INdIA RANKINGS 2021

NATIONAL INSTITUTIONAL RANKING FRAMEWORK

Methodology for Ranking of Academic Institutions in India

(RANKING METRICS FOR PHARMACY)

Ministry of Human Resource Development
### Summary of Ranking Parameters and Weightages - 2021

**(Pharmacy)**

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<td>Teaching, Learning &amp; Resources</td>
<td>100</td>
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<td>2</td>
<td>Research and Professional Practice</td>
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</table>
| 1.     | **Teaching, Learning & Resources (TLR)**  
        | **Ranking weight: 0.30**              | 100   |
|        | A. Student Strength including Doctoral Students (SS): 20 marks |       |
|        | B. Faculty-student ratio with emphasis on permanent faculty (FSR): 30 marks |       |
|        | C. Combined metric for Faculty with PhD (or equivalent) and Experience (FQE): 20 marks |       |
|        | D. Financial Resources and their Utilization (FRU): 30 marks |       |
| 2.     | **Research and Professional Practice (RP)**  
        | **Ranking weight: 0.30**              | 100   |
|        | A. Combined metric for Publications (PU): 35 marks |       |
|        | B. Combined metric for Quality of Publications (QP): 40 marks |       |
|        | C. IPR and Patents: Published and Granted (IPR): 15 marks |       |
|        | D. Footprint of Projects and Professional Practice (FPPP): 10 marks |       |
| 3.     | **Graduation Outcomes (GO)**  
        | **Ranking weight: 0.20**              | 100   |
|        | A. Combined metric for Placement and Higher Studies (GPH): 40 marks |       |
|        | B. Metric for University Examinations (GUE): 15 marks |       |
|        | C. Median Salary (GMS): 25 marks |       |
|        | D. Metric for Number of Ph.D. Students Graduated (GPHD): 20 marks |       |
| 4.     | **Outreach and Inclusivity (OI)**  
        | **Ranking weight: 0.10**              | 100   |
|        | A. Percentage of Students from other States/Countries (Region Diversity RD): 30 marks |       |
|        | B. Percentage of Women (Women Diversity WD): 30 marks |       |
|        | C. Economically and Socially Challenged Students (ESCS): 20 marks |       |
|        | D. Facilities for Physically Challenged Students (PCS): 20 marks |       |
| 5.     | **Perception (PR)**  
        | **Ranking weight: 0.10**              | 100   |
|        | A. Peer Perception: Employers & Academic Peer (PR): 100 marks |       |
1. Teaching, Learning & Resources (TLR): 100 marks

- Ranking weight: 0.30
- Overall Assessment Metric:
  \[ TLR = SS \times 20 + FSR \times 30 + FQE \times 20 + FRU \times 30 \]
- Component metrics based on:
  
  A. Student Strength including Ph.D. Students: SS
  B. Faculty-Student Ratio with emphasis on permanent faculty: FSR
  C. Combined metric for Faculty with PhD (or equivalent) and Experience: FQE
  D. Financial Resources and Their Utilisation: FRU
A. Student Strength including Ph.D. students (SS): 20 Marks

- **SS** = \( f(N_T, N_E) \times 15 + f(N_p) \times 5 \)

- The functions \( f(N_T, N_E) \) and \( f(N_p) \) are functions to be determined by NIRF.
- \( N_T \): Total sanctioned approved intake in the institution considering all UG and PG programs of the institution
- \( N_E \): Total number of students enrolled in the institution considering all UG and PG Programs of the institution.
- \( N_p \): Total number of students enrolled for the doctoral program till previous academic year.

- **Primary Data: To be provided in a prescribed Format.**
B. Faculty-Student Ratio with emphasis on permanent faculty (FSR): 30 marks

- \( \text{FSR} = 30 \times [15 \times (F/N)] \)
- \( N = N_T + N_p \)
- F: Full time regular faculty in the institution in the previous year.
- Regular appointment means Faculty on Full time basis. Faculty on contract basis/ad-hoc basis will be considered if the concerned faculty has taught in both the semesters of academic year 2019-20.
- Faculty members with Ph.D. and M.Pharm/Ph.D. will be considered and counted here. Faculty member with a Bachelor’s degree will not be counted.
- Expected ratio is 1:15 to score maximum marks.
- For \( F/N < 1: 50 \), FSR will be set to zero.
- *Primary Data: Faculty List to be provided in the Prescribed Format.*
C. Combined Metric for Faculty with PhD (or equivalent) and Experience (FQE): 20 marks

- \(F_Q = 10 \times \left(\frac{F_{RA}}{95}\right), \quad F_{RA} < 95\%;\)
- \(F_Q = 10, \quad F_{RA} \geq 95\%.

Here \(F_{RA}\) is the percentage of Faculty with Ph.D. (or equivalent qualification) with respect to the total no. of faculty required or actual faculty whichever is higher, in the previous year.

\[F_1=\text{Fraction with Experience up to 8 years};\]
\[F_2=\text{Fraction with Experience between 8+ to 15 years};\]
\[F_3=\text{Fraction with Experience > 15 years}.\]

- \(\text{FE} = 3\min(3F_1, 1) + 3\min(3F_2, 1) + 4\min(3F_3, 1)\)
  Rationale: Full marks for a ratio of 1:1:1
- \(\text{FQE} = F_Q + \text{FE}\)
- \text{Primary Data: Faculty List in the Prescribed Format.}\)
D: Financial Resources and their Utilization (FRU): 30 Marks

- FRU = 7.5 \times f(BC) + 22.5 \times f(BO)

- BC: Average Annual Capital Expenditure per student for the previous three years pertaining to pharmacy discipline only. \textbf{(Excluding expenditure on construction of new buildings)}

- BO: Average Annual Operational (or Recurring) Expenditure per student for the previous three years pertaining to pharmacy discipline only. \textbf{(Excluding maintenance of hostels and allied services)}

- \textit{Primary Data: Figures in prescribed format for each activity.}
2. Research and Professional Practice (RP): 100 marks

- Ranking weight: 0.30
- Overall Assessment Metric:
  \[ \text{RP} = \text{PU}(35) + \text{QP}(40) + \text{IPR}(15) + \text{FPPP}(10) \]
- The component metrics explained on following pages.
  
  A. Combined Metric for Publications: PU
  B. Combined Metric for Quality of Publications: QP
  C. IPR and Patents: Patents Published and Granted: IPR
  D. Footprint of Projects and Professional Practice: FPPP
A. Combined metric for Publications (PU): 35 marks

- PU = 35 × f(P/F_{RQ})
- P is weighted number of publications as ascertained from suitable third party sources.
- F_{RQ} is the maximum of nominal number of faculty members as calculated on the basis of a required FSR of 1:15 or the available faculty in the institution.
- Sources: Third Party Sources.
B. Combined metric for Quality of Publications (QP): 40 Marks

• \( QP = 20 \times f(\frac{CC}{FRQ}) + 20 \times f(\frac{TOP25P}{P}) \)

• Here CC is Total Citation Count over previous three years.

• P is as computed for PU.

• TOP25P: Number of citations in top 25 percentile averaged over the previous three years.

• \( FRQ \) is the maximum of nominal number of faculty members as calculated on the basis of a required FSR of 1:15 or the available faculty in the institution.

• Primary Data: Third Party Sources.
C. IPR and Patents: Patents Published and Granted (IPR): 15 marks

- IPR = IPG + IPP

- IPG = 10× f(PG)

- PG is the number of patents granted over the previous three years.

- IPP = 5 × f(PP)

- PP: No. of patents published over the previous three years.

*Primary Data: Third Party Sources.*
D. Footprint of Projects and Professional Practice (FPPP): 10 marks

- FPPP = FPR + FPC

- FPR = 7.5 × f (RF)

- RF is average annual research funding earnings (amount actually received in rupees) per faculty at institute level in the previous three years.

- FPC = 2.5 × f (CF)

- CF is average annual consultancy amount (amount actually received in rupees) per faculty at institute level in the previous three years.
3. Graduation Outcome (GO): 100 marks

- Ranking weight: 0.20

- Overall Assessment Metric:

  \[ GO = \text{GPH}(40) + \text{GUE}(15) + \text{GMS}(25) + \text{GPHD}(20) \]

- The component metrics are explained on the following pages:
  
  A. Combined metric for Placement and Higher Studies: GPH
  B. Metric for University Examinations: GUE
  C. Median Salary: GMS
  D. Metric for Number of Ph.D. Students Graduated: GPHD
A. Combined Metric for Placement and Higher Studies (GPH): 40 marks

- GPH = 40 × (\(N_p/100 + N_{hs}/100\))
- \(N_p\) = Percentage of graduating students (in UG/PG programs) placed in the previous three years.
- \(N_{hs}\) = Percentage of graduating students (in UG/PG programs) who have been selected for higher studies in the previous three years.

- *Primary Data: To be provided in prescribed format.*
B. Metric for University Examinations (GUE): 15 Marks

- \[ \text{GUE} = 15 \times \min \left( \frac{N_g}{80}, 1 \right) \]

- \( N_g \) is the percentage of Students (as a fraction of the approved intake), averaged over the previous three years, passing the respective university examinations in stipulated time for the program in which enrolled.

- *Primary Data: To be provided in prescribed format.*
C. Median Salary(GMS): 25 Marks

- \( \text{GMS} = 25 \times f(\text{MS}) \)

- \( \text{MS} = \) median salary of graduates (in UG / PG programs) in the previous three years from an institution.

- *Primary Data: To be provided in prescribed format*
D. Metric for Number of Ph.D. Students Graduated (GPHD): 20 Marks

- \( GPHD = 20 \times f(N_{phd}) \)

- \( N_{phd} = \) Average number of Ph.D. students graduated (awarded Ph.D.) over the previous three years.

- *Primary Data: Number of graduating Ph.D. Students as reflected in the approved Annual Report/Convocation Report to be provided in the prescribed format.*
4. Outreach and Inclusivity (OI): 100 marks

- Ranking weight: 0.10
- Overall Assessment Metric: \( OI = RD(30) + WD(30) + ESCS(20) + PCS(20) \)
- The component metrics are explained on following pages:
  
  A. Percentage of Students from other States/ Countries (Region Diversity): RD
  B. Percentage of Women (Women Diversity): WD
  C. Economically and Socially Challenged Students: ESCS
  D. Facilities for Physically Challenged Students: PCS
A. Percentage of Students from other States/ Countries (Region Diversity RD): 30 marks

• \( \text{RD} = 25 \times \text{fraction of total students enrolled from other states} + 5 \times \text{fraction of students enrolled from other countries} \)

• *Primary Data: To be provided in the prescribed format.*
B. Percentage of Women (Women Diversity WD): 30 marks

- \( WD = 15 \times (N_{WS}/50) + 15 \times (N_{WF}/20) \)

- \( N_{WS} \) are the percentage of Women students.

- \( N_{WF} \) are the percentage of Women Faculty including the women members in senior administrative positions, such as Heads of Departments, Deans or Institute Heads.

- Expectation: 50% women students and 20% women faculty.

- *Primary Data: To be provided in the prescribed format.*
C. Economically and Socially Challenged Students (ESCS): 20 marks

- \( \text{ESCS} = 20 \times f(N_{\text{esc}}) \)

- \( N_{\text{esc}} \) is the percentage of UG students being provided full tuition fee reimbursement by the institution to pursue their degree programs.

- *Primary Data: To be provided by the institution in a prescribed format.*
D. Facilities for Physically Challenged Students (PCS): 20 marks

• PCS = 20 marks, if the Institute provides full facilities for physically challenged students, as outlined.
  
  Else, in proportion to facilities.

• Basis: Verifiable Responses to Questions.

• **Primary Data: To be provided in a prescribed format.**
5. Perception (PR) – 100 marks

- Ranking weight: 0.1
- Overall Assessment Metric: PR = 100
- Component metrics are explained in the following pages:
A. Peer Perception: Employers & Academic Peer (PR) : 100 marks

- This is to be done through a survey conducted over a large category of Employers, Professionals from Reputed Organizations and a large category of academics to ascertain their preference for graduates of different institutions.
- Comprehensive list will be prepared taking into account various sectors, regions, etc.
- Lists to be updated periodically.