



INDIRA GANDHI NATIONAL OPEN UNIVERSITY

Dated: February, 2016

Sub : Course Registration – Choice of Courses – B. Sc. II/ III Year July 2016 Session.

Dear Student,

As per the provisions laid down in your Programme Guide, you are required to submit your option for **Elective Courses** for the next academic year, irrespective of the fact whether you have appeared in the examination or not, or whether you have passed or not in the courses for which you have registered in the current academic session. **The Course Registration Form along with the guidelines about the courses is enclosed.**

Fee

You are requested to fill up the form and send it to the **Regional Centre** along with the Programme fee of **Rs.3500/-** (Rupees **Three thousand and five hundred only**) in the form of a Demand Draft drawn from any Scheduled Bank, in favour of IGNOU, payable at the city of the Regional Centre as per the following schedule.

| S.No. | July Session | January Session | Late Fee |
|-------|---|---|------------------|
| 1. | 1st February to 31st March | 1st August to 1 st October | NIL |
| 2. | 1st April to 30th April | 3 rd October to 31 st October | Rs.200/- |
| 3. | 1st May to 31st May | 1 st November to 30 th November | Rs.500/- |
| 4. | 1st June to 20th June | 1 st December to 20 th December | Rs.1000/- |

Course Re-Registration forms received after the due date or without the programme fee of **Rs.3500/- and late fee**, if any, will be summarily rejected.

Options available in the Elective Courses are given in Table IV of the Guidelines (for course registration for B.Sc. II/III year) being sent with these forms. You are required to fill in the Course Registration Form as per the instructions printed on it. **If you want to register for B.Sc. (Major) in a particular discipline, you should opt for the required number of credits from elective courses in that particular discipline as given in Table III of the Guidelines.** This will enable you to pursue your studies in that subject at the Master's level.

With best wishes,

Yours sincerely,

(Regional Director)

Note:

- (i) Students who sought admission to B.Sc. 1st year in January 2016 cycle are not eligible for 2nd year Re-registration in July 2016 Session. They are eligible for 2nd year Re-registration in January 2017 session only, at the earliest. Similarly, students of January 2015 batch are not eligible for 3rd year Re-registration in July 2016 Session. They are eligible for 3rd year re-registration in January 2017 session only, at the earliest.
- (ii) Old students of pre-July 2011 batches are not eligible for Re-registration in July 2016 Session.
- (iii) You are required to fill-up compulsorily the statistical information in the enclosed Annexure-I of the RR Form.



INDIRA GANDHI NATIONAL OPEN UNIVERSITY
COURSE REGISTRATION FORM FOR B.Sc.
II YEAR – July 2016 Session

Send this filled-in form along with fee to:
The Regional Director of your Regional Centre
 * as per schedule

Enrolment No.

Regional Centre Code

Study Centre Code

1. Name of the Student (in capital letters): _____
2. Complete Address : _____

Details of fee paid: Draft is to be made from any Scheduled Bank in the name of IGNOU payable at the city of the Regional Centre.

- a. Name of the Bank _____ Place _____
- b. Bank Draft No. _____ Dated _____
- c. Amount (Rs. 3500/- + the late fee as applicable) _____ Name of the City: _____

You are advised not to repeat any elective course taken during the First Year. BSHF-101 (Foundation Course in Humanities & Social Sciences), an 8 credit course, is compulsory. You should fill in the boxes provided by indicating your choice of the electives worth 24 credits. You should choose the maximum number of credits in the discipline in which you would like to major.

I hereby register for the following courses for II year Bachelor of Science commencing **July 2016**.

| Sl. No. | Discipline (Course Codes) | Course Code | Credits | |
|---------|--|---|---|--------------|
| 1. | Foundation Course in Humanities and Social Sciences | <input style="width: 100%; height: 20px;" type="text" value="BSHF101"/> | <input style="width: 40px; height: 20px;" type="text" value="8"/> | } 24 Credits |
| 2. | Chemistry <small>(from CHE 1 to 9, CHE 11L & MTE 3)</small> | <input style="width: 100%; height: 20px;" type="text"/> | <input style="width: 40px; height: 20px;" type="text"/> | |
| 3. | Life Sciences <small>(from LSE 1 to LSE 8L & MTE 3)</small> | <input style="width: 100%; height: 20px;" type="text"/> | <input style="width: 40px; height: 20px;" type="text"/> | |
| 4. | Physics <small>(from BPHE 101, BPHE 102, BPHL 103, PHE4 to PHE 10 & PHE 15)</small> | <input style="width: 100%; height: 20px;" type="text"/> | <input style="width: 40px; height: 20px;" type="text"/> | |
| 5. | Mathematics <small>(from MTE 1, 2, 4 to MTE 10)</small> | <input style="width: 100%; height: 20px;" type="text"/> | <input style="width: 40px; height: 20px;" type="text"/> | |

Total : 32 credits

- Note :**
- 1) For both B.Sc.(Major) and B.Sc.(General) degrees, at least 25% of the total credits in elective courses from Physics, Chemistry and Life Sciences *must be from laboratory courses*.
 - 2) Do not repeat the course(s) that you have already opted for in 1st year.
 - 3) For all the *Elective Courses of 2nd year*, a student is eligible for appearing in her/his first attempt in Term-end examinations only after one year of the commencement of the session.
 - 4) **PLEASE KEEP A PHOTO COPY OF THIS FORM FOR YOUR RECORD.**

Date: _____

Yours faithfully,
 Signature of student _____
 E-Mail ID _____
 Mobile/ Ph. No. _____

* Schedule for submission of Re-registration form at the Regional Centre only:

| S.No. | July Session | January Session | Late Fee |
|-------|---|---|------------------|
| 1. | 1st February to 31st March | 1 st August to 1 st October | NIL |
| 2. | 1st April to 30th April | 3 rd October to 31 st October | Rs.200/- |
| 3. | 1st May to 31st May | 1 st November to 30 th November | Rs.500/- |
| 4. | 1st June to 20th June | 1 st December to 20 th December | Rs.1000/- |

- Note:**
- (i) **Students who sought admission to B.Sc. 1st year** in January 2016 cycle are not eligible for 2nd year re-registration in July 2016 Session. They are eligible for 2nd year registration in January 2017 session only, at the earliest.
 - (ii) **Old students of pre-July 2011 batches are not eligible for Re-registration in July 2016 Session.**
 - (iii) **You are required to fill-up compulsorily the statistical information in the enclosed Annexure-I of the RR Form.**



INDIRA GANDHI NATIONAL OPEN UNIVERSITY
COURSE REGISTRATION FORM FOR B.Sc.
III YEAR – July 2016 Session

Send this filled-in form along with fee to:
The Regional Director of your Regional Centre
 * as per schedule

Enrolment No.

Regional Centre Code

Study Centre Code

1. Name of the Student (In capital letters) : _____

2. Complete Address : _____

Details of fee paid:

Draft is to be made from any Scheduled Bank in the name of IGNOU payable at the city of the Regional Centre.

a. Name of the Bank _____ Place _____

b. Bank Draft No. _____ Dated _____

c. Amount (Rs.3500/- + the late fee as applicable) _____ Name of the City: _____

You are advised to fill in the boxes provided by indicating your choice of Electives and Application-oriented Courses not exceeding 32 credits. If you would like to Major in any Discipline, you must choose the maximum number of credits in that Discipline but the total number of elective credits in that Discipline should not be more than 48 credits. You have to take 8 credits or 16 credits worth of Application-oriented Course(s) from Group-A1, listed in Table II. Do not repeat any elective course taken during the first and second years.

I hereby register for the following courses for III year B.Sc. commencing **July 2016**.

| S. No. | Discipline (Course Codes) | Course Code | Credits |
|--------|---|----------------------|----------------------|
| 1. | Chemistry (from CHE 1 to CHE 12L, MTE 3) | <input type="text"/> | <input type="text"/> |
| 2. | Life Sciences (from LSE 1 to LSE 8L, MTE 3) or [LSE 1 to LSE 11L for B.Sc. (Zoology) Major] or [LSE 1 to LSE 8L and LSE 12 to LSE14L for B.Sc. (Botany) Major] | <input type="text"/> | <input type="text"/> |
| 3. | Physics (from BPHE 101, BPHE 102, BPHL 103, PHE 4 to PHE 16) | <input type="text"/> | <input type="text"/> |
| 4. | Mathematics (from MTE 1, 2, 4 to MTE 14) | <input type="text"/> | <input type="text"/> |
| 5. | Group – A1 (Application-oriented Course(s)) | <input type="text"/> | <input type="text"/> |

} 16 or 24 Credits
 } 8 to 16 Credits

Total : 32 credits

- Note :**
- 1) For both B.Sc.(Major) and B.Sc.(General) degrees, at least 25% of the total elective credits in Physics, Chemistry and Life Sciences must be from laboratory courses.
 - 2) For all the *Elective and Application-oriented Courses* of 3rd year, a student is eligible for appearing in his/her first attempt in Term-end examinations only after one year of the commencement of the session.
 - 3) Do not repeat the course(s) that you have already opted in the I/II year.
 - 4) **PLEASE KEEP A PHOTO COPY OF THIS FORM FOR YOUR RECORD.**

Yours faithfully,

Date: _____

Signature of student _____

E-Mail ID _____

Mobile/ Ph. No. _____

* Schedule for submission of Re-registration form at the Regional Centre only:

| S.No. | July Session | January Session | Late Fee |
|-------|--|---|-----------|
| 1. | 1 st February to 31 st March | 1 st August to 1 st October | NIL |
| 2. | 1 st April to 30 th April | 3 rd October to 31 st October | Rs.200/- |
| 3. | 1 st May to 31 st May | 1 st November to 30 th November | Rs.500/- |
| 4. | 1 st June to 20 th June | 1 st December to 20 th December | Rs.1000/- |

Note:

- (i) Students who have registered for their second year courses in January 2016 cycle are not eligible for 3rd year registration in July 2016 Session. They are eligible for 3rd year re-registration only in January 2017 session, at the earliest.
- (ii) Old students of pre-July 2011 batches are not eligible for Re-registration in July 2016 Session.
- (iii) You are required to fill-up compulsorily the statistical information in the enclosed Annexure-I of the RR Form.

Guidelines for Course Registration of II/III Year, B.Sc

Table – I

The elective courses available for B.Sc. students are given below:

| <i>Discipline</i> | <i>Title of the Elective Course</i> | <i>Code</i> | <i>Credits</i> |
|---|--|-----------------|----------------|
| Chemistry | Atoms and Molecules } To be taken together | CHE 1 | 2 |
| | Chemistry Lab-I } To be taken together | CHE 3(L) | 2 |
| | Inorganic Chemistry | CHE 2 | 4 |
| | Physical Chemistry | CHE 4 | 4 |
| | Organic Chemistry | CHE 5 | 4 |
| | Organic Reaction Mechanism | CHE 6 | 4 |
| | Chemistry Lab-II } To be taken together | CHE 7(L) | 2 |
| | Chemistry Lab-III } To be taken together | CHE 8(L) | 2 |
| | Biochemistry | CHE 9 | 4 |
| | Spectroscopy | CHE 10 | 4 |
| | Chemistry Lab-IV | CHE 11(L) | 4 |
| | Chemistry Lab-V | CHE 12(L) | 4 |
| | Mathematical Methods | MTE 3 | 4 |
| | Life Sciences | Cell Biology | LSE 1 |
| Ecology | | LSE 2 | 4 |
| Genetics | | LSE 3 | 4 |
| Laboratory Course-I | | LSE 4(L) | 4 |
| Physiology | | LSE 5 | 4 |
| Developmental Biology | | LSE 6 | 4 |
| Taxonomy and Evolution | | LSE 7 | 4 |
| Laboratory Course-II | | LSE 8(L) | 4 |
| Animal Diversity-I } To be taken together | | LSE 9 | 6 |
| Animal Diversity-II } To be taken together | | LSE 10 | 6 |
| Animal Diversity Laboratory } To be taken together | | LSE 11(L) | 4 |
| Plant Diversity-I } To be taken together | | LSE 12 | 6 |
| Plant Diversity-II } To be taken together | | LSE 13 | 6 |
| Plant Diversity Laboratory } To be taken together | | LSE 14(L) | 4 |
| Mathematical Methods* | MTE 3* | 4 | |
| *MTE-03 (Mathematical Methods) can be taken as a Life Science elective for B.Sc. (General) degree. However, it will not be considered as a Life Science elective credit if you wish to do B.Sc. (Major) in Zoology or Botany. | | | |
| Physics | Elementary Mechanics (Formerly PHE 1) } To be taken together | BPHE101 | 2 |
| | Oscillations and Waves (Formerly PHE 2) } To be taken together | BPHE 102 | 2 |
| | Physics Laboratory-I (Formerly PHE 3L) | BPHL 103 | 4 |
| | Mathematical Methods in Physics-I } To be taken together | PHE 4 | 2 |
| | Mathematical Methods in Physics-II } To be taken together | PHE 5 | 2 |
| | Thermodynamics and Statistical Mechanics | PHE 6 | 4 |
| | Electric and Magnetic Phenomena | PHE 7 | 4 |
| | Physics Laboratory-II | PHE 8(L) | 4 |
| | Optics | PHE 9 | 4 |
| | Electrical Circuits and Electronics | PHE 10 | 4 |
| | Modern Physics | PHE 11 | 4 |
| | Physics Laboratory-III | PHE 12(L) | 4 |
| | Physics of Solids | PHE 13 | 4 |
| | Mathematical Methods in Physics-III | PHE 14 | 4 |
| | Astronomy and Astrophysics | PHE 15 | 4 |
| | Communication Physics | PHE 16 | 4 |
| Mathematics | Calculus | MTE 01 | 4 |
| | Linear Algebra | MTE 02 | 4 |
| | Elementary Algebra } To be taken together | MTE 04 | 2 |
| | Analytical Geometry } To be taken together | MTE 05 | 2 |
| | Abstract Algebra | MTE 06 | 4 |
| | Advanced Calculus | MTE 07 | 4 |
| | Differential Equations | MTE 08 | 4 |
| | Real Analysis | MTE 09 | 4 |
| | Numerical Analysis | MTE 10 | 4 |
| | Probability and Statistics | MTE 11 | 4 |
| | Linear Programming | MTE 12 | 4 |
| | Discrete Mathematics | MTE 13 | 4 |
| | Mathematical Modelling | MTE 14 | 4 |

Table II : Group – A1 (Application-oriented Courses) : For IIIrd Year

| S.No. | Course Code | Title of the course | Credits |
|-------|-------------------------------|--|----------------|
| 1. | AFWE | Application-oriented Courses in : Feature Writing (English) | 4 |
| | | or | |
| 2. | BHDA 101 BEGA 102 | Samachar Patra aur Feature Lekhan (Hindi) (Formerly AFW(H) Writing for Radio (English) (Formerly AWR (E)) | 4 4 |
| | | or | |
| 3. | BRPA 101 ATR 1 | Radio Lekhan (Hindi) (Formerly AWR (H)) | 4 8 |
| 4. | ACC 1 | Translation (Hindi 4 credits + English 4 credits) | 8 |
| 5. | ANC 1 | Organising Childcare Services | 8 |
| 6. | AHE 1 | Nutrition for the Community | 8 |
| 7. | AMK 1* | Human Environment (6 Cr. Theory + 2 Cr. Project) | 4 |
| 8. | AED 1* | Marketing | 4 |
| 9. | AOM 1* | Export Procedures and Documentation | 4 |
| 10. | ASP 1* | Office Organisation & Management | 4 |
| 11. | AMT 1 | Secretarial Practice Teaching of Primary School Mathematics (6 Cr. Theory + 2 Cr. Project) | 8 8 |
| 12. | ACS 1 | | 8 |
| 13. | CTE 3 | Consumer Studies | 4 |
| 14. | CTE 4 OR CTE 5 | Teaching Strategies Teaching English – Elementary School } To be taken together | 4 |
| | | OR | |
| 15. | AST 1** | Teaching English – Secondary School (with CTE 3 take any one, either CTE 4 or CTE 5) | 4 |
| 16. | AOR 1** | Statistical Techniques | 4 |
| 17. | AEC 1h | Operations Research | 8 |
| 18. | APM 1 | Environmental Chemistry (6 Cr. Theory+2Cr. Lab work) | 8 |
| 19. | BCOA 001 | Integrated Pest Management (6 Cr. Theory+2Cr.Project) Business Communication and Entrepreneurship (English medium only) | 4 |

Old students of pre- July 2011 batches are not eligible for Re-registration in July 2016 Session.

* Commerce based Application-oriented Courses. However, students are free to choose any Application-oriented Course(s) of their choice. Among 4 credit AOC(s), they have to choose at least two 4 credit courses to make up to 8 credits in total.

** 10+2 level of mathematics is a pre-requisite.

Ω **Only for B.Sc. students.**

IMPORTANT NOTE

While opting for a course, please keep the following pre-requisites and co-requisites in mind. A **co-requisite** refers to a course **to be taken together** with the course concerned, while a **pre-requisite course** should be opted for **before** studying the course concerned. Note that we recommend co-requisite and pre-requisite courses, so that you can follow the related courses easily. However, this is **not a compulsory directive**.

MTE 1 is pre-requisite for MTE 7 to MTE 10.

MTE 7 is a pre-requisite for MTE 11.

MTE 7 is a co-requisite for MTE 8.

MTE 8 is a pre-requisite for MTE 14.

CHE 1 is a pre-requisite for CHE 4, CHE 5 and CHE10.

CHE 1 is a co-requisite for CHE 2.

CHE 2 is a pre-requisite for CHE 10.

CHE 4 is a pre-requisite for CHE 9.

CHE 5 is a co-requisite for CHE 6 and pre-requisite for CHE 9 and CHE 10.

BPHE 102 is a pre-requisite for PHE 9.

PHE 7 is a pre-requisite for PHE 10.

BPHE 101, PHE 4 and PHE 5 are pre-requisites for PHE 11.

PHE 10 is a co-requisite for PHE 16.

PHE 4 and PHE 5 are pre-requisites for PHE 14.

CHE 1, CHE 2 and CHE 3(L) are the pre-requisites for AEC-1 course.

Since the Chemistry courses of IGNOU include quantitative techniques, we suggest that you take MTE 3, if you haven't studied Mathematics up to the +2 level. It will help you to cope better with these courses. However, **if you plan to take any other Mathematics electives (MTE 1, 2, 4 to 14), you are not permitted to take MTE 3.**

While doing so, remember that the combination of courses should be such that in any discipline you choose to study, you take at least 4 credits at a time. Therefore, opt two 2-credit courses from the same discipline.

The 2 credit courses **must be taken from the same discipline** in the following combinations:

| | | |
|----------|-----|----------|
| CHE 1 | and | CHE 3(L) |
| CHE 7(L) | and | CHE 8(L) |
| BPHE 101 | and | BPHE 102 |
| PHE 4 | and | PHE 5 |
| MTE 4 | and | MTE 5 |

You cannot take combinations of 2 credit courses from different disciplines. For example, you cannot take the following courses together:

| | | |
|----------|-----|--------|
| BPHE 101 | and | CHE 1 |
| BPHE 102 | and | CHE 1 |
| BPHE 101 | and | CHE 3L |
| PHE 4 | and | MTE 4 |

NOTE that YOU MUST OPT FOR ELECTIVE COURSES FROM AT LEAST 2 DISCIPLINES in SCIENCE. YOU **CANNOT** OPT FOR ELECTIVE COURSES FROM MORE THAN 4 DISCIPLINES. You can opt for a *minimum* of 8 and a *maximum* of 48 credits in any one discipline, which you decide to study. **DO NOT OPT FOR LESS THAN 8 CREDITS OR MORE THAN 48 CREDITS IN ANY ONE DISCIPLINE.**

For both B.Sc. (Major) and B.Sc. (General) degrees, at least 25% of the total elective credits in Physics, Chemistry and Life Sciences **must be from laboratory courses.**

Please choose your courses carefully so as to make meaningful combinations. You can consult your Counsellor(s)/ Coordinator, if you like. Students pursuing B.Sc. (General) and B.Sc.(Major) in Chemistry, Mathematics, Botany, Zoology or Physics are free to choose any AOCs of their choice in the 3rd year. If you opt for AOCs worth 4 credits each from the list, choose **at least two** 4 credits AOCs to make up a total of 8 credits of AOCs.

Table – III

B.Sc. (Major)

To obtain B.Sc. (Major) in any discipline, the **number of credits** that you opt for in the **elective courses** from that discipline, must be as given in the following table:

| Discipline | Total Credits | Elective courses |
|-------------|---------------|--|
| Botany | 48 | LSE 1 to 8(L) and the package* of LSE 12, 13 & 14(L) |
| Chemistry | 40 (Minimum) | CHE 1 to CHE 12(L) |
| Mathematics | 40 (Minimum) | MTE 1, 2, 4 to 9 worth 28 credits are compulsory. Remaining 12 credits may be opted from MTE 10 to MTE 14 |
| Physics | 48 | BPHE 101, BPHE 102, BPHL 103, PHE 4 to PHE 13 and any one elective from PHE-14 to PHE-16 |
| Zoology | 48 | LSE 1 to 8(L) and the package* of LSE 9, 10 & 11(L) |

* Please note that the courses **LSE 09, 10 & 11(L)** are to be taken together as a package. You will not be allowed to opt for any individual course from the package. Similarly, **LSE 12, 13 & 14(L)** are also to be taken together as a package. **YOU CANNOT OPT FOR MORE THAN 48 CREDITS IN ANY ONE DISCIPLINE.**

B.Sc. (General)

For any combination of Science Electives other than those given above, you will be awarded a B.Sc. (General) degree.

For both B.Sc. (Major) and B.Sc. (General) degrees, at least 25% of the total elective credits in Physics, Chemistry and Life Sciences **must be from laboratory courses.**

You can choose your courses in II & III year from the list of courses given in the table below:

Table – IV

| COURSE | II YEAR | III YEAR |
|------------------------------|---|---|
| FOUNDATION COURSE | Compulsory Course BSHF-101 | NIL |
| ELECTIVE COURSES | 24 Credits from : PHE - BPHE 101, BPHE 102, BPHL 103, PHE 4, 5, 6, 7, 8L, 9, 10 & 15 CHE - 1, 2, 3L, 4, 5, 6, 7L, 8L, 9, 11L & MTE03 LSE - 1, 2, 3, 4L, 5, 6, 7, 8L & MTE03 MTE - 1, 2, 4, 5, 6, 7, 8, 9 & 10 | 16 or 24 Credits from : PHE - BPHE 101, BPHE102, BPHL 103, PHE 4, 5, 6, 7, 8L, 9, 10, 11, 12L, 13, 14, 15 & 16 CHE - 1, 2, 3L, 4, 5, 6, 7L, 8L, 9, 10, 11L, 12L & MTE03 LSE - 1, 2, 3, 4L, 5, 6, 7, 8L, MTE 3, LSE (9, 10 & 11L) or (12, 13 & 14L) MTE - 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 & 14 |
| APPLICATION-ORIENTED COURSES | NIL | Compulsory: 8 to 16 credit courses from Group-A1 |

PLEASE NOTE

- You can take electives (56 or 64 credits) from a minimum of TWO and a maximum of FOUR science disciplines, viz. Physics, Chemistry, Life Sciences and Mathematics.
- You can opt elective courses worth a **MINIMUM OF 8 CREDITS** and a **MAXIMUM OF 48 CREDITS** in any of the four disciplines: Physics, Chemistry, Life Sciences and Mathematics.
- For both B.Sc. (Major) and B.Sc. (General) degrees, at least 25% of the total elective credits opted for in **Physics, Chemistry and Life Sciences must be from laboratory courses.** For example, if you opt for a total 64 credits of electives in these 3 disciplines, at least 16 credits out of those 64 credits must be from laboratory courses. **Otherwise your result will not be declared and the responsibility will be yours.**
- You cannot appear in the Term-End Examination of any course without getting registered for the same. Otherwise your result will not be declared and the responsibility will be yours.**