

# **STUDENT'S HAND BOOK**

**Ph.D. in Mathematics (with Course Work)**

**M. Sc. (Mathematics)**

**B.Sc. (Hons.) in Mathematics**



**2022-23**

**Department of Mathematics  
(DST-FIST Sponsored)**

**Guru Ghasidas Vishwavidyalaya**

(A Central University established by the Central University Act, 2009)

**Koni, Bilaspur (C.G.) - 495 009**

**Personal Details**

Name : .....

Course : .....

Father's Name : .....

Mother's Name : .....

Date of Birth : .....

Blood Group : .....

Permanent Address : .....

.....

Local Address : .....

.....

Mobile.....

E-mail.....

Local Guardian : .....

Person to contact : .....( in case of emergency)

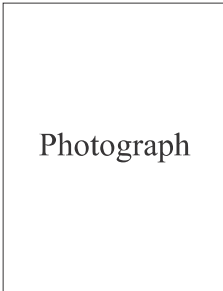
Telephone/ Mobile : .....

Other information : .....

Signature of Local Guardian

Student's Signature

Note: To be filled by the student and submitted in the office.



## About the University



**Guru Ghasidas Vishwavidyalaya**, a Central University of India, located in Bilaspur, Chhattisgarh State, established under Central Universities Act 2009, No. 25 of 2009. Formerly called Guru Ghasidas University (GGU) established by an Act of the M.P. State Legislative Assembly on June 16, 1983. GGU is an active member of the Association of Indian Universities and Association of Commonwealth Universities. The National Assessment & Accreditation Council (NAAC) has accredited the University as B+. Situated in a socially and economically challenged area, the University is appropriately named to honor the great Satnami Saint Guru Ghasidas (born in 17<sup>th</sup> century), who championed the cause of down trodden and waged a relentless struggle against all forms of social evils and injustice prevailing in the society. The lush green sprawling campus of the university spread over an area of 875 acres is located 5 K.M. away from the main Bilaspur town, the city of Bilasa. The river Arpa, the lifeline of Bilaspur runs parallel to the university campus.

The city is well connected with all parts of country by road, rail and by Air. Being a railway Zone, Bilaspur facilitates travel by train to and from any part of country.

The University is a residential cum affiliating institution. The University covers almost the total spectrum of higher education, University Teaching Department offering various courses in area of Arts, Commerce, Education, Engineering and Technology, Law, Humanities, Life Sciences, Management, Pharmacy, Physical Sciences and Social Sciences.

## **Department Profile**

The Department of Pure and Applied Mathematics, one of the premier Departments of University, started functioning in the year 1989 and is gradually emerging as an excellence centre for research and teaching, where the students are attracted from different parts of the country.

The Department initially started with Ph.D. and M.Phil. in Mathematics and post graduate courses were introduced in the academic session 1995-96. After upgradation of this university into Central University in 2009, Integrated UG/PG programme in Mathematics was introduced.

The image of any teaching institute is framed through the quality of its faculty, the Department is proud to have highly qualified and acclaimed faculty members. The Department is having thirteen teaching faculty, including two professors. The diversity of the research areas of our faculty makes this Department unique in itself. The Department offers teaching and research programs in the areas of Algebra, Analysis, Differential Geometry, Fuzzy logic, Approximation theory and Fixed point theory under the active guidance of dedicated faculty members.

The Department was selected by International Centre for Theoretical Physics (ICTP), Italy for implementing the federation scheme.

Department is striving very hard to improve the quality of education to stand as one of the leading education centres in the country. Students from the department are encouraged to appear in national level examinations like, NET, GATE and JAM etc. We express our deep desire to work with the new students to make their lives brighter.

**WE WELCOME YOU TO OUR DEPARTMENT**

---

---

## Faculty Members



E-mail: [asranadive04@yahoo.co.in](mailto:asranadive04@yahoo.co.in)  
☎ +91-9407600463

### **Prof. A. S. Ranadive**

**Ph.D. (1993) GGU, Bilaspur**  
**Professor and Dean**

**Research Interest:** Algebra, Fixed point theory, Fuzzy logic, Fuzzy algebra

**Publications: 46** (National and International)



E-mail: [ppmurthyggv@gmail.com](mailto:ppmurthyggv@gmail.com)  
☎ +91-9424168937

### **Prof. P. P. Murthy**

**Ph.D. (1992) Pt. R.S.U., Raipur**  
**Professor**

**Research Interest:** Metric Fixed Point Theory and Applications, Cryptography

**Publications: 63** (National and International)



E-mail: [jpbhu2007@gmail.com](mailto:jpbhu2007@gmail.com)  
☎ +91-9009119349

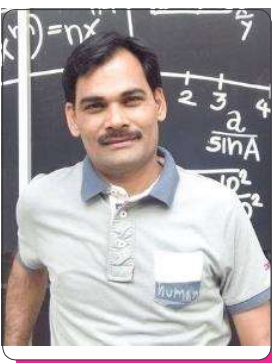
### **Dr. J. P. Jaiswal**

**Ph.D. (2010) BHU, Varanasi**  
**Associate Professor and Head**

**Research Interest:** Numerical Analysis

**Publications: 70** (National and International)

**Award/ Fellowship:** JRF-NET (Dec. 2008), GATE (2009), DST-SERB Young Scientist (2016)



E-mail: [gopal.dhananjay@rediffmail.com](mailto:gopal.dhananjay@rediffmail.com)  
☎ +91-9375941619

### **Dr. D. Gopal**

**Ph.D. (2006) GGU, Bilaspur**  
**Associate Professor**

**Research Interest:** Non linear Analysis/Fixed point theory

**Publications: 96** (National and International) (including 3 books & 7 book chapters)

**Award/ Fellowship: 4**



E-mail: [drsinghitggv@gmail.com](mailto:drsinghitggv@gmail.com)  
☎ +91-9826191850

### **Dr. Sandeep Singh**

**Ph.D. (1994) Dr. H. S. Gour Vishwavidyalaya, Sagar**  
**Assistant Professor**

**Research Interest:** Information Theory

**Publications:** 15 (National and International)



E-mail: [mkgiaps@gmail.com](mailto:mkgiaps@gmail.com)  
☎ +91-9479037747

### **Dr. M. K. Gupta**

**D.Phil. (2009), University of Allahabad, Allahabad**  
**Assistant Professor**

**Research Interests:** Differential Geometry of Finsler Space

**Publications:** 32 (National and International)

**Award/ Fellowship:** Gold Medal in M.Sc., University of Allahabad, UGC-JRF-NET (June 2003)



E-mail: [brajbhushan25@gmail.com](mailto:brajbhushan25@gmail.com)  
☎ +91-9479037787

### **Dr. B. B. Chaturvedi**

**D.Phil. (2009), University of Allahabad, Allahabad**  
**Assistant Professor**

**Research Interests:** Manifolds

**Publications:** 43 (National and International)

**Award/ Fellowship:** UGC-JRF-NET (June 2003)



E-mail: [knvp71@yahoo.co.in](mailto:knvp71@yahoo.co.in)  
☎ +91-9425529926

### **Dr. Koti N.V.V. Vara Prasad**

**Ph.D. (2008), Andhra University, Visakhapatnam**  
**Assistant Professor**

**Research Interests:** Non linear Analysis

**Publications:** 25 (National and International)



### **Mr. C. P. Dhuri**

**M.Sc. (2007), GGV, Bilaspur**

**Assistant Professor**

**Research Interests:** Fixed Point Theory

**Publications:** 1 (National and International)

E-mail: cpdhuri@gmail.com

☎ +91-9907876604



### **Dr. Uma Devi Patel**

**Ph.D (2016), GGV, Bilaspur**

**Assistant Professor**

**Research Interests:** Non linear functional analysis / fixed point theory

**Publications:** 9 (National and International)

E-mail: umadevipatel@yahoo.co.in

☎ +91-9827464810



### **Dr. Santosh Verma**

**Ph.D. (2012) M D S University, Ajmer (Rajasthan)**

**Assistant Professor**

**Research Interests:** Fractional Calculus

**Publications:** 3 (National and International)

E-mail: santoshverma30@yahoo.co.in

☎ +91-9977146477



### **Dr. Brijendra Paswan**

**Ph.D. (2017), IIT(ISM) Dhanbad**

**Assistant Professor**

**Research Interests:** Wave Propagation and Solid Mechanics

**Publications:** 7 (National and International)

E-mail: brijendrapaswan@gmail.com

☎ +91-7992420978



### **Mr. Hapka Surendra**

**M.Sc. (2018), GGV, Bilaspur, CSIR-NET  
Assistant Professor**

E-mail: hapkasurendra@gmail.com  
☎ +91-8770007891



### **Dr. Daya Shankar Singh**

**Ph.D (2003), Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.)  
Assistant Professor (Ad-hoc)**

**Research Interests:** Modern Algebra

**Publications:** 10 (National and International)

E-mail: dssingh2006@gmail.com  
☎ +91-9826481725



### **Dr. Chirajeev Kumar Yadav**

**Ph.D. (2019), GGV, Bilaspur**

**Assistant Professor (Ad-hoc)**

**Research Interests:** Differential Geometry,  
Mathematical Modeling

**Publications:** 8 (National and International)

E-mail: chiranjeev86@gmail.com  
☎ +91-9630963180



### **Dr. Sankirtan Sardar**

**Ph.D (2020), Jadavpur University, Kolkata**

**Assistant Professor (Ad-hoc)**

**Research Interests:** Nonlinear Dynamics/ Plasma  
Physics

**Publications:** 7 (National and International)

E-mail: sankirtansardar@gmail.com  
☎ +91-9681117752



### **Dr. Amar Pandey**

**Ph.D (2015), University of Allahabad, Allahabad**

**Assistant Professor (Ad-hoc)**

**Research Interests:** Discrete Mathematics,  
Cryptography and Coding Theory

**Publications:** 5 (National and International)

E-mail: amar4march@gmail.com  
☎ +91-8299258422





**Mr. Dinesh Rathia**

M.Sc. (2022), IISER, Kolkata, JRF-NET

**Assistant Professor(Ad-hoc)**

**Research Interest:** Control and Dynamical Systems

E-mail:drathia7@gmail.com  
+91-9826191850



## Support Staff



**Mr. Anand Ram Sahu**

**Jr. Office Assistant**

+91-77478-06589



**Mr. Pawan Shrivastava**

**Daily Wages Employee (MTS)**

+91-83496-80311



## **AWARDS AND SCHOLARSHIPS**

The topper of each batch is awarded a Gold Medal and Merit Certificate during the convocation of the University.

### **OTHER SCHOLARSHIPS / AWARDS**

1. Merit scholarship of Rs. 10,000/- per year may be extended to any one student from each school of studies, who secures highest score in the examination of respective course at the end of each year. Such scholarship will continue till the student maintains first position along with attendance record of 75% in classes and all clear status in semester examination and on the recommendation of the Dean. In case of otherwise the benefit will be shifted to the other highest score.
2. An amount of Rs. 5,000/- may be extended to students for the particular session, who have participated in any national level sports or games/ events as recommended by Dean.
3. An amount of Rs. 1 lakh may be awarded to students for the particular session, who have participated in any international sports/ games/ events as recommended by Dean.
4. Full free ship of tuition fee may be extended to any one student in each department belonging to poor family background, subject to condition that the student maintains attendance record of 75% in classes, all clear status, secures minimum 60% marks in semester examinations (who is not a recipient of scholarship or financial aid from any other source) as recommended by Dean.
5. Free meal facility may be extended to all blind students ( total blindness) residing in hostels of the University. Their actual mess bill will be reimbursed under the Students Welfare Scheme. The amount will be paid by drawing the bill in favour of Warden of the concerned hostel.

6. A sum of Rs. 5000/- per year per student in the form of cash may be provided to all blind students ( total blindness) of the University as financial assistance to purchase " Teaching Aid" every year, as recommended by the Dean of concerned school of studies.
  
7. Hand driven tricycle may be provided to physically handicapped students for movement in the campus and only once during their entire tenure of education in the University. Further, students should have attendance record of 75% in classes and on the recommendation of Dean of concerned school of studies.
  
8. An amount of Rs.11,000/- may be awarded to students who have set an example in the campus by their extra ordinary task as recommended by DSW/ Chief Proctor/ Chief Warden.

### **LIST OF GOLD MEDALIST**

1997	Ku. Shenu Varghese	72.8 %
1998	Ku. Neera Singh	83.67 %
1999	Ku. Seema Das	90.5 %
2000	Mr. Dhananjay Gopal	62.42 %
2001	Ku. Sweta Agarwal	81.67 %
2002	Mr. Gajendra Pratap	81.25 %
2003	Mr. Sudipata Maiti	80.83 %
2004	Ku. Sudha Datta	79.6 %
2005	Mr. Avijit Das	79.7 %
2006	Ku. Nisha B.	82.9 %
2007	Ku. Uma D. Patel	80.45 %

2008	Amit Kumar Berra	79.6 %
2009	Manoj KumarHutait	80.4 %
2010	Rakesh Manna	78.6 %
2011	Atanu Goswami	84.3 %
2012	Ujjwal Kumar Kar	90.6 %
2013		
2014	Nemai Bhoumic	
2015	Samir – Mondal	
2016	Akshay Singh	
2017	Manas Mondal	
2018	Akanksha Singh	
2019	Chitrarekha Sahu	
2020	Bhavishya Kumar Dewangan	93.85 %
2021	Babita Mehar	91.85 %

## OUR PRIDE

Dr. A. S. Ranadive	GGV, Bilaspur
Dr. N. Deo	Delhi College of Engineering, New Delhi
Dr. G.S. Singh	Govt. Engg. College, Bilapur
Dr. P.S. Kaurav	Govt. P.G. Sci. College, Gadarwara
Dr. D.R. Sahu	Govt. P.G. Sci. College, Bilaspur
Dr. M.A. Siddiqi	Govt. P.G. Sci. College, Durg
Dr. (Smt.) P. Verma	Govt. Degree College, Bilspur
Dr. A.B. Singh	GGV. Bilaspur
Dr. Awanish Sao	Govt. Model Sci. College, Bilaspur
Dr. A.K. Gauraha	Govt. Multipurpose School School, Bilaspur
Dr. P.A.S. Naidu	D. B. P.G. College, Gondia, Maharashtra
Dr. Arvind Sinha	NIT, Raipur
Dr. R.N. Patel	Govt. Model Sci. College, Bilaspur
Dr. P.K. Sharma	Inter College, Bilaspur
Dr. Vineet Agrawal	Govt. Sci. College, Hoshangabad, M.P.
Dr. Dhananjay Gopal	GGV, Bilaspur
Dr. Urmila Mishra	Engineering College, Sarguja University
Ms. Seema Das	USA
Shri V. Harangaonkar	USA
Dr. Rashmi Kevat	Anantrao pawar Engineering College, Pune

## Facilities on the campus

**Hostel:** Hostel facility for boys and girls are available in the campus.

**Computer Center:** The University has a sophisticated computer center equipped with latest versions of hardware and software. The center has appropriate statistical, scientific and simulation packages to cater to the educational needs. The center has installed one BSNL based leased line with 64 Kbps capacity. Students of the Department are eligible to avail the centralized computer facility. The Department has fully air-conditioned computer lab with Wi-Fi facilities well connected with LAN networking and necessary software for management students.

**Library:** The University has a well stocked up-to-date library containing about 86,000 books, 1650 back volumes of journals and five thousand projects / Ph.D. theses. Presently, it subscribes about 150 Indian and foreign journals in various disciplines. The reprographic facility on subsidized rate is provided to the users along with other library services. The library has internet facility and library automation with INFLIBNET link. Besides the central library, students can also use the departmental library.

**National Service Scheme:** The University has a unit of National Service Scheme (NSS) having a total strength of 100 students from the University Teaching Departments. The aim of NSS is to provide an opportunity and working experience for social services. The students participate in various activities like plantation, blood donation, seminar, essay writing, quiz, debate etc.

**Post Office and Bank:** The residents and students on the campus are provided with Banking & Communication facilities. Punjab National Bank and Post Office are rendering their services in the campus. ATM facility by Punjab National Bank is available in the campus. A new electronic telephone exchange is also established in the campus.

**Health Center:** Health care and ambulance facilities to the students and residents are available in the Health Center located near the University Computer Centre.

**SC/ST Cell:** University has a separate SC/ST cell. The cell processes and provides assistance to the SC/ST students to get scholarships as per the Government rules and deals with all the problems of the SC/ST students.

---

---

## Courses Offered

- UG/PG Program in Mathematics
- 2 Years (4 Semester) Course M.Sc. Mathematics
- Ph.D. in Mathematics

### Fee Structure

UG/PG Program	I Sem Rs. 5350	II Sem Rs. 2800	III Sem Rs. 3550	IV Sem Rs. 2800	V Sem Rs. 3550	VI Sem Rs. 3100
M.Sc.	At the time of admission Rs. 5800/-		II Semester Rs. 3250/-		III Sem Rs. 4000	IV Sem Rs. 3550
Ph.D.	At the time of admission Rs. 13950/-	Exam fees 440				

Examination and other university fees shall be charged separately as per notification as issued from time to time.

### Course Structure

#### **Ph.D. in Mathematics (with Course Work)**

Detail Syllabus Link:

[https://www.ggu.ac.in/Admin/Files/DeptCourse/08312022095856\\_PhD%20Coursework%20Scheme%20and%20Syllabus\\_w.e.f\\_2021-22.pdf](https://www.ggu.ac.in/Admin/Files/DeptCourse/08312022095856_PhD%20Coursework%20Scheme%20and%20Syllabus_w.e.f_2021-22.pdf)

#### **M.Sc. Mathematics**

#### **Examination Scheme**

- ◆ The course shall be of four semesters.
  - ◆ Each semester shall ordinarily be of 90 working days excluding examinations and preparation leave.
  - ◆ Each paper shall be of 100 marks.
- 
-

- ◆ Out of 100 marks, 60 marks shall be for semester examination which will be conducted by the university and 40 marks for internal assessment. The internal assessment marks will be given on the basis of internal assessment test / attendance / assignments. The three internal assessment tests for each theory paper shall ordinarily be conducted under the overall supervision of the Head of the Department. The procedure shall be that as notified by the Head from time to time.
- ◆ Anything not mentioned in the scheme shall be governed by the general examination ordinance/ regulations/rules/ notifications of the university as notified from time to time.
- ◆ Minimum 75% attendance is compulsory for being eligible to appear in the examination.
- ◆ Provision for ATKT exists in the course as detailed in the M.Sc. ordinance of the University (Ordinance no. 39).

Detail Syllabus Link:

[https://www.ggu.ac.in/Admin/Files/DeptCourse/04172022031404\\_M.Sc.\\_Mathematics-LOCF-ON\\_CBCS\\_13-01-2022\\_-Approved\(6-4-2022\).pdf](https://www.ggu.ac.in/Admin/Files/DeptCourse/04172022031404_M.Sc._Mathematics-LOCF-ON_CBCS_13-01-2022_-Approved(6-4-2022).pdf)

## **B. Sc. (Hons.) in Mathematics**

Detail Syllabus Link:

[https://www.ggu.ac.in/Admin/Files/DeptCourse/04162022092416\\_LOCF\\_syllabus\\_bsc\\_maths\(6-4-2022\).pdf](https://www.ggu.ac.in/Admin/Files/DeptCourse/04162022092416_LOCF_syllabus_bsc_maths(6-4-2022).pdf)

## **Code of Conduct**

The student admitted to Guru Ghasidas Vishwavidyalaya to achieve academic excellence and shape their character to become responsible citizen. They must realize their responsibility towards the University and its components like faculty, staff and fellow students. Failure to maintain good standard of conduct shall result in disciplinary action.

### **Misconduct**

Any of the following activities (but not limited to these only) will be termed as misconduct:

- ◆ Disruption of teaching activities or disturbing the learning process of other students in the campus.
  - ◆ Any act on the part of the students, which disrupts the functioning of the University, endangers health & safety of campus residents & damages the University properties.
  - ◆ Cheating in the examination & supplying false documents /information in order to seek any consideration/favour from the University.
- 
-



- ◆ Possession or consumption of intoxicating beverages on the campus.
- ◆ Failure to return back the loaned material, settle university dues.
- ◆ Possession of weapons.
- ◆ Use of unparliamentarily language while in conversation with University staff & fellow students.

### **Disciplinary Actions:**

#### **Failure to adhere to good conduct may result in disciplinary actions like:**

- ◆ A warning by the authorities.
  - ◆ Suspension from the particular class.
  - ◆ Suspension/Expulsion from the university.
  - ◆ Suspension of campus privileges e.g. hostel, accommodation, etc.
  - ◆ Withholding of examination results or withdrawal of awarded diploma/ degree certificate.
  - ◆ Any other disciplinary action deemed appropriate by the university authorities.
- 
-

## Ragging

It is observed that perverse form of ragging is prevalent in institutions of higher learning. The Government and the apex courts of the country have taken very serious view to combat the menace of ragging in universities and other educational institutions. Ragging has been recognized as the "Cognizable offence" and is punishable under law. The following could be the possible punishments for those who are found guilty of participation in or abetment of ragging. The quantum of punishment shall, naturally depend upon the nature and gravity of the offence as established by disciplinary committee or the court of law.

### **Punishments:**

- ◆ Cancellation of admission;
- ◆ Suspension from attending the classes;
- ◆ Withholding/withdrawing scholarships/fellowships & other benefits;
- ◆ Debarring from appearing in any tests / examination or other evaluation process; withholding results;
- ◆ Debarring from representing the institution in any national meet, tournament youth festival, etc.;
- ◆ Suspension / Expulsion from the hostel;
- ◆ Rustication from the institution for period varying from 1 to 4 semesters;
- ◆ Expulsion from the institution & consequent debarring from admission to any other institution;
- ◆ Fine up to Rs. 25000/- and
- ◆ Rigorous imprisonment up to three years.

While the first ten types of punishment can be awarded by the appropriate authority of the institution itself, the last punishment can be awarded by a court of law.

---

---

## Useful Contact Telephone Numbers

S.No.	POSITION	NAME	PHONE NO. (07752)
01.	Vice-Chancellor	Prof. Alok Kumar Chakrawal	260283
03.	Registrar (Acting)	Prof. Manish Shrivastava	260034
04.	Dean Student Welfare (DSW)	Prof. M. N. Trapathi	260204
05.	OSD	Prof. V. S. Rathore	260055
	OSD (Exam)	Prof. S. S. Dhuria	260000
06.	Controller of Exam (Acting)	Shri R.K. Sharma	
07.	Finance Officer (In Charge)	Prof. Sharad Shrivastava	260036
08.	Dean. School of Mathematical & Computational Sciences	Prof. A. S. Randive	
09.	Librarian	Dr. A.K. Sharma	260041
10.	HoD (Mathematics)	Dr. J. P. Jaiswal	260144
11.	Joint Registrar (Stores)	H.N. Choubey	260381
12.	Assistant Registrar (Administration)	Mr. Abhideep Tiwari	260036
13.	Assistant Registrar (Development)	Mr. S Lonare	260207
14.	Assistant Registrar (Administration & RTI Cell )	Mr. Abhideep Tiwari	260017
15.	Assistant Registrar (Examination)	Mr. Santosh Kumar Tripathi	260000
16.	Cultural Coordinator	Dr. Manish Srivastava	260007
17.	Computer Centre	Prof. A.K. Saxena	260356
18.	University Guest House	Dr. Santosh Prajapati	260024
19.	Health Centre		202317
20.	Police Station, Koni		260039
21.	P.N.B., Koni		260034
22.	Post Office, Koni		260032



**Department of Mathematics**  
**(DST-FIST Sponsored)**  
**Guru Ghasidas Vishwavidyalaya**  
(A Central University Established by the Central University Act, 2009)  
**Koni, Bilaspur (C.G.) – 495 009**