Draft

Curriculum and Credit Framework for Post Graduate Programmes

THE KERALA STATE HIGHER EDUCATION COUNCIL

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Documentation Division
May 2025

Published by The Kerala State Higher Education Council
Science and Technology Museum Campus, Vikas Bhavan P.O.,
Thiruvananthapuram-695033, Kerala State, India
www.kshec.kerala.gov.in
Phone: 0471- 2301293, Fax: 0471 2301290

Published in 2025

The Perspective

We acknowledge the time lag in keeping pace with the latest trends in higher education, both regionally and nationally. In fact, many institutions around the world face similar challenges.Through the implementation of the Four-Year Undergraduate Programme (FYUP) curriculum framework, we have narrowed this gap to some extent by prioritising learning over teaching.

Our perspective on the curriculum framework for differently structured postgraduate programmes is centred on enhanced self-learning. Furthermore, we recognise that students raised with constant exposure to LCD screens—the upcoming generation known as Gen Alpha—will soon enter the tertiary sector of education. They require not only advanced tools and rapidly evolving technologies but also flexible, interconnected, and personalised digital experiences tailored to their individual interests and learning preferences.

"Gen Alpha" demand for such personalised digital experiences will reshape the higher education landscape, and institutions must be prepared. Institutional preparedness requires a complete reimagining of education, embracing unprecedented levels of flexibility, learner autonomy, and a deep trust in both technology and human potential. Educators of tomorrow will be AI-powered designers of learning experiences, critical guides in the process of meaning-making, and empathetic mentors in an otherwise impersonal digital world. Professors must evolve into facilitators who create environments where students can explore and learn independently using digital tools and gamified content.

Although our immediate focus is on addressing the needs of current graduates—many of whom are still adapting to Gen Z's AI-assisted, self-directed learning strategies—we are also anticipating the expectations of Gen Alpha. We caution that universities and colleges must overhaul their curricula to emphasise AI-enabled instructional design and immersive virtual or mixed reality learning environments.

Prof. Rajan Gurukkal
Vice Chairman
Kerala State Higher Education Council

Curriculum and Credit Framework for Post Graduate Programmes

1.0 Introduction

Kerala has been at the forefront of higher education reforms, consistently working towards enhancing accessibility, equity, and academic excellence. The state's higher education sector has witnessed significant progress over the past decade, as reflected in the steady rise of its Gross Enrolment Ratio (GER) from 22.1% in 2012–13 to 43.2% in 2020–21. In alignment with this growth, Kerala has undertaken multiple academic and administrative reforms to modernize its higher education landscape. Initiatives such as the Choice-Based Credit Semester System (CBCSS), the Single Window System (SWS) for admissions, and the modernization of examination processes have played a crucial role in ensuring a more flexible and student-centric learning environment.

Building on the comprehensive undergraduate (UG) curriculum reforms introduced in the 2024–2025 academic year, Kerala is now implementing a revised postgraduate (PG) curriculum framework. The new framework is designed to strengthen subject knowledge, foster critical thinking, and promote interdisciplinary and research-oriented learning. It aims to bridge the gap between knowledge acquisition and knowledge creation, equipping students with the necessary skills to excel in academia, industry, and research.

A key feature of the revised PG curriculum is the introduction of work-integrated and research-integrated programs alongside traditional two-year postgraduate courses. Additionally, a one-year PG program is being introduced for students who have completed a four-year undergraduate degree, aligning Kerala's higher education system with global standards. The emphasis on experiential learning, industry collaboration, and innovation ensures that students receive a well-rounded education that enhances their employability and research capabilities.

In light of the transformative shift towards Industry 5.0 and Education 5.0, the revised postgraduate curriculum framework aims to foster a human-centric, technology-augmented, and purpose-driven education system. Industry 5.0 emphasizes the collaboration between humans and intelligent systems, promoting creativity, personalization, sustainability, and social responsibility in work and learning environments. Education 5.0 builds on this by focusing on learner empowerment, holistic development, inclusivity, and lifelong learning, while leveraging advanced technologies to personalize and enrich the educational experience.

The new PG curriculum integrates these principles by offering flexible and future-oriented learning pathways, including project-based learning, industry-integrated education, and research-driven modules. Students will have opportunities to engage in real-world challenges, work on interdisciplinary projects, and develop solutions that are innovative, ethical, and sustainable. Core components include the integration of emerging tools and technologies such as artificial intelligence, big data, blockchain, IoT, and immersive digital platforms, enabling personalized learning and adaptive assessment.

The curriculum prioritizes skill development, innovation, entrepreneurship, and well-being, ensuring that students are equipped not only for employability but also for leadership in shaping a resilient and equitable society. Learning will be more experiential, collaborative, and aligned with both individual potential and societal needs. Students will also be guided in the ethical, ergonomic, and safety aspects of technology use, enhancing their readiness for responsible participation in the knowledge economy.

Through these strategic reforms, the revised postgraduate curriculum not only aligns with the global transition to Industry 5.0 and Education 5.0 but also strengthens Kerala's vision of becoming a resilient, knowledge-driven society. It empowers learners to adapt to a rapidly changing world by fostering critical thinking, ethical reasoning, creativity, and technological competence. By embedding flexible learning pathways, project-based and research-oriented modules, and industry-integrated experiences, the curriculum ensures that students are equipped with both advanced skills and social responsibility. The focus on personalization, well-being, and lifelong learning further enhances students' ability to thrive in diverse

professional and academic contexts. This comprehensive framework bridges the gap between academia and real-world applications, making education more meaningful and impactful. In doing so, it reinforces Kerala's commitment to inclusive, sustainable, and globally competitive higher education. Ultimately, this curriculum aspires to position the state as a national leader in educational transformation rooted in human values and future-readiness.

1.1 Suggested credit requirement and eligibility for admission to a master's programme

- A student shall be eligible for admission to a postgraduate degree programme if he/she has passed a 3-year undergraduate degree (level 5.5, a total of 120 credits) / 4-year undergraduate degree with Honours/Honours with Research (level 6, a total of 160 credits).
- A student is directly eligible for a master's programme in a discipline corresponding to either major or minor(s) discipline in UG programme. If the admission is based on minor discipline, it is advisable that the student should have successfully completed 32 credits in that discipline (the maximum number of minor credits in the four-year programme).
- However, irrespective of the major or minor disciplines chosen by a student in a UG programme, a student is eligible for admission in any discipline of master's programme if the student qualifies the National level or University level entrance examination in the discipline of the master's programme
- In these cases, if the student has already completed 12 credits as minor in that discipline, he/she may be eligible to continue for the PG programme directly without any prerequisite.
- If the student has not studied that discipline earlier, then the BOS may suggest prerequisite papers, if required.
- Students who have completed a **four-year UG Honours** or **Honours with Research** degree are eligible for a **one-year PG program** if the general eligibility requirement of that PG program is "any degree."

- Students can also join a **one-year PG program in the same, relevant, or allied discipline** of their major discipline. Definition of Relevant/Allied Subject: A subject related to the main subject under consideration, either as a single discipline, multidiscipline, or inter-discipline.
- Students with a **minor discipline of 32 credits or more** may be eligible for a **one-year PG program in their minor discipline**, provided their major discipline is **allied or relevant** to the minor discipline. If the **minor discipline is not relevant or aligned** with the major discipline, students opting for a PG in their minor discipline will be required to complete a **two-year PG program** in that discipline
- Integration of higher education, vocational education, training & skilling, and internship shall be made as part of the PG curricular structure, in accordance with the Curriculum and Credit Frameworks for PG, and Apprenticeship Embedded Degree Programmes, notified by the UGC
- Mobility of a student from vocational education to general education or vice-versa, shall be as per the procedure prescribed in the relevant guidelines issued by the regulatory bodies concerned.
- A student can pursue two PG programmes simultaneously with flexibility in terms of change of discipline/institution/mode of learning as given in the UGC's Curriculum and Credit Framework for Postgraduate Programmes and Guidelines for Pursuing Two Academic Programmes simultaneously
- Learnings from multiple modes other than regular modes such as ODL, Online and RPL modes are creditizable through a well-defined assessment process. The credits obtained by the learner shall be incorporated in the transcripts that count for the final award of the degree. The guidelines/regulations notified by UGC from time to time on ODL, Online and RPL shall be applicable
- Students completing a 4-year undergraduate degree (Hons./Hons. with Research) in relevant subjects (level 6, e.g. B.Sc. Hons. in Physics, B.Sc. Hons. in Biology, B.Sc. Hons. in Mathematics) and students completing a 4-year undergraduate degree

(level 6, e.g. B.E., B. Tech., etc.) shall be eligible for the 2- year/4 semester postgraduate programme (level 7, e.g. M.E., M.Tech. etc.).

2.0 Recommended PG Programmes as per the Curriculum Framework

2.1 Two-Year PG Programme

Designed for students who have completed a **three-year Bachelor's programme**, this **two-year PG programme** aims to enhance academic depth, research capabilities, and employability.

- **First Year:** Focuses on **advanced coursework, skill development, and interdisciplinary learning**, equipping students with specialized knowledge and analytical abilities.
- **Second Year:** Entirely devoted to **research, internships, or apprenticeships**, providing hands-on experience, industry exposure, and practical application of theoretical concepts.

2.2 One-Year PG Programme

This one-year PG programme is designed for students who have completed a four-year Bachelor's programme with Honours/Honours with Research. It offers a focused academic pathway with: Specialization in advanced subject areas and Integration of research and practical applications leading to an accelerated transition to research or professional careers, aligning with global higher education trends.

2.3 Five-Year Integrated Bachelor's/Master's Programme

The five year integrated programmes Combines undergraduate and postgraduate studies into a single integrated pathway. It encourages early engagement in research and interdisciplinary learning. By providing a seamless academic progression from foundational to advanced learning.

2.4 PG curriculum Framework Alignment with UGC frame work

- Must align with the **National Higher Education Qualification Framework (NHEQF)**.
- Prescribed levels for PG programmes: **Level 6, Level 6.5, and Level 7**.
- Should be in sync with the **National Credit Framework (NCrF)** for flexibility and credit mobility.

3.0 Main Features of the PG Curriculum Framework

- **Flexibility in Discipline Selection** : Students can move from one discipline to another.UG graduates with a **major and minor(s)** can opt for PG studies in either their major, minor, or another subject if they demonstrate competence.
- **Choice-Based Learning**: Opportunity for students to choose courses based on their academic and career interests.
- **Flexible Learning Modes**: Options to study through offline, Open and Distance Learning (ODL), online learning, or hybrid modes.
- **Work-Integrated PG Programmes**: Incorporates internships, apprenticeships, and industry collaborations to enhance employability and practical skills.
- **Research-Integrated PG Programmes**: Focus on **advanced research**, enabling students to transition smoothly into research careers or doctoral studies.
- **Credit Mobility and Flexibility**: Aligns with the **National Credit Framework (NCrF)** to ensure seamless credit transfer and multidisciplinary learning.

4.0 Credit Requirement and Eligibility for PG Programmes

The postgraduate (PG) curriculum framework follows the **National Higher Education Qualification Framework (NHEQF)**, ensuring structured academic progression and credit-based eligibility.

4.1 Credit Requirements:

- **One-Year (Two-Semester) PG Programme (Level 6.5)**
  i) Requires a Bachelor's degree with Honours/Honours with Research.
  ii) Minimum 160 credits at the undergraduate level.
- **Two-Year (Four-Semester) PG Programme (Level 6.5)**
  i) Requires a Three-Year Bachelor's degree.
  ii) Minimum 120 credits at the undergraduate level.
- **Two-Year (Four-Semester) PG Programme (Level 7) for Professional Degrees**
  i) Requires a Four-Year Bachelor's degree (e.g., B.E., B.Tech.)
  ii) Minimum 160 credits at the undergraduate level.
  iii) Candidates who have completed 4-year UG programme or a 3 year UG and 2 year PG programme or 5 year integrated programme (UG + PG) in STEM subjects will be eligible for admission in M.E., M. Tech. in allied areas.

4.2 Eligibility Criteria:

- Students can pursue PG studies in either their major or minor disciplines from their UG programme.
- Universities and colleges can admit students based on:
  - UG performance or University-level entrance examination.
  - National-level entrance examination, which allows students from any UG discipline to enrol in a PG programme of their choice.

This structure provides flexibility, interdisciplinary mobility, and a merit-based admission process, ensuring accessibility to diverse learning pathways in higher education.

- A student is directly eligible for a master's programme in a discipline corresponding to either major or minor(s) discipline in UG programme. If the admission is based on minor discipline, it is advisable that the student should have successfully completed 32 credits in that discipline (the minimum number of minor credits in the four-year programme).
- However, irrespective of the major or minor disciplines chosen by a student in a UG programme, a student is eligible for admission in any discipline of master's programme if the student qualifies the National level or University level entrance examination in the discipline of the master's programme
- In these cases, if the student has already completed 12 credits as minor in a discipline, he/she may be eligible to continue for the PG programme directly then the BOS may suggest prerequisite papers, if required.

5.0 Generic Learning Outcomes at the Postgraduate Level

The **National Higher Education Qualification Framework (NHEQF)** outlines key learning outcomes for postgraduate (PG) education, ensuring students acquire **advanced knowledge, research skills, and professional competencies**.

1) **Advanced Knowledge and Critical Thinking**
   a) Develops an in-depth understanding of subject-specific theories, methodologies, and applications.
   b) Encourages **critical analysis, logical reasoning, and problem-solving** abilities.
2) **Research and Innovation**
   a) Strengthens **research methodologies**, enabling students to conduct independent investigations.
   b) Promotes innovation, creativity, and interdisciplinary collaboration.

3) **Professional and Practical Skills**

   a) Equips students with **specialized skills** relevant to academia, industry, and professional sectors.

   b) Emphasizes **work-integrated and research-integrated learning**, preparing students for real-world challenges.

4) **Communication and Leadership**

   a) Enhances effective communication, teamwork, and leadership abilities.

   b) Develops the capacity to **present, publish, and disseminate knowledge**.

5) **Ethics, Social Responsibility, and Lifelong Learning**

   a) Encourages **ethical decision-making** and responsible citizenship.

   b) Promotes lifelong learning, adaptability, and **continuous professional development**.

These outcomes ensure that PG graduates are well-prepared for **higher research, industry roles, and societal contributions**, making them valuable contributors to a knowledge-driven economy. Detailed learning outcomes for the PG programme are given in the National Higher Education Qualifications Framework. https://www.ugc.gov.in/pdfnews/2990035_Final-NHEQF.pdf

6.0 Graduate Attributes of PG Programmes

Postgraduate (PG) degrees signify the attainment of **advanced knowledge, critical thinking, and professional competencies** beyond the undergraduate level. According to the **National Higher Education Qualification Framework (NHEQF)**, graduates of PG programmes should demonstrate the following attributes:

1) **Advanced Knowledge and Understanding**

   a) Builds on undergraduate learning, extending into **specialized and research-based knowledge**.

   b) Encourages originality in developing and applying ideas, particularly in research contexts.

2) **Application of Knowledge and Problem-Solving**

   a) Ability to apply expertise in **new, unfamiliar, or multidisciplinary contexts**.

   b) Capable of addressing **complex real-world challenges** using analytical and innovative approaches.

3) **Integration of Knowledge and Ethical Judgment**

   a) Ability to handle **complex information** and make informed decisions even with limited data.

   b) Reflects on **social, ethical, and professional responsibilities** while applying knowledge.

4) **Communication and Leadership Skills**

   a) Effectively conveys ideas, research findings, and arguments to **specialist and non-specialist audiences**.

   b) Develops skills for teamwork, leadership, and interdisciplinary collaboration.

5) **Lifelong Learning and Autonomy**

   a) Acquires **self-directed learning skills** for continuous personal and professional growth.

6.1 Key Learning Descriptors:

i. Knowledge and Understanding

ii. Technical, General, and Professional Skills

iii. Application of Knowledge and Skills

iv. Generic Learning Outcomes

v. Ethical, Humanistic, and Constitutional Values

vi. Employability, Entrepreneurship, and Job-Ready Skills

These attributes ensure that PG graduates are well-equipped for higher research, industry roles, and societal contributions while upholding ethical and professional integrity.

7.0 Designs of Postgraduate Programme

The flexibility in postgraduate (PG) programme design allows for multiple pathways, including 1-year, 2-year, and integrated 5-year programmes. However, the diversity in undergraduate (UG) curricula, particularly in the 4-year UG programme, significantly expands the possible PG frameworks. The UG framework includes bachelor's (Hons.) and bachelor's (Hons. with Research) degrees, creditization of work experience, and interdisciplinary combinations involving emerging fields like AI and Machine Learning.

Given this complexity, higher education institutions (HEIs) must design PG curricula that align with the graduate attributes of each UG pathway. The variations in major-minor combinations, research-intensive courses, and interdisciplinary approaches necessitate multiple PG entry points and exit options. A student completing a 4-year UG with research may transition directly into a 1-year PG, while those with a 3-year UG may require a 2-year PG. Integrated 5-year programmes further enhance flexibility by offering seamless progression.

Thus, PG curricula should be structured to accommodate these diverse entry qualifications while ensuring academic rigor and employability. HEIs must adopt a credit-based approach, allowing for modular learning and lateral entry, ensuring that PG education remains inclusive, adaptable, and aligned with the evolving higher education landscape.

8.0 Curricular Components

8.1 Two year PG programme

The first two semesters of the two-year PG programme should be in line with that of the fourth year of the FYUGP programme implemented in the universities in Kerala.

The students who joined for the two- year PG Programme after three-year UG may be provided with three options at the end of the first year, such as,

(1) Exit after 1 year with a PG diploma

(2) Exit after 1 year with Honours Degree*

(3) Proceed to 2nd year to complete PG

- The students have to choose the option at the end of the first semester so that they can plan the second semester courses accordingly.
- In the first semester, all students should complete 3 courses in their major and 2 vocational courses related to their major discipline or in the interdisciplinary/ transdisciplinary, all at level 400.
- In the second semester, the students who wish to opt for PG diploma may take 5 courses (total 20 credits) at the level 400 and exit with a PG diploma. Out of these five courses, three courses shall be from the related vocational area and can be taken by online mode.
- In the second semester, the students who wish to opt for Honours Degree may take one course at level 400 and two courses at level 500 in online mode and opt to do an industry/ job-oriented project for 12 credits,
- The students who continue for the 2 year PG may do one course at level 400 and three courses at level 500 and the course at level 400 shall be taken by online mode.

The students who enter into the second year of the PG Programme have three optional pathways.

PG with course work : Postgraduate programmes with coursework allow students to complete their PG through structured courses in the third and fourth semesters. They may also opt for online courses or earn credits from national/international institutions through twinning, student exchange programs, or collaborations, ensuring academic flexibility, global exposure, and interdisciplinary learning opportunities.

PG with course work research/internship: Postgraduate programmes with coursework and research/internship require students to complete coursework in the third semester and engage in research, industry internship, or fieldwork in the fourth semester. This hybrid model ensures academic depth, practical exposure, and industry-relevant skills for enhanced career opportunities.

PG with Research/internship/apprentice ship : Postgraduate programmes with Research, Internship, or Apprenticeship require students to engage in these activities during the third and fourth semesters at an authorized research center, industry, or relevant institution. This ensures hands-on experience, skill development, and research exposure, enhancing employability and academic rigor in alignment with evolving industry and research needs.

8.2 One year PG Programme

The students who completed the four-year UG and wish to join for the PG may be integrated into the third and fourth semester of the 2-year PG programme. They may also be allowed to complete their PG in three different optional pathways, such as,

PG with course work : Postgraduate programmes with coursework allow students to complete their PG through structured courses in the third and fourth semesters. They may also opt for online courses or earn credits from national/international institutions through twinning, student exchange programs, or collaborations, ensuring academic flexibility, global exposure, and interdisciplinary learning opportunities.

PG with course work research/internship: Postgraduate programmes with coursework and research/internship require students to complete coursework in the third semester and engage in research, industry internship, or fieldwork in the fourth semester. This hybrid model ensures academic depth, practical exposure, and industry-relevant skills for enhanced career opportunities.

PG with Research/internship/apprentice ship : Postgraduate programmes with Research, Internship, or Apprenticeship require students to engage in these activities during the third and fourth semesters at an authorized research center, industry, or relevant institution. This ensures hands-on experience, skill development, and research exposure, enhancing employability and academic rigor in alignment with evolving industry and research needs.

Note: Those students who have not done any project during their Honours Programme may be directed to opt for the pathway as PG with Course Work and Research/internship.

The students who have completed UG Honours with Research may be given preference to opt for the PG with Research.

8.3 Five year Integrated Programme (UG+PG):

The five-year Integrated Programme shall be designed for a total of 217 credits. Students may exit after three years with a UG Degree upon earning 133 credits or after the fourth year with an Honours/Honours with Research Degree upon earning 177 credits. This ensures flexibility while maintaining academic rigor.

8.4 vocational courses

All postgraduate programmes must include vocational courses worth a minimum of 8 credits at the 400 level, relevant to the chosen discipline. These courses should qualify students for Vocational or Skill Certification from empaneled skill agencies or industries, enhancing employability and industry readiness through practical skill development.

9.0 Credit distribution.

9.1 **Two year PG programme**

Curricular Components	**PG Programme for 3 year UG students Minimum Credits**			
	Course Level	Credits from courses	Credits from projects	Total Credits
First Year ((1st 2nd Semesters)				
1 year	400 500	24 16		40
Second Year ((3rd & 4th Semesters)				
Option 1 Course work with Research/internship	500	20	20	40
Option 2 Research/internship			40	40
Option 3 Course work	500	40	0	40

b) For 1-year PG

Curricular Components	**PG Programme (one year) for 4-yr UG (Hons. / Hons. with Research) Minimum Credits**			
	Course Level	Credits from Courses	Credits from Project	Total Credits
Course work with Research	500	20	20	40
Research/internship/apprenticeship			40	40
Course work	500	40	0	40

c) For Standalone or Lateral entry PG diploma Programmes

Curricular Components	**Lateral entry to PG programmes for PG Diploma for 3 UG students Minimum Credits**			
	Course Level	Credits from courses	Credits from projects	Total Credits
First Year ((1st 2nd Semesters)				
1 year with PG Diploma	400	40		40

As per the National Higher Education Qualification Framework (NHEQF) and the National Credit Framework (NCrF), students completing a three-year undergraduate programme (Level 5.5) are eligible to progress to Level 6, which includes either a Bachelor's Degree with Honours (four-year UG) or a Postgraduate Diploma. In this context, universities in Kerala offering standalone PG Diploma programmes must align them with the NHEQF's Level 6 credit and outcome structure.

Universities may also consider integrating these PG Diploma programmes into their existing two-year postgraduate programmes. A flexible curriculum structure can be adopted where students in both tracks take common core courses in the first semester. Those opting for the PG Diploma exit may be offered more Level 400 papers focused on advanced skills and practical training.

The revised structure should be outcome-based, with clearly defined credits (–40 credits), learning outcomes, and opportunities for credit accumulation and transfer through the Academic Bank of Credits. This approach will enhance academic mobility, improve employability, and ensure national equivalence of qualifications. Universities are encouraged

to initiate curriculum revision and redesign of PG Diploma programmes to meet these standards and support seamless learner progression.

d) Lateral entry to PG programme to exit with a honours Degree

Curricular Components	**Lateral Entry to PG Programmes for Honours level (for the Three year UG students in the existing system) Minimum Credits**			
	Course Level	Credits from courses	Credits from projects	Total Credits
First Year ((1st 2nd Semesters)				
Exit with Honours	400 500	24 8	12	44

Providing Honours Degree Option for Graduates of the Earlier 3-Year UG Programme

In alignment with the implementation of the Four-Year Undergraduate Programme (FYUGP), it is proposed that students who completed their undergraduate degrees under the earlier three-year structure be given an opportunity to obtain a Bachelor's Degree with Honours, if they so wish.

These students may be allowed to enrol in select courses from the first year of the two-year PG programme or standalone PG Diploma programmes, ensuring academic continuity and alignment with the NHEQF Level 6. In addition to coursework, they must complete a 12-credit research or applied project in the second semester to demonstrate depth of knowledge and skills.

To qualify for the award of the Honours degree, students must also complete three add-on courses focusing on life skills, personal development, and employability, and two value-added courses aimed at enhancing their overall competency and career readiness. These courses can be offered as non-credit modules, preferably in online, blended mode, or through Centre for Skill Development Courses and Career Planning (CSDCCP) functioning in affiliated colleges.

Completion of these additional courses will be a mandatory requirement for the conferment of the UG Honours degree. This pathway ensures academic flexibility, supports lifelong learning, and enhances the employability and skill profile of graduates who wish to upgrade their qualifications in line with the new national framework.

The proposed credit structure for this pathway is provided in the above table.

10.0 Course Levels

400-499: Advanced courses which would include lecture courses with practicum, seminarbased course, term papers, research methodology, advanced laboratory experiments/software training, research projects, hands-on-training, internship/apprenticeship projects at the undergraduate level or First year Postgraduate theoretical and practical courses

500-599: For students who have graduated with a 4-year bachelor's degree. It provides an opportunity for original study or investigation in the major or field of specialization, on an individual and more autonomy.

11.0 Course Categories & Credit Distribution

11.1 Core Courses

Core courses in postgraduate programs encompass **fundamental disciplinary knowledge, advanced theoretical concepts, and specialization courses**, constituting **50% of the total credits**. Out of the **minimum 80 credits** required for a PG program, **40 credits** are allocated to core courses. Within this, **12 credits** are specifically earmarked for **specialization**, ensuring in-depth expertise in a chosen area. This structure balances **foundational learning and advanced specialization**, fostering both **academic rigor and practical applicability**. By allocating **30% of core course credits to specialization**, universities can enhance subject mastery while maintaining a strong disciplinary foundation aligned with **UGC guidelines**

11.2 Elective Courses

Elective courses in a postgraduate program include **open electives** that span **interdisciplinary, cross-disciplinary, and intra-disciplinary choices**, promoting academic flexibility and broader learning. These courses allow students to explore subjects beyond their core discipline, fostering a **multidisciplinary perspective**. As per the framework, **15% of the total credits** in a **two-year PG program** should be allocated to **open electives**. For a program with a **minimum of 80 credits**, **12 credits** are designated for these courses. This approach enhances **interdisciplinary**

11.3 Integrating Research, Internships, and Project Work in PG Programs

To enhance innovation, applied research, and social engagement, postgraduate (PG) students may undertake research internships, fieldwork, industry internships, or apprenticeships in their final semester. It is proposed that 25% of the total credits in a two-year PG program be allocated to such experiential learning. Given that the minimum credit requirement for a two-year PG program is 80 credits, 20 credits may be reserved for research and internship-based activities This initiative fosters practical exposure, skill development, and industry-academia collaboration, ensuring students gain hands-on experience in real-world problem-solving. By integrating research components within the curriculum, students are better equipped for careers in academia, industry, and entrepreneurship. Additionally, engaging in field-based projects strengthens their capacity for critical thinking and interdisciplinary research. Universities may design flexible mechanisms to implement this, allowing students to undertake research under faculty supervision or through collaborations with industry and research institutions.

11.4 Integration of Future-Ready Skills in PG Curriculum

To equip postgraduate (PG) students with cutting-edge competencies, 10% of the total credits in PG programs should be allocated to future-ready skill courses. With a minimum credit requirement of 80 credits, 8 credits may be earmarked for training in emerging technologies such as Artificial Intelligence, Cybersecurity, Internet of Things (IoT), Big Data Analytics, Blockchain, Intelligent Automation, Augmented Reality, and 3D Printing.

These skill-based courses will enhance employability, innovation, and interdisciplinary expertise, preparing students for industry, research, and entrepreneurship. The curriculum should incorporate hands-on training, industry collaborations, and project-based learning to ensure practical application. Universities should establish dedicated training modules, workshops, and partnerships with technology firms to deliver these courses effectively.

12.0 **Flexibility in Postgraduate Programmes**

Flexibility is the hallmark of this curriculum framework, ensuring diverse learning opportunities for students. Postgraduate programmes offer multiple options, including enrolling in online courses, pursuing two PG degrees simultaneously, and creditizing work experience. Fully online PG programmes enable learners to balance education with professional commitments. Students can pursue two academic programmes in different modes: (1) two full-time physical programmes with no class timing overlap, (2) one full-time physical programme and one ODL/online programme, or (3) two ODL/online programmes. Only HEIs recognized by UGC/Statutory Councils/Government of India can offer ODL/online degrees, ensuring academic credibility and quality.

12.1 Creditization of Work Experience in Postgraduate Education

Learnings achieved outside of formal learning or through learning and training in the workplace or in the community shall be based on the validation of prior learning outcomes achieved. Such individuals with experience and expertise in any particular profession shall be assessed by the recognized higher education institutions as per the UGC “Guidelines for Implementation of Recognition of Prior Learning (RPL) in Higher Education, as amended from time to time.

The integration of relevant work experience into postgraduate education enhances flexibility and holistic learning. The National Credit Framework (NCrF) allows for assigning academic credits to professional experience gained after completing an educational programme. If a learner’s work experience aligns with the PG programme they wish to pursue, it can be creditized through an assessment process. Higher Education Institutions (HEIs) can adjust the programme duration based on this evaluation.

The maximum credit weightage for work experience is capped at two (2), meaning a candidate may earn credits equal to their base qualification or skill if they have substantial work experience. Credit redemption follows the assessment bands specified in NCrF and aligns with Academic Bank of Credit (ABC) guidelines, facilitating both horizontal and vertical mobility in education. This system enables learners to enter higher education at multiple levels through lateral entry options, ensuring academic progression and industry-aligned skill recognition.

12.2 Credit Assignment for relevant experience / proficiency

Experience cum Proficiency Levels	Description of the relevant Experiential learning including relevant experience and professional levels acquired and attaining proficiency levels	Weightage/ multiplication Factor	No. of years of experience (Only indicative)
Trained/ Qualification attained	Someone who has completed the coursework/ education/ training and has been taught the skills and knowledge needed for a particular job or activity	1	Less than or equal to 1 year
Proficient	Proficient would mean having the level of advancement in a particular profession, skillset, or knowledge	1.33	More than 1 less than or equal to 4
Expert	Expert means having high level of knowledge and experience in a trade or profession	1.67	More than 4 less than or equal to 7
Master	Master is someone having exceptional skill or knowledge of a subject/domain	2	More than 7

The credit assignment for relevant work experience or proficiency is indicative and can be customized by universities in consultation with the relevant Board of Studies, industries, and empanelled skilling agencies. Institutions may develop a structured mechanism to identify skill sets relevant to specific PG programmes.

This mechanism will enable the recognition of industry, research, and technical experience, allowing universities to award appropriate credits based on expertise gained in a particular

field. By integrating professional experience into academic credit systems, this approach enhances the flexibility and accessibility of higher education, fostering a seamless transition between industry and academia.

12.3 Plagiarism Check

The Higher Education Institution concerned shall have a mechanism using well-developed software applications to detect plagiarism in research work and the research integrity shall be an integral part of all the research activities.

13.0 Strategies for Effective Assessment of Learning Outcomes in PG Programmes in Kerala

Assessment should emphasize formative and continuous evaluation over traditional summative assessment. For PG programmes, the assessment scheme must include both types, with 30% weightage for formative assessment and 70% for summative assessment, ensuring alignment with learning outcomes.

13.1 Strategies for Effective Assessment:

1. **Outcome-Based Assessment:** Align assessments with specific learning outcomes, ensuring students develop critical thinking, research skills, and domain expertise.
2. **Diverse Assessment Methods:** Use a mix of assignments, case studies, presentations, research projects, and problem-based assessments.
3. **AI and Digital Tools:** Implement AI-based analytics for personalized feedback, automated grading, and progress tracking.
4. **Continuous Evaluation:** Conduct periodic quizzes, peer reviews, and reflective journals to track progress.
5. **Industry and Research Integration:** Encourage internships, apprenticeships, and fieldwork assessments.
6. **Competency-Based Evaluation:** Assess skills through practical, simulations, and real-world applications.

7. **Online and Hybrid Assessments:** Utilize digital platforms for flexibility, accessibility, and remote evaluations.

These strategies will enhance learning experiences and improve the effectiveness of PG assessments in Kerala's higher education institutions.

13.2 Letter Grades and Grade Points

The Semester Grade Point Average (SGPA) is computed from the grades as a measure of the student's performance in a given semester. The SGPA is based on the grades of the current term, while the Cumulative GPA (CGPA) is based on the grades in all courses taken after joining the programme of study. The HEIs may also mention marks obtained in each course and a weighted average of marks based on marks obtained in all the semesters taken together for the benefit of students.

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

13.3 Computation of SGPA and CGPA

UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

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

i.e. SGPA (Si) = ∑(Ci x Gi) / ∑Ci

Where Ci is the number of credits of the ith course and Gi is the grade point scored by the student in the ith course.

Example for Computation of SGPA

Semester	Course	Credit	Letter Grade	Grade Point	Credit × Grade Point
1	Course 1	3	A	8	3 × 8 = 24
1	Course 2	4	B+	7	4 × 7 = 28
1	Course 3	3	B	6	3 × 6 = 18
1	Course 4	3	O	10	3 × 10 = 30
1	Course 5	3	C	5	3 × 5 = 15
1	Course 6	4	B	6	4 × 6 = 24
Total		20			139
SGPA					139/20 = 6.95

ii. The Cumulative Grade Point Average (CGPA) is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme,

i.e. CGPA = ∑(Ci x Si) / ∑ Ci

where Si is the SGPA of the ith semester and Ci is the total number of credits in that semester.

Example for Computation of CGPA

Semester	Credit	SGPA
Semester 1	20	6.9
Semester 2	20	7.8
Semester 3	20	5.6
Semester 4	20	6
Total Credits	80	
CGPA	(20 × 6.9 + 20 × 7.8 + 20 × 5.6 + 20 × 6.0) / 80 = 6.6	

14.0 Transcript (Format): Based on the above recommendations on Letter grades, grade points and SGPA and CCPA, the HEIs may issue the transcript for each semester and a consolidated transcript indicating the performance in all semesters

References:

1. Shyam B Menon commission report

2. National Credit Framework (NCrF) (https://www.ugc.gov.in/pdfnews/9028476_Report-of-National-Credit-Framework.pdf)

3. The National Higher Education Qualifications Framework (NHEQF) (https://www.ugc.gov.in/pdfnews/2990035_Final-NHEQF.pdf)

4. Curriculum and Credit Framework for Undergraduate Programmes. (https://www.ugc.gov.in/pdfnews/7193743_FYUGP.pdf)

5. Kerala state higher education curriculum frame work for Four year under graduate Programme

6. Kerala state model regulations for four year under graduate programmes

7 Guidelines & curriculum frame work for restructuring the BVoC programmes

8 UGC Curriculum and Credit Framework for Postgraduate Programmes

9 UGC (Minimum Standards of Instruction for the Grant of Undergraduate Degree and Postgraduate Degree) Regulations, 2025

Annexture 1 : Suggested Course Structure per Semester for two-Year PG Programmes (Course + Project Pathway)

Semester	Category of Course	Course Level	Credit of course	Total number of Course	Total credit	
1	DSC	400	4	3	12	20
	DS(E/OE)	400	4	1	4	
	FSC	400	4	1	4	
2	DSC	500	4	3	12	20
	DS(E/OE)	500	4	1	4	
	FSC	400	4	1	4	
3 Project +Course	DSC	500	4	4	16	20
	DS(E/OE)	500	4	1	4	
4 Project +Course	Project	500	20	1	20	20
Total				15 course+1 projects		80

Note on additional available l Pathways for the Second Year of Two-Year PG Programmes (3rd and 4th Semesters)

In the first and second semesters of the two-year PG programmes, each student is required to complete a total of 40 credits, of which at least 4 credits must be earned through online mode.

In alignment with the National Higher Education Qualification Framework (NHEQF), the second year (3rd and 4th semesters) of the Two-Year PG Programmes may offer students flexible academic pathways, similar to the options available in One-Year PG programmes. These include the Course + Project Pathway, Course-Only Pathway, and Research Pathway, enabling learners to customize their academic experience based on career goals.

In the Course + Project Pathway, students complete 20 credits in the 3rd semester from five discipline-specific courses, including one on Research Methodology. The 4th semester is dedicated to a Master's Thesis or Major Project of 20 credits, allowing focused research or applied learning.

In the Course-Only Pathway, students complete 20 credits in each of the 3rd and 4th semesters through advanced Level 500 courses, deepening subject expertise and broadening academic scope.

The Research Pathway includes specialized coursework and a longer-term research component, supporting progression to Ph.D. or research careers.

These flexible pathways ensure that all students, irrespective of their academic background or aspirations, have opportunities for skill development, research engagement, and employability enhancement

Annexture 2 : Suggested Course Structure per Semester for One-Year PG Programmes (Course + Project Pathway)

Semester	Category of Course	Course Level	Credit of course	Total number of Course	Total credit	
3 Project +Course	DSC	500	4	4	16	20
	DS(E/OE)	500	4	1	4	
4 Project +Course	Project	500	20	1	20	20
Total				5 course+1 projects		40

Note on Pathways for One-Year Postgraduate Programmes

The one-year postgraduate (PG) programme offers flexible academic pathways aligned with the National Higher Education Qualification Framework (NHEQF) Level 6. Students can choose between two structured options: Course + Project Pathway and Course-Only Pathway. Additionally, a Research Pathway is available for those aiming for advanced research-oriented careers.

In the Course + Project Pathway, students are required to complete 20 credits in the first semester through five discipline-specific courses, one of which must be Research Methodology. In the second semester, students must undertake a Master's Thesis or Major Project carrying 20 credits, allowing them to apply their learning in a research or application-based setting.

In the Course-Only Pathway, students must complete 20 credits in the second semester through five Level 500 courses in addition to the 20 credits completed in the first semester. This pathway emphasizes domain expertise and advanced coursework across two semesters.

The Research Pathway is designed for students with strong research inclinations. It includes advanced coursework and an extended research component aligned with faculty expertise and institutional research priorities, preparing students for doctoral studies or research careers.

The Kerala State Higher Education Council
Science and Technology Museum Campus,
Vikas Bhavan P.O., Thiruvananthapuram-695033,
Kerala State, India
www.kshec.kerala.gov.in