INDIA RANKINGS 2021

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 - 2021
(Medical)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Parameter</th>
<th>Marks</th>
<th>Weightage</th>
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</thead>
<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>
<td>0.30</td>
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<td>3</td>
<td>Graduation Outcomes</td>
<td>100</td>
<td>0.20</td>
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<td>Outreach and Inclusivity</td>
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<td>1.</td>
<td><strong>Teaching, Learning &amp; Resources (TLR)</strong>&lt;br&gt;<strong>Ranking weight: 0.30</strong></td>
<td>100</td>
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<tr>
<td></td>
<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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<td>C. Combined metric for Faculty with PhD (or equivalent) and Experience (FQE): 20 marks</td>
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<td>D. Financial Resources and their Utilization (FRU): 30 marks</td>
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<td>B. Combined metric for Quality of Publications (QP): 40 marks</td>
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<td>C. IPR and Patents: Published and Granted (IPR): 10 marks</td>
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<td>D. Footprint of Projects and Professional Practice (FPPP): 10 marks</td>
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<td>A. Percentage Students from other States/Countries (Region Diversity RD): 30 marks</td>
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<td>B. Percentage of Women (Women Diversity WD): 30 marks</td>
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</table>
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_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 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

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

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.

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

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

- \( FE = 3\min(3F_1, 1) + 3\min(3F_2, 1) + 4\min(3F_3, 1) \)
  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 = $7.5 \times f(BC) + 22.5 \times f(BO)$

- 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:
  \[ \text{RP} = \text{PU} (40) + \text{QP} (40) + \text{IPR} (10) + \text{FPPP} (10) \]
- 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: Published and Granted: IPR
D. Footprint of Projects, Professional Practice: FPPP
A. Combined metric for Publications (PU): 40 marks

- \( \text{PU} = 40 \times f(P/F_{RQ}) \)
- \( P \) 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

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

- 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.
C. IPR and Patents: Patents Published and Granted (IPR): 10 marks

- IPR = IPG + IPP

  IPG = $5 \times f(\text{PG})$

- PG is the number of patents granted over the previous three years.
  IPP = $5 \times f(\text{PP})$

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

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

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

- Ranking weight: 0.20

- Overall Assessment Metric:

  \[ \text{GO} = \text{GPH}(25) + \text{GUE}(25) + \text{GPG}(30) + \text{GSS}(20) \]

- 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. Metric for Number of PG Students Graduated: GPG
  D. Metric for number of Super Specialty Students Graduated: GSS
A. Combined Metric for Placement and Higher Studies (GPH): 25 marks

- \[ \text{GPH} = 25 \times \left( \frac{N_p}{100} + \frac{N_{hs}}{100} \right) \]

- \( N_p \) = 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.

- *Primary Data: To be provided in a prescribed format*
B. Metric for University Examinations (GUE): 25 Marks

- \[ \text{GUE} = 25 \times \min \left( \frac{N_g}{80}, 1 \right) \]

- \( N_g \) 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.

- \textit{Primary Data: To be provided in a prescribed format.}
C. Metric for Number of PG Students Graduated (GPG): 30 Marks

- \( \text{GPG} = 30 \times f(N_{pg}) \)

- \( N_{pg} \) = Average number of PG students (MD/MS/DNB) students graduated over the previous three years.

- *Primary Data: To be provided in a prescribed format.*
D. Metric for Number of Super Specialty Students Graduated (GSS): 20 Marks

- GSS = 20 \times f(Nss)

- Nss = 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

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

- \textit{Primary Data: To be provided in the prescribed format.}
B. Percentage of Women (Women Diversity WD): 30 marks

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

- \text{N}_{\text{WS}} are the percentage of Women students.

- \text{N}_{\text{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.

- \textit{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 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.