

# **COURSE HANDOUTS AND GUIDELINES**

**FOR**

## **BITSG629 DISSERTATION**

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**BITS Pilani**  
Pilani | Dubai | Goa | Hyderabad

**ACADEMIC RESEARCH DIVISION**

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI  
HYDERABAD CAMPUS**

**January 2014**

## CALENDAR OF EVENTS

I Sem.	II Sem.	Item	From	To
<b>Aug 31</b>	<b>Jan 28</b>	<b>TS-1 Form</b>	<b>Student</b>	<b>DRC/HOD</b>
<b>Sep 2</b>	<b>Jan 31</b>	<b>TS-1 form</b>	<b>DRC/HOD</b>	<b>ARD</b>
Sep 10	Feb 08	Detailed outline of work	Student	Supervisor
Sep 21	Feb 16	Viva –I/Seminar I	Student	Supervisor
Oct 06	Mar 12	Mid. Semester written report and presentation	Student	Supervisor
<b>Oct 06</b>	<b>Mar 12</b>	<b>Mid. Semester Grades</b>	<b>Supervisor</b>	<b>DRC/HOD</b>
<b>Oct 8</b>	<b>Mar 15</b>	<b>Mid. Semester Grades</b>	<b>DRC/HOD</b>	<b>ARD</b>
Nov 15	Apr 15	Viva – II/Seminar II	Student	Supervisor
Nov 28	Apr 30	Thesis abstract (2 copies)	Student	Supervisor
Nov 28	Apr 30	Final thesis report submission (2 copies)	Student	Supervisor
Dec 1 - 8	May 1-8	Final Viva/Seminar	Student	Examiner
<b>Dec 1 - 8</b>	<b>May 1-8</b>	<b>Final Dissertation Report, Final Evaluation Form (1 copy each)</b>	<b>Supervisor</b>	<b>DRC/HOD</b>
<b>Dec 10</b>	<b>May 10</b>	<b>Final Evaluation Form (1 copy each) Soft copy of the Final report (No hard copy required by ARD)</b>	<b>DRC/HOD</b>	<b>ARD</b>

N.B

1. If any of the above date happens to be a Sunday or a Holiday, the immediate next date will be the calendar date. FINAL DISSERTATION REPORT should be invariably be submitted on or before the above mentioned date.
2. Student should ensure with his/her supervisor that the Mid Semester grade and the Final Dissertation Report, Dissertation Abstract and Final Evaluation form are sent to the DRC/HOD by the due date.
3. The time and venue of Seminars to be fixed by the Supervisor
4. The Final viva- voce examination is to be held on the date announced by DRC/HOD. The Supervisor in consultation with examiner will fix the venue and time. Students should invariably submit final dissertation report on or before the above mentioned the dates.
5. Specified formats of the Cover/Title page and certificate form the supervisor should be adhered to in the preparation of final report. Attention should be given to the items in the check list for preparation of the report. Supervisors are requested to sign the certificate page in the report and signed copy of dissertation report should be made available to the examiners well in advance.

**BIRLS INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI HYDERABAD CAMPUS**  
**ACADEMIC RESEARCH DIVISION**

**FIRST/SECOND SEMESTER**  
**COURSE HANDOUT: BITS G629T DISSERTATION**

Instructor in-charge : Dean, ARD Division

Instructors : All Supervisors

**1. COURSE DESCRIPTION**

This course deals with the research and development work in assigned areas of professional interest. Each student will work under the overall guidance and supervision of a faculty member/professional. The course must end with a well defined final report outlining all the investigations, achievements and conclusions at the end of each semester. Reference and bibliography in standard format are also to be included in the report.

**2. SCOPE AND OBJECTIVE OF THE COURSE**

The aim of this course is to carry out a research and development project in assigned areas of professional interest. The course envisages student's training in the methodology of research and presentation of the research findings in the form of a scientific report.

**3. OPERATION OF THE COURSE**

- a) The student should immediately chalk out a plan of work in Consultation with his/her supervisor. Current literature (journals, books, etc.) Must be methodically reviewed and the status of the work in the field must be considered. The detailed outline of work must reflect a survey of the current literature in the same area and must include topic of research, objective, background of previous work in the area, methodology and a work plan with a time schedule clearly indicating the intermediate milestones and the estimated time to achieve the same along with references and bibliography.
- b) Within two weeks of registration, the student should give his Dissertation particulars to the DRC/HOD in TS-1 Proforma.
- c) The student should regularly interact with his/her supervisor and present seminars and submit reports on the scheduled dates. Proposed examiners and other faculty in relevant area may be requested to attend the presentations.
- d) Supervisor will announce the Mid-semester grade to his/her student and send the MID-SEM Evaluation Form to the DRC/HOD.
- e) TWO typed copies of Final Dissertation Report and Abstract are to be submitted to the supervisor on or before the last day of class work in each semester. Supervisor will retain his copy and send the remaining ONE copy after the viva-voce examination along with the Final Evaluation Form and Dissertation Abstract to the DRC/HOD.
- f) Every student has to sign his/her attendance regularly with the supervisor or as per the alternative arrangement made by the supervisor. An attendance sheet is being provided for this purpose to the supervisor.
- g) The candidate should apply and seek prior permission of his/her supervisor for going on leave for any genuine needs. If the leave of absence exceeds **seven** days in the entire semester, the recommended final grade may be revised by the Instructor in-charge in consultation with the supervisor.
- h) The following format for Dissertation Abstract should be used:

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### Format for submission of Dissertation Abstract

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Dissertation Title:  
Supervisor:  
Semester:                      First/Second                      Session  
Name of Student:    ID No.  
Abstract

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Abstract in the above format should also be included in the bound report.

- i) A separate Dissertation topic has to be assigned to individual students. Wherever the broad area is same, the aspects to be researched by an individual candidate should be clearly focused and spelt out.
- j) Utmost care should be taken in the preparation of the FINAL REPORT. A check-list of various items is provided and students should carefully go through these. Supervisors are also requested to examine the draft of the FINAL REPORT keeping in view the items in the check-list.

#### 4. EVALUATION

Evaluation in this course is essentially individual oriented. The various instruments of evaluation along with the weightage of components are given below:

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Component	Weightage	Week in which due
Viva –I	15	5th week
Mid. sem. written report	15	10th week
Mid. sem. presentation	15	10th week
Viva –II	15	15th week
Final Dissertation*	25	Last day of class work
Final Viva-voce*	15	Actual date announced by DRC/HOD

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\*Final Viva-voce examination and evaluation of the Dissertation is to be jointly done by the Supervisor and the examiner appointed by the DRC/HOD. The other components are to be evaluated by the supervisor and the details are to be made available to the examiner at the time of final viva.

Supervisor will send the copy of Dissertation report to the examiner well in advance. Before sending he should check the contents as per checklist and sign the 'Certificate' page.

The evaluation will recognize the day-to-day work involvement and punctuality of the student in his/her work. Evaluation in various components shall take into account work progress and achievements, technical/professional competence, documentation and expression, initiative and originality, punctuality and reliability, self-reliance, and acquisition of special skills. The student should extend full cooperation to his/her supervisor and interact with him in advance about the time, venue and mode of each evaluation. He/She should be in constant touch with his/her supervisor. Supervisor may require his/her student to sign the attendance sheet before a particular time on each working day.

Grading will be done mainly on the basis of the progress made towards attaining the overall objectives of the Dissertation. The supervisor shall evaluate various prescribed components of evaluation before the submission of final Dissertation. The supervisor shall evaluate the various prescribed components of evaluation before the submission of final report. He/she should seek utmost participation of examiner by inviting him to the various seminars. A full time student is normally registered for 8/9 units when registered along with other courses in a semester. Supervisor can reduce/increase the prescribed units subject to a minimum of 4 and maximum of 10 units depending on the time and effort devoted by the individual student. Supervisor should maintain all pertinent records of his student. Departures in the number of units to be registered may be decided by the Higher Degree Counseling Committee.

The final report and performance in the final viva are to be jointly evaluated by the Supervisor and examiner appointed by the DRC/HOD. Evaluation in various components can be done on the basis of marks or grades. However, the recommendations for the final award shall invariably be made in terms of one of the prescribed letter grades, viz. **A/A<sup>-</sup>/B/B<sup>-</sup>/C/C<sup>-</sup>/D/E**. The student will have to defend the work appearing in his/her Dissertation before the panel of examiners.

Immediately after the final viva, ONE copy each of the Dissertation Report and Dissertation Abstract along with the completed Final Evaluation Form are to be submitted to the DRC/HOD by the supervisor. The student should also ensure with his/her supervisor so that these reach the Division well before the last date of comprehensive examination. Supervisor should check that he has signed the 'Certificate Page'.

#### **5. MID SEMESTER GRADING**

This will be announced by the supervisor to his/her student sometime in the 10<sup>th</sup> week of the semester. Mid-semester evaluation form should be returned by the supervisor to the DRC/HOD during the 10<sup>th</sup> week of the Semester.

#### **6. COURSE NOTICES**

Notices pertaining to this course will be displayed on respective Group Notice Boards by the supervisor. Students may also see Department Notice Board for notices issued by the Department.

#### **7. GENERAL**

- a) It is the responsibility of the student to ensure continuous interaction with his /her Supervisor.
- b) Prescribed formats of the Cover/Title page and certificate from the supervisor should be adhered to in the preparation of final Dissertation Report. Check-list of items for the preparation of the FINAL REPORT should also be consulted. The following sequence may be followed in the preparation of the Dissertation Report:
  - Title page (inner cover)
  - Acknowledgement
  - Certificate from the Supervisor
  - List of Symbols & Abbreviations used
  - Dissertation Abstract
  - Table of contents
  - Chapters 1, 2, 3, etc.
  - Conclusion
  - Appendices
  - Bibliography/References
  - List of Publications/Conference Presentations, if any.

- c) The registration in Dissertation course is normally done after the completion of coursework. 16-20 Units of Dissertation will be assigned at the time of registration. Units put upto a maximum of 25 may be permitted depending upon the total time and effort put in by an individual student. Registration in more than 20 units of Dissertation will normally be available only to students who have taken Higher Degree courses as electives in their first-degree programs. Concurrent registration for nominal 8-9 units per semester in Dissertation with course work is also Permissible for motivated, well prepared and hard working students.

**Check List of Items for Final Report of Higher Degree Dissertation**

1. Is the Report’s ‘Cover/Title page’ in proper format?
2. Is ‘Supervisor’s Certificate’ in proper format? Has it been signed?
3. Is ‘Abstract’ included in the Report? Is it in properly written?
4. Does the ‘Table of Contents’ page include chapter page numbers?
5. Does the Report contain a summary of the literature survey?
6. (a) Are the Pages numbered properly?  
(b) Are the Figures numbered properly?  
(c) Are the Tables numbered properly?  
(d) Are the Figures and tables titled properly?  
(e) Are the Appendices numbered?
7. Does the Report have ‘Conclusion’ of the work?
8. Are References/Bibliography given in the Report?
9. Have the ‘References’ been cited in the Report?
10. Is the citation of ‘References and Bibliography’ in the standard format?

Attention should be paid on the above items while preparing the FINAL REPORT. Supervisors are also requested to ensure that their candidate(s) have prepared the FINAL REPORT properly.

Illustrative Examples of Citation of References:

1	Book: A.Gelb, Applied Optimal Estimation. Cambrige, M.A.; M.I.T. Press, :1974
2	A paper in Conference or Symposium Proceedings edited Published by Book Company: R.E.Kalman, ‘New Methods in Wiener filtering theory’, in Proc. First Symposium on Engineering Applications of Random function Theory and Probability’ J.L. Bogdanoff and F. Kozin, Eds.New York, Wiley, 1963, pp.270-388
3	A Journal Paper: R.E. Kalman and N.S.Pucy, “New results in linear filtering and prediction theory’, Tans. ASME, J.Basic., Col. 83-D, pp 95-108, Mar.1961
4	A Conference Paper: M.Vidyasagar and N.K. Bose, ‘Input-ouput stability of linear systems defined over measure spaces’, in Proc. Midwest Symp. Ciro, Syst., Montreal, P.O. Canada, Aug.1975, Pp 394-397
5	A Ph.D thesis or Dissertation A.C.G Viera, ‘Matri, orthogonal polynomials, with application to autoregressive modeling and ladder forms’, Ph.D Thesis, Standford Univ., Stanford, CA, Dec.77
6	A Private Communication W.M. Wonham (1982) Private Communication

**Format of the Cover/Title page of the Dissertation**

**(Title of the Dissertation)**

Thesis  
Submitted in partial fulfillment of the requirements of  
**BITS G629 Dissertation**

By

**(Author)**

**ID No. (                    )**

Under the supervision of

-----  
**(Name and Designation of Supervisor)**

**&**

-----  
**(Name and Designation of Co-supervisor)**



BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI HYDERABAD CAMPUS

(Date)

**Format of 'Certificate from the Supervisor'**

**CERTIFICATE**

This is to certify that the Dissertation entitled, \_\_\_\_\_

\_\_\_\_\_ and submitted by

\_\_\_\_\_ ID No. \_\_\_\_\_ in partial fulfillment of the requirement of BITS  
G629T Dissertation embodies the work done by him/her under my supervision.

Signature of the Supervisor

**Name**

Designation

Date:

Signature of the Co-supervisor

**Name**

Designation

Date:

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI  
HYDERABAD CAMPUS  
ACADEMIC RESEARCH DIVISION**

**FIRST/SECOND SEMESTER 20 -20**

**MID SEMESTER EVALUATION FORM- BITS G629T DISSERTATION**

**Section I PARTICULARS (TO BE FILLED BY STUDENT AND RETURNED TO SUPERVISOR)**

ID No. \_\_\_\_\_ Name of Student \_\_\_\_\_

Title of Dissertation \_\_\_\_\_

\_\_\_\_\_

No. of units registered \_\_\_\_\_

**Section II EVALUATION DETAILS (TO BE FILLED BY SUPERVISOR)**

S.No.	Evaluation Component	Max. Marks	Marks awarded
1.	Viva –I	05	
2.	Mid. Sem. Presentation	10	
3.	Mid. Sem. Written Report	10	
	Total	25	

Recommended Mid-semester grade **(A/A-/B/B-/C/C-/D/E)**:

Report , if any (NC/I, See Academic Regulation 4.12):

(Give Reasons)

Date: \_\_\_\_\_

Signature of Supervisor  
Name

Signature of Co-Supervisor  
Name

NB: Supervisor should announce the mid semester grades to his student directly and return the form to the DRC/HOD.



**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE- PILANI HYDERABAD CAMPUS**  
**ACADEMIC RESEARCH DIVISION**  
**FIRST/SECOND SEMESTER 20 -20**

**END SEMESTER EVALUATION FORM: BITS G629T DISSERTATION**

ID No. \_\_\_\_\_ Name of Student \_\_\_\_\_  
 \_\_\_\_\_

Title of Dissertation-----  
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**I. Evaluation**

S.No.	Evaluation Component	Max. Marks	Marks awarded
1.	Viva –I	05	
2.	Mid. Sem. Presentation	10	
3.	Mid. Sem. Written Report	10	
4.	Viva – II	35	
5.	Final Thesis Report	15	
6.	Final Viva	25	
	Total	100	

Recommended Mid-semester grade (A/A-/B/B-/C/C-/D/E):

**RECOMMENDED FINAL GRADE (A/A-/B/B-/C/C-/D/E):**

No. of Units

(i) Registered \_\_\_\_\_ (ii) Recommended by Supervisor\* \_\_\_\_\_

Reports, if any (NC/I, See Academic Regulations

4.12) (Give Reasons)

Supervisor's rating

Work Progress and Achievement	A / A- / B / B- / C / C- / D / E
Technical competence	A / A- / B / B- / C / C- / D / E
Documentation and expression	A / A- / B / B- / C / C- / D / E
Initiative and originality	A / A- / B / B- / C / C- / D / E
Punctuality	A / A- / B / B- / C / C- / D / E
Reliability	A / A- / B / B- / C / C- / D / E

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Examiner

\_\_\_\_\_  
Signature of Supervisor

\_\_\_\_\_  
Signature of Co-Supervisor

\_\_\_\_\_  
Semester

\_\_\_\_\_  
Name of Examiner

\_\_\_\_\_  
Name of Supervisor

\_\_\_\_\_  
Name of Co-Supervisor

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI HYDERABAD CAMPUS**  
**ACADEMIC RESEARCH DIVISION**  
**PARTICULARS OF DISSERTATION- BITS G629T DISSERTATION**

The student should correctly fill in this Performa immediately after all the changes (in topic, supervisor or both) are finalized and submit to DRC/HOD within two weeks of registration..

**A. Personal Particulars**

ID No. \_\_\_\_\_ Name: \_\_\_\_\_  
 Local Address: \_\_\_\_\_  
 \_\_\_\_\_  
 Email Address \_\_\_\_\_  
 Permanent Home Address & Tel. No. of any \_\_\_\_\_

**B. Dissertation Particulars**

Name of Supervisor: \_\_\_\_\_  
 Name of Co-Supervisor: \_\_\_\_\_  
 Dissertation topic: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

No. of units already completed: \_\_\_\_\_

No. of units registered in the current semester: \_\_\_\_\_

\_\_\_\_\_  
 Date:

\_\_\_\_\_  
 Signature of Student

**Panel of Examiners (To be filled by the Supervisor)**

S. No.	Name of Faculty	Group/Div./Unit
1		
2		

\_\_\_\_\_  
 Date:

\_\_\_\_\_  
 Signature of Supervisor

\_\_\_\_\_  
 Signature of Co-Supervisor

**Higher Degree Dissertation Project Outline**  
**(Attach extra sheet if necessary)**

**Aim or objective of the project work:**

**Background of work:**

**Plan of work:**

**Bibliography and References:**

\_\_\_\_\_  
**Signature of student**

\_\_\_\_\_  
**Signature of Supervisor**

\_\_\_\_\_  
**Signature of Co-Supervisor**

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI HYDERABAD CAMPUS  
ACADEMIC RESEARCH DIVISION**

**ATTENDANCE SHEET FOR FIRST DEGREE THESIS/HIGHER DEGREE DISSERTATION STUDENTS  
FIRST/SECOND SEMESTER 201 - 201**

**I. PARTICULARS**

Name of student \_\_\_\_\_ ID No. \_\_\_\_\_ Supervisor \_\_\_\_\_

Hostel \_\_\_\_\_ Room No. \_\_\_\_\_

**II. Attendance (Student to sign his initials)**

Month	DATES																Total working days	Days absent
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Aug/Jan																		
	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
Sep/Feb																		
Oct/Mar																		
Nov/Apr																		
Dec/May																		

Note: Supervisor may decide to keep this sheet with him or with the Group/Division office (in consultation with the incharge and ask the student to sign on each working day before a particular specified time. This sheet should be returned to DRC/HOD along with the Final Evaluation Form.

Date:

Signature of Supervisor