3	40	40

Semester-1					
JLU Exam Code	**Course/Paper Title**	**Credits**	**Hours/ week**	**Per Semester**	**Hours for Independent work (per semester)**
BEDL113	Use of ICT in Teaching-Learning & Assessment (ICT)	2	3	40	40
BEDL114	Field Trips (FT)/School Exposure (SE) (Reports)	2	*5 in sem I	40	40

Semester-2					
JLU Exam Code	**Course/Paper Title**	**Credits**	**Hours/ week**	**Per Semester**	**Hours for Independent work (per semester)**
BEDC201	Learning and Teaching (L&T)	4	6	**65**	**65**
BEDC202	Assessment for Learning (AFL)	2	3	40	40
BEDE203 BEDE204 BEDE205 BEDE206 BEDE207 BEDE208	Pedagogy of School Subject-Ib (1/2) **Science Stream:** • Mathematics (PM2b) • Biological Science (PB2b) **Humanities Stream:** • Social Science (PSSc1b) **Commerce Stream:** • Commerce (PC1b) **Computer Stream:** • Computer Application (PCA1b) **Home Science Steam:** Home Science (PHS1b)	2	3	40	40

Semester-2					
JLU Exam Code	**Course/Paper Title**	**Credits**	**Hours/ week**	**Per Semester**	**Hours for Independent work (per semester)**
BEDE209 BEDE210 BEDE211	Pedagogy of School Subject-2b (1/2) **Science Stream:** • General Science (PGS2b) **Humanities Stream/ Commerce Stream/Computer Stream/ Home Science Steam** • English (PEng2b) Hindi (PH2b)	2	3	40	40
BEDL212	Drama & Art in Education (DAE)	2	2 work-shops in sem 2	40	40
BEDL213	School Attachment (SA) **(Reports)**	4	4 Weeks	65	65

Semester-3					
JLU Exam Code	**Course/Paper Title**	**Credits**	**Hours/ week**	**Per Semester**	**Hours for Independent work (per semester)**
BEDC301	Knowledge & Curriculum-I	2	3	**40**	**40**
BEDL302	School Internship (SI)	6	45 days	120	120
BEDL303	School Internship (SI)	6	45 days	120	120
BEDL304	Health, Yoga and Exercise (HYE)	1	3	40	40

Semester-3					
JLU Exam Code	**Course/Paper Title**	**Credits**	**Hours/ week**	**Per Semester**	**Hours for Independent work (per semester)**
BEDL305	Environmental Awareness (EA)	1	2 work-shops in Sem 2	40	40

Semester-4					
JLU Exam Code	**Course/Paper Title**	**Credits**	**Hours/ week**	**Per Semester**	**Hours for Independent work (per semester)**
BEDC401	Experiential learning through vocational education (Nai Talim)	2	3	**40**	40
BEDC402	Contemporary India & Education (CIE)	4	6	65	65
BEDC403	Gender, School and Society (GSS)	2	3	40	40
BEDC404	Creating an Inclusive School (CIS)	2	3	40	40
BEDE405 BEDE406 BEDE407 BEDE408 BEDE409	Optional Course (OP) • Environmental Education (EE) • Guidance & Counselling (C&G) • Health & Physical Education (HPE) • Management of Educational Institutions (MEI) Assessment, Evaluation & Remedial (AER)	2	3	40	40
BEDL410	Reading & Reflecting on Text (RRT)	2	3	40	40
BEDL411	Understanding the Self (US)	2	3	40	40

- **Board of Studies:** For Curriculum development, a Board of Studies (BOS) is constituted comprising of renowned experts from various academic institutions, senior faculty members, including external members representing the school industry. The BOS is arranged every year to revise the syllabus and the programme structure, keeping in view the changing demands of the work. The BOS guides and provide strategic advice and guidance to implement the pedagogical changes in the syllabus.

- **Students Feedback:** The School of Education collects the Semester-wise students' feedback on suggestions for improvement and ideas for more effective implementation of the curriculum. While obtaining the feedback from the students, the University is maintaining absolute anonymity. The analyzed feedback is provided to Schools for bringing the required changes for quality improvement and internal checks.

- **Internal Quality Assurance:** University has an Internal Quality Assurance Cell (IQAC) which is making sure implementation of major academic programmes defined by various leading Accreditation bodies.

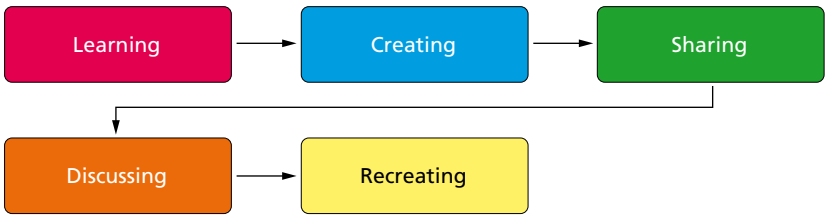
5

Experiences of Implementing Universities

Savitribai Phule Pune University, Pune

Tuning India Project was associated with formulating Degree Programme profiles. The project included specifying progamme competence and formulating programme learning outcomes. It was joint effort by the eminent team involved from across India. The associated faculties were experienced in the field of Teacher Education Program.

The participants' were briefed about the competence associated with different course of B.Sc. B.Ed. Program. There was discussion and exchange of thoughts that added to my existing knowledge. It was a great and experiential learning as all were involved with learning, creating, sharing and discussing. The above added to knowledge of all the participants.



I was continuously involved with discussion, sharing, and growing up my knowledge about the competencies (generic and specific). I learned how to distinguish between generic and specific competencies. My understanding helped me in Student Learning Guide. The association of other faculty helped me clear my doubts regarding generic and specific competencies.

Once there was clarity with the competencies it was helpful to formulate Learning Outcomes for Teacher Education Program. It was learning experience as Faculty were briefed about teaching strategies, different assessment methods, the Faculty were also briefed about revised Bloom's Taxonomy. The experience has helped me use my knowledge during actual teaching learning process.

The project was carried out by the effort of PMMMNMTT (Pandit Madan Mohan Malviya National Mission on Teachers and Teaching), School of Education. Skill development, employability, entrepreneurship, lifelong learning, well-being for all, happiness and wellness are core to ones living peacefully. We must instill values in teachers that foster such life for students in future. After knowing rightly about the competencies and learning outcomes in details I was happy that I would be able to inculcate such values among Teacher Educator, Pre-service teachers and also among my colleagues. My own learning experience after interaction and discussion was more valuable to me. The project has given me deep insight on the learning outcomes that are the necessary part of teaching learning process. It also helped me to know the differential assessment strategies that are necessary in order to assess the intended learning outcomes of various Teacher Education Programs. Faculty interaction and training the new generation of teachers is very necessary if we want to actually measure the intended learning outcomes.

I hope to attend more such endeavor where I get chance to enhance my capabilities, knowledge, skills.

The IIS University, Jaipur

The IIS University has always been regarded to be an institution that is conscious of the current global challenges including the global socio-

economic, political and cultural contexts, impact of the emerging information society, the technological advances, the democratization of educational opportunities, diversification in higher education in terms of its function, structure and organization, need for quality assurance, the aspirations of today's youth and the need for bringing forth creativity, innovation and research to solve the problems of today's world.

While at the institutional level we always keep in view various possibilities and priorities that help us to respond to these challenges, it is after we came in touch with the Tuning Project and interacted with different partners that we realized, how important it was to build compatible and comparable descriptions of degrees that are relevant to society and maintaining and improving quality in higher education.

Reflection and debate with different academic experts helped us to understand the scale, significance and complexity of the Tuning methodology and how it incorporates "standards".

We were drawn to its value very naturally and soon we understood that it was an endeavour to serve a unique purpose – identification of generic and subject specific competences, generation of a mutually agreed cumulative credit system for student mobility, exchange of good practices in teaching, learning, assessments and adopting quality assurance frameworks for better student learning.

The philosophy of "inclusiveness" and the collaborative methodology based on "consensus" kept our engagement and motivation high. We made efforts to understand the requirements of the project and the quality standards to be adhered to.

We managed various issues in the process such as preparation of meta profile, calculating the workload, designing a degree programme, deciding reference points etc. We completed all the tasks assigned to us and we are happy to see the tangible outputs.

Thanks to Tuning, we have a common language to discuss teaching, learning and assessment and we now look forward to capacity building within and outside of our institution to develop a learning culture and take up more collaborative work to improve student learning and post university experience.

G.D Goenka University, Sohna Gurugram

To start with a quote of BENJAMIN FRANKLIN "Tell me and I forget. Teach me and I remember. Involve me and I learn". -.

This quote aptly summarizes our journey with Tuning India.

The main objective of Tuning India Project is to build qualifications which are compatible, comparable, are relevant to society and with the best quality, while preserving the valuable diversity deriving from the traditions of each country involved. This objective resonates with the philosophy of School of Education which is diligently involved with Tuning India project for around four years. The School of Education has designed and implemented its B.Ed curriculum according to Tuning Approach. Our degree programmes are competence based and aim towards preparing professional global teachers. This project is all about dreaming and imagining ways in which current practices can be transformed and improved. I must say it is not only dreaming of the future, but of getting down to the work to make it a reality. Admittedly Tuning India project has given us a platform where we get the opportunity to interact, argue, collate and innovate. Especially The workshops, general meetings and policy forums all provide us various opportunities to share our ideas. This echoes the objectives of GD Goenka University which constantly remains in pursuit of excellence and the School of Education has earned it the status of one of the best schools for the programmes in education across the country. Faculty of School of Education is really proud to be a part of such an innovative and dynamic project as a subject expert (Education). This project will pave the way for internationalization of our University par excellence. We at G. D. Goenka University are proud to be a part of such an extremely prestigious global project. We are thankful to University of Deusto for giving us such a wonderful opportunity to innovate and collaborate. It is undoubtedly a great learning experience which is beneficial to students, faculty and university. This project is all about dreaming and imagining ways in which current practices can be transformed and improved. I must say it is not only dreaming of the future, but of getting down to the work to make it a reality. Admittedly Tuning India project has given us a platform where we get the opportunity to interact, argue, collate and innovate. Especially The workshops, general meetings and policy forums all provide us

various opportunities to share our ideas. In these workshops we acquire countless skills from colleagues and speakers. The activities are interactive and enriching as they have the participation of experts in their respective areas. Furthermore, working on student learning guide, designing meta-profile and writing reference points all are great learning experiences. The faculty gets a chance to share ideas with their colleagues of SAG. We all are a part of a big academic family now. To paraphrase a popular saying, what's good for the students is good for the university.

Jagaran Lakecity University, Bhopal

The best way to predict your future is to create it…. Abraham Lincoln

The quote aptly echoes the growing need to bring changes in the nature of education we wish to see. As mentioned by Andrea Bandelli (2017), the skills needed to work today change so fast that no education system can keep up with the constant need to reinvent how we work and live together. Most importantly, the radical changes in our society mean that young people need new kinds of skills, many of which are not even fully understood or codified for learning. Today, the new fluencies we need include emotional intelligence, intercultural sensitivity, creativity, problem formulation (rather than problem solving), economic citizenship, empathy, adaptability and resilience. The Tuning India Project is very much focussed on these lines.

In this regard, I am happy to share my learnings from the Tuning India Project. To begin, this was my first hands-on experience working in the prestigious international project in the field of education. The core objective of the Tuning India Project is to build qualifications which are compatible, comparable, relevant to society and with the best quality, while preserving the valuable diversity deriving from the traditions of each country involved. This project is all about dreaming and imagining ways in which current practices can be transformed and improved. I must say it is not only dreaming of the future, but of getting down to the work to make it a reality. This objective resonates with the philosophy of School of Education which is diligently involved with the Tuning India project for around four years.

Admittedly, the Tuning India project has given us a platform where we get the opportunity to interact, argue, collate and innovate. The

workshops, general meetings and policy forums all provide us various opportunities to share our ideas. This echoes the objectives of our Jagran Lakecity University (JLU), Bhopal which constantly remains in pursuit of excellence and the School of Education has earned it the status of one of the best schools for the programmes in education across the country. The School of Education at our university has designed and implemented its B.Ed. curriculum according to the Tuning Approach. Our degree programmes are competence based and aim towards preparing professional global teachers. Our Faculty of School of Education at JLU, Bhopal is really honored to be a part of such an innovative and dynamic project in the field of Education. This project will pave the way for internationalization of our university par excellence. We at JLU are proud to be a part of such an extremely prestigious international project. We are thankful to University of Deusto for giving us such a wonderful opportunity to innovate and collaborate. It is undoubtedly a great learning experience which is beneficial to students, faculty and university. This project is all about dreaming and imagining ways in which current practices can be transformed and improved. I must say it is not only dreaming of the future, but of getting down to the work to make it a reality.

Further, I wish to mention that during the completion of the Tuning project, the world witnessed the emergence of Covid -19. It has had a huge impact on the lives of millions across the world. Education is undeniably crucial in contributing to a country's welfare and an individual's growth, but it was jeopardized by the closure of schools and colleges equally hampered by the economic crisis, which reduced its output. According to studies, the epidemic has denied almost 32 crore students of an education. This is being referred to as a national crisis, with an increase in unemployment as a result.

In March 2020, a nationwide lockdown was imposed, forcing some schools and colleges to close and instructing students to abandon the usual classroom teaching style. In spite of these challenges, I am happy to mention that our team of tuning India project continued our efforts This resulted in an immediate increase in innovation and technology, which we teachers used to finish the project work. The long hours online workshops and meetings are unforgettable and the initial experiences of struggling using the online platform and issues faced with the internet connectivity will remain with us in our memories.

The Tuning India project has given me a platform where I got the opportunity to interact, contend, collate and innovate. Especially the online workshops, general meetings and policy forums all provide me various opportunities to share my ideas. In these online and offline workshops, I attained vital professional skills from colleagues and speakers. The learning activities are interactive and very enriching as they have the participation of experts in the respective areas. Furthermore, working on student learning guides, designing meta profiles of 21st century teachers and writing reference points all are great learning experiences. I also got a chance to share my thoughts and fresh ideas with our counterparts from other partner universities. I am proud to be a part of a big global academic family now.

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