INDIA RANKINGS 2020

NATIONAL INSTITUTIONAL RANKING FRAMEWORK

Methodology for Ranking of Academic Institutions in India

(RANKING METRICS FOR MEDICAL)

Ministry of Human Resource Development
## Summary of Ranking Parameters and Weightages - 2020

**Medical**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Parameter</th>
<th>Marks</th>
<th>Weightage</th>
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<tbody>
<tr>
<td>1</td>
<td>Teaching, Learning &amp; Resources</td>
<td>100</td>
<td>0.30</td>
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<td>2</td>
<td>Research and Professional Practice</td>
<td>100</td>
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<td>3</td>
<td>Graduation Outcomes</td>
<td>100</td>
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<td>A. Student Strength including Doctoral Students(SS): 20 marks</td>
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<td>B. Faculty-student ratio with emphasis on permanent faculty (FSR): 30 marks</td>
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1. **Teaching, Learning & Resources (TLR): 100 marks**

   - Ranking weight: 0.30
   - Overall Assessment Metric:
     \[
     TLR = SS (20) + FSR (30) + FQE (20) + FRU (30)
     \]
   - 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 (MS/MD/DNB/MCh/DM) (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 (MS/MD/DNB/MCh/DM) 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

- FSR = $30 \times [15 \times (F/N)]$

- $N = N_{r} + N_{p}$

- 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 2018-19.

- Faculty members with Ph.D. and Master’s degree 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 MS/MD/MDS/DNB/MCh/DM) and Experience (FQE): 20 marks

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

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.

Here F is the percentage of Faculty with Ph.D. (or equivalent qualification), over the previous 3 years.

F1=Fraction with Experience up to 8 years;
F2= Fraction with Experience between 8+ to 15 years;
F3=Fraction with Experience > 15 years.

- \( FE = 3 \min(3F_1, 1) + 3 \min(3F_2, 1) + 4 \min(3F_3, 1) \)

Rationale: Full marks for a ratio of 1:1:1

- \( FQE = FQ + FE \)

- Primary Data: Faculty List in the Prescribed Format.
D: Financial Resources and their Utilisation (FRU): 30 Marks

- **FRU** = 7.5×f(BC) + 22.5×f(BO)

- **BC**: Average Annual Capital Expenditure per student for previous three years pertaining medical discipline only. (*Excluding expenditure on construction of new buildings*)

- **BO**: Average Annual Operational (or Recurring) Expenditure per student for previous three years pertaining medical discipline only. (*Excluding maintenance of hostels and allied services*)

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

- Ranking weight: 0.30
- Overall Assessment Metric:
  \[ RP = PU (40) + QP (40) + IPR (10) + FPPP (10) \]
- 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: Published and Granted: IPR
D. Footprint of Projects, Professional Practice: FPPP
A. Combined metric for Publications (PU): 40 marks

- **PU = 40 \times 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

- \[ QP = 20 \times f \left( \frac{CC}{F_{RQ}} \right) + 20 \times f \left( \frac{TOP25P}{P} \right) \]

- Here CC is Total Citation Count over previous three years.
- P is as computed for PU.
- \( F_{RQ} \) 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.
- TOP25P: Number of citations in top 25 percentile averaged over the previous three years.

- Primary Data: Third Party Sources.
B. IPR and Patents: Patents Published and Granted (IPR): 10 marks

- IPR = IPG + IPP

  IPG = 5 \times f (PG)

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

  IPP = 5 \times f (PP)

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

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

- FPPP = FPR + FBD
- FPR = 5 \times f (RF)
  - RF is average annual research funding earnings (amount actually received in rupees) per faculty at institute level in previous three years.
- FBD = 5 \times f (PBD)
  - PBD is percentage of bed occupancy in day.
3. Graduation Outcome (GO): 100 marks

- Ranking weight: 0.20
- Overall Assessment Metric:
  \[ GO = GPH(30) + GUE(30) + GPHD(30) + GSS(10) \]
- 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. Metric for Number of Ph.D. Students Graduated: GPHD
  D. Metric for number of Super Specialty Students Graduated: GSS
A. Combined Metric for Placement and Higher Studies (GPH): 30 marks

- \( GPH = 30 \times \left( \frac{N_p}{100} + \frac{N_{hs}}{100} \right) \)

- \( N_p = \) 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.

- \textit{Primary Data: To be provided in a prescribed format}
B. Metric for University Examinations (GUE): 30 Marks

- \[ \text{GUE} = 30 \times \min \left( \frac{N_g}{80}, 1 \right) \]

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

- *Primary Data: To be provided in a prescribed format.*
C. Metric for Number of PG Students Graduated (GPHD): 30 Marks

- \[ \text{GPHD} = 30 \times f(N_{\text{phd}}) \]

- \( N_{\text{phd}} \) = Average number of PhD (PhD/MD/MS/DNB) students graduated 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.*
E. Metric for Number of Super Specialty Students Graduated (GSS): 10 Marks

- \( \text{GSS} = 10 \times f(Nss) \)

- \( Nss = \text{Average number of Super Specialty (MCh/DM) students graduated over the previous three years.} \)

- *Primary Data: To be provided in a 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

- 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

- \[ WD = 15 \times \left(\frac{N_{WS}}{50}\right) + 15 \times \left(\frac{N_{WF}}{20}\right) \]

- \( N_{WS} \) 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

- ESCS = 20 × f(N_{esc})

- \( N_{esc} \) 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 Peers (PR): 100 marks
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.