

# **Maharani's Science College for Women**

**Jhansi Lakshmi Bai Road  
Mysore 570 005, INDIA**

**PROPOSAL FOR AUTONOMOUS STATUS**

**2013**

**Submitted to the  
University Grants Commission (UGC), New Delhi,  
India**

# 1 About the Institution

## 1.1 Background of the institution

Maharani's Science College for Women, Mysore, is an institution, which is more than a century old. It is housed in a heritage building. It began as a primary school for 28 girls in 1881 and it became a college in 1917. In the year 1979, the college was bifurcated into Maharani's Science College for Women and Maharani's Arts College for Women, to accommodate growing number of students seeking admission. The college now offers both undergraduate and post graduate courses. Maharani's Science College for Women is an institution funded and managed by the State Government. The college has 20 departments including 5 departments of languages. In total it offers 20 combinations. The college also offers six PG courses and BCA course along with six add-on courses. Most of the students of the college are from rural and socially disadvantaged sections. Without this college at least 10% would have discontinued their studies. Hence the college feels that it is the moral obligation of the college to provide the best facilities available elsewhere. Hence the institution is making all efforts in developing the college as the center for excellence. The college is aware of the fact that 'Quality movement is a journey, a continuum. It is not an ad-hoc initiative, but is a fabric of planned actions threaded together over time.' The college having taken cognizance of this has planned and implemented several activities and has made a sincere effort to move towards excellence with total commitment of involving all the stake holders. The college in its journey towards excellence is approaching the UGC for assistance, since the college has all the potential to become a center for excellence. So, our move is towards getting autonomous status. The college:

1. Has excellent teaching faculty consisting of 110 dedicated teachers. Of them 47 are Ph.Ds and most of them are actively pursuing research. Two teachers of our college have received young scientist awards.
2. All most all the departments have well equipped labs, which are developed over years.
3. The college has made a name for its commitment and hence the strength of the college is regularly increasing, which has reached 1700 this year.
4. The result of the college is very good. It is well above the university average and the proportion of students with distinction is quite high. The result of post graduate courses is also very good. Very often university toppers are from our college. This year Microbiology department bagged 5 ranks.
5. The college has emerged as a cultural center, which organizes cultural activities. These are some of the eagerly awaited events in the Mysore city itself. Stalwarts in the respective cultural fields have participated in the programme

6. The college is struggling towards achieving the overall development of students, hence organizes many programmes like personality development programme, training students for competitive examinations and others.
7. The college has many active forums to involve students of various interests and create a platform for them, like Science forum, Nature Club, Film Club, Lalitha Kala Sangha and different subject forums.
8. The college has an active Placement Cell, which not only organizes campus selections but also trains the students by organizing training programmes.
9. The college is also actively training students for competitive examination, the quality of which is well appreciated.
10. Post graduate students are also trained for NET/ KSET/ GATE examinations to qualify them for teaching in UG and PG and research. The institution is aware of the fact that the colleges are the foundations of higher education as the primary schools are for school education therefore qualitative development of the colleges should be the top priority.

## **1.2 Information based on criteria**

### **1. Academic reputation and provisions (performance in university examinations and other academic activities)**

The result of the college is very good. Not only the overall result is much higher than the university average, but also top ranks in many courses are bagged by the students of our college in university examinations. The list is enclosed (Enclosure-1).

### **2. Academic attainments of the staff.**

Most of the teachers are actively involved in research. They have published articles in national and international journals of repute. They have received best paper awards. They have published books which includes original works and translations. A few of the teachers have been invited as resource persons for national conferences and workshops. Two teachers have received young scientist award and a teacher has a patent for her research work. Many of the teachers are invited by other colleges and institutions to deliver special lectures and as resource persons.

### **3. Mode of selection of students and teachers.**

Selection of the students is based on merit and roster system. Government norms are strictly followed. Selection of teachers is through KPSC selection, which is strictly based on merit and reservation policy of the Government.

4. Physical facilities i.e., library, accommodation and equipment.

- The college is housed in area of 4.2 acres. Physical infrastructure of the college
- Laboratory: The college has in total 25 labs.

S. No	Department	No of labs
1	Physics	3
2	Microbiology	2+1
3	Chemistry	3+1
4	Computer science	2
5	Botany	2
6	Zoology	2+1
7	Biotechnology	1
8	Electronics	1
9	Biochemistry	1
10	Statistics	1
11	Food Science	2
12	Sericulture	1
13	Geology	1

- Library: The College has a well managed library with books for both UG and PG students from reputed national and international publishers, available both for issue as well as reference. It is also provided with internet facility allowing students to have the knowledge of recent developments in their respective fields. Books were acquired using the UGC and State govt. grants assistance. Details of the grants received and books purchased are furnished below: Total number of books at the end of this academic year

Source	No. of Books
UGC	4843
Gift	1650
General	32,763
ST/ SC	1750
Total	41,006

5. Institutional management.

- The college comes under the Department of Collegiate education. The State Government takes care of appointment of the staff. As per the need, required staff is provided either
- through transfer or through fresh appointment. At present there are 103 permanent teaching staff and 38 permanent non-teaching staff in the college.
- The college has College Development Council to supervise and guide the activities of the college with local MLA as its chairperson. This also looks into means and ways of mobilizing funds for the college
- The college has a council too, which includes the heads of all the departments. It meets on a regular basis and takes decisions pertaining to the diurnal activities of the college and also other long term decisions.
- Other than these committees, to facilitate the smooth functioning of the college in a democratic and transparent way, different committees like Purchasing Committee, UGC committee, Students Union, Staff Association and alumni associations are constituted.
- To take care of the routine activities of the college committees like Examination Committee, Admission Committee, Cultural Committee, Time- table Committee are constituted.
- To harness and hone co curricular interests of the students various clubs like Nature Club, Film Club, and Science Forum are also formed.

5. Financial resources, the management can provide for the development of the institution:

- Since it is a government college the government is providing all the financial assistance required for infrastructure and salary of the staff, laboratory and library. The government has shown its willingness to get the status of autonomy for the college. It has already sanctioned 5 acres of land for the college for its future development.
- CDC is also active in mobilizing resources for the development of the institution. Local MP, MLA and MLC's are helping the institution in building the infrastructure of the college. The funds donated by them in the past few years give an idea of their contribution.
- The MP of the region gave funds from his fund to build the Kalamantap
- The MLC has donated 5 lakhs for building vehicle stand to make room for students vehicles
- The MLC has donated 20 lakhs for the construction of a well furnished canteen

- The college is now building an additional rest room for students in the hostel from the MP fund
6. The responsiveness of the administrative structure to the views of staff and students. Since the autonomy provides the necessary freedom for the academic development and experiment the teachers are willing to go for autonomy. Since most of the teachers are actively involved in research they are eager to start new courses and involve in research activities.
7. Extent of freedom enjoyed by the staff for advanced scholarships, research and experimentation and involvement in educational innovation and reforms:
- Teachers are encouraged to take up research activities, and they will be deputed to take up research work regularly. Every year teachers are taking up research work under faculty improvement program.
  - The college is bringing out a magazine "Shodha" to share findings of teachers with their fellow researchers.
  - They are encouraged to take up minor and major research works. Around 20 teachers are involved in minor research work and two major research work.
  - Teachers are encouraged to attend seminars, conferences and other such programmes
  - Teachers of PG Chemistry, Microbiology and Applied Zoology have been guiding the PG students to carry out mini projects pertaining to their M.Sc., dissertation (Term work and Project work). The results of many of them have been presented by the students in national conferences.
  - The college is trying to get the status of a research institute so that, the teachers can start guiding students for their doctoral research.

### **1.3 Implementation of autonomy**

#### **1.3.1 Aims and objectives**

1. The main aim of the college is to become the centre for higher learning to those women student who are socially disadvantaged and even among them the most disadvantaged and are deprived of higher education because of various socio-economic reasons.
  - To provide them with the best of learning ambience by providing divergent and relevant academic courses and the best infrastructure on par with the ones available elsewhere so that, even the students from the rural and socially disadvantaged groups are not deprived of those facilities. To achieve this goal new courses are

to be opened and a more scientific teaching and evaluation system has to be introduced, which is possible only with autonomy. The college is interested in enrichment and development of academic, cultural, scientific and technical resources of the college and to develop the institution as a centre of academic, culture and research activities.

- Start new courses at UG level, which are specifically useful to girl students.
  - To start new PG courses so that, students get more opportunities to pursue higher studies, which they are denied off.
  - Certificate and diploma courses, which are academically and socially relevant and value addition to the present learning.
  - To restructure the syllabus so as to suit the vision of the college. For instance the language content can be restructured to create: gender sensitisation among the students, awareness about women empowerment by including success stories of women achievers, awareness about various gender-specific problems and the means to surmount them, awareness of constitutional rights and legal aid, an awareness of the various dimensions of violence on women and its impact on the larger society - in the curriculum. At the same time language skills are taught in such way that it equips them to feel confident to face the challenges of academics and also job market.
  - Develop innovative community linkage activity
  - Innovative system of evaluation can be thought of :- It plans to prepare question bank covering the entire syllabus and different types of questions like short answer questions, multiple choice questions, quizzes and digitalise the same, which will be made available to the students through website. The question paper is generated an hour before the commencement of the exam. This will encourage teachers to complete the syllabus and also help the students to take many self examinations. The same question bank can be used to conduct tests, assignments etc by making question bank dynamic.
2. To include courses like physical education and performing arts, community services as part of the course so that the present activities like sports, NSS will be much more meaningful and effective.
  3. Using the status of autonomy to develop the college into a research centre so that our teachers can pursue their research and also help their students to involve in research.
  4. The college will get extra grant from UGC for many activities and extension program

## 2 Management of the college:

### 2.1 Governing body

#### 2.1.1 Functions:

Subject to the existing provision in the bye-laws of respective college and rules laid down by the state government, the governing body of the above colleges shall have powers to:

1. Fix the fees and other charges payable by the students of the college on the recommendations of the Finance Committee.
2. Institute scholarships, fellowships, studentships, medals, prizes and certificates on the recommendations of the Academic Council.
3. Approve institution of new programmes of study leading to degrees and/or diplomas.
4. Perform such other functions and institute committees, as may be necessary and deemed fit for the proper development, and fulfill the objectives for which the college has been declared as autonomous.

Number	Category	Nature
Three members, one of them to be chairperson	Educationist, industrialist, professional	Nominated by the state government. Persons of proven academic interest with at least PG level qualification.
Two members	Teachers of the college	Nominated by the Principal based on seniority.
One member	Educationist or industrialist	Nominated by the Principal based on seniority for two years.
One member	UGC nominee	Nominated by the UGC.
One member	State government nominee	Nominated by the state government.
One member	University nominee	Nominated by the university.
One member	Principal of college	Ex-officio.

### 2.2 Academic Council:

#### 2.2.1 Structure and functions

The Academic Council shall be in charge of the academic affairs of the institution

1. It shall have the right to advise the Principal on all academic matters.
2. The Academic Council shall consist of the following members, namely:
  - The Principal.
  - The Dean.
  - Five members
  - Special invitees

### **2.2.2 Powers of the Academic Council.-**

The Academic Council shall, subject to the provisions of this Act and the Statutes, have the power, by Regulations, of prescribing all courses of study and of determining curricula and have general control on teaching, research, and extension education within the institution and be responsible for the maintenance of standards thereof.

1. It shall have power to make Regulations consistent with this Act and the Statutes relating to all matters subject to its control and to amend or repeal such Regulations.
2. In particular and without prejudice to the generality of the foregoing power, the Academic Council shall have power,-
  - to advise the Board on all academic matters, including the control and management of libraries;
  - to make regulations regarding examinations conducted by the college and the conditions on which students shall be admitted to such examinations;
  - to make regulations relating to courses of study leading to degrees, diplomas and certificates;
  - to make recommendations regarding post-graduate teaching, research and extension education;
  - to exercise such other powers and perform such other duties as may be conferred or imposed on it by or under the provisions of this Act.

### **2.3 The Boards of Studies:**

There shall be a separate Board of Studies for Under Graduate and Post Graduate programs. The Board of Studies is the basic constituent of the academic system of an autonomous college. Its functions will include framing the syllabi for various courses, reviewing and updating syllabi from time to time, introducing new courses of study, determining details of continuous assessment, recommending panels of examiners under the semester system, etc. The powers and functions of the Board of Studies shall be as prescribed by the Statutes.

1. The composition of the Board of Studies for Under Graduate programs shall be as follows namely:-
  - Chairperson for a period of two years on rotational basis.
  - Three members not below the rank of associate professor, nominated by the principal
  - Two experts in the subject from outside the college to be nominated by the Academic Council.
  - One expert to be nominated by the vice-chancellor from a panel of six recommended by the college principal.
  - One representative from industry/corporate sector/allied area relating to placement.
  - One postgraduate meritorious alumnus to be nominated by the principal. The chairman, Board of Studies, may with the approval of the principal of the college, co-opt:
  - Experts from outside the college whenever special courses of studies are to be formulated.
  - Other members of staff of the same faculty
2. The functions of Board of Studies for under graduates programs shall be as follows, namely:-
  - prepare syllabi for various courses keeping in view the objectives of the college, interest of the stakeholders and national requirement for consideration and approval of the Academic Council;
  - suggest methodologies for innovative teaching and evaluation techniques;
  - suggest panel of names to the Academic Council for appointment of examiners; and
  - coordinate research, teaching, extension and other academic activities in the department/college.
  - To discharge such other functions as may be assigned to it by the Academic Council or principal;

## **2.4 Other committees:-**

The college will, in addition, have other non statutory committees such as the Planning and Evaluation Committee, Grievance Appeal Committee, Examination Committee, Admission Committee, Library Committee, Student Welfare Committee, Extra-Curricular Activities Committee and Academic Audit Committee.

## **2.5 Admission eligibility**

As per University and State government regulations

## **2.6 Curricular programme**

The college will start:-

1. Many more undergraduate courses in applied sciences;
2. Postgraduate courses in other disciplines;
3. Certificate and diploma courses in various fields like Art appreciation, Computational Statistics, ICT, Vermiculture, Web designing, Medicinal plants, Communication skills, Spoken English, Museology, Tissue culture, Biostatistics and Bioinformatics, L<sup>A</sup>T<sub>E</sub>X and many more.

### **2.6.1 Student feedback:**

Students feedback is collected at three levels and analyzed 1. Entry level feedback : During Orientation Program, when they join the college 2. Feedback on teachers at the end of the academic year: This will be tabulated; the department level and college level average is calculated for the meaningful comparison. 3. At the end of the program, feedback on the course is taken

## **2.7 Finance Committee:**

The Finance Committee will advise the Governing Body on financial matters and shall meet at least twice a year.

## **2.8 Internal assessment:**

To evaluate its academic performance, improvement of standards, and assess the extent and degree of success in the utilization of autonomy, Self-evaluation will be made annually.

## **3 Basic information:**

1. Name of college: Maharani's Science College for Women, JLB Road, Mysore
2. Name of principal: H B Mallikarjuna Swamy
3. Telephone/fax/email: 0821-2420503

4. Year of establishment: 1917
5. Whether private/government/university maintained: Government institution
6. Year of grant of permanent affiliation: 06-06-1986
7. Courses offered:

UG B.Sc and BCA-20 combinations are offered  
 PG: (Six courses) Applied Zoology, Biochemistry,  
 Botany, Chemistry, Mathematics,  
 Microbiology

8. Student enrolment during last three years:

Year	UG	PG
2011	1295	101
2012	1414	104
2013	1526	177

9. Faculty strength category-wise: (Please enclose list of faculty with their qualifications/ papers /books/ monographs if published-list enclosed)
10. Administrative, laboratory and library staff: 38
11. Results during the last five years:

Year	UG			PG	
	First year	Second year	Third year	First year	Second year
2008	95.11	96.11	90.84		
2009	77.73	77.82	98.61		
2010	82.37	78.32	85.00	100%	100%
2011	66.67	72.13	84.36	100%	100%
2012	84.53	92.84	90.87	100%	100%

Ranks:

(a) M.Sc, Microbiology

i. 2009: First Rank: P.V Bhavani; Second Rank: Padmavathi

- ii. 2010: Third rank: N. Vinutha; Fourth rank: Amrutha, N.
- iii. 2011: First Rank: Tabassum Firdose; Second Rank: Ramya R. Bhat; Third rank: Sakina Shams; Fourth rank: Chris Cheritha and Sixth rank: Divya, S.
- iv. 2012: First Rank: Teresa Shalini; Second Rank: Maria Sheeba Nazreth

12. Number of M.Phil. / Ph.D.s produced during the last three years:

Subject Year M.Phil / Ph.D.

13. List of journals in the library:

- Indian Journal of Chemistry Section -A
- Indian Journal of Chemistry Section -B
- Current Science
- Journal of Indian Chemical Society
- International Journal of pure and Applied Chemistry
- International journal of synthesis and characterization
- Indian Journal of Micro-Biology
- Indian journal of experimental biology
- Indian Journal of Medical Micro-Biology
- Indian Phytopathology

14. List of major items of equipment in the college (costing more than Rs. 50,000/-each):

Name of the Equipment	Numbers
Gradient Thermal Cycler	01
PCR Machine	02
Gel Documentation Unit	01
BOD Incubator	03
Cooling Incubator	03
UV- Vis Spectrophotometer	06
Visible Spectrophotometer	08
Binocular Research Microscope	20
Stereomicroscope	20
Cooling Centrifuge	02
Deep freezer -300C	03
High speed Centrifuge	04
Flame Photometer	02
GM counter	04
Digital water baths	04
Laminar Air Flow cabinet	04
Water Quality Analyzer	01
Bacteriological Incubator	04
Trinocular Research Microscope with Camera	02
Double distillation unit	03

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