



Royal College of Arts Science and Commerce (Autonomous)

Affiliated to University of Mumbai

Program: F. Y. B. Com

Course: EXCEL

Syllabus for Semester: I and II

Syllabus for Undergraduate Programme as per
National Education Policy (NEP-2020) with effect from the
academic year 2024-2025

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|---------------------------|----------------------------|
| Course/ Paper Title | EXCEL |
| Course offered as | VSC |
| Course Code | RUCVSC101 |
| Semester | I |
| No. of Credits | 2 (1 Lecture +1 Practical) |
| No. of lecture Hours/week | 3 |

| Sr No. | Course Objectives: |
|--------|---|
| 1 | To introduce spreadsheets. |
| 2 | To introduce concept of data analysis. |
| 3 | To introduce use and utility of functions and formulas on excel spreadsheet |

Course Outcome:

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|-----|--|
| | On completing the course, the student will be able to: |
| CO1 | Students will be able to do basic spreadsheet task like navigate, enter and edit data. |
| CO2 | Students will be able to analyze data using Pivot Tables |
| CO3 | Students will be able to perform basic operations using function. |

Detailed Syllabus:

| Module | Title with content | No. of lectures |
|--------|---|-----------------|
| I | <p>Creating and Navigating worksheets and adding information to worksheets: Types of data, entering different types of data such as texts, numbers, dates, functions. Quick way to add data Auto complete, Autocorrect, Auto fill, Auto fit. Undo and Redo. Moving data, contiguous and noncontiguous selections, Selecting with keyboard. Cut-Copy, Paste. Adding and moving columns or rows. Inserting columns and rows. Find and replace values. Spell check. Formatting cells, Numbers, Date, Times, Font, Colors, Borders, Fills.</p> <p>Multiple Spreadsheets: Adding, removing, hiding and renaming worksheets. Add headers/Footers to a Workbook. Page breaks, preview. Creating formulas, inserting functions, cell references, Absolute, Relative (within a worksheet, other worksheets and other workbooks).</p> | 7L + 7P |
| II | <p>Functions: Financial functions: FV, PV, PMT, PPMT, IPMT, NPER, RATE, Mathematical and statistical functions. ROUND, ROUNDDOWN, ROUNDUP, CEILING, FLOOR, INT, MAX, MIN, MOD, SQRT, ABS, SUM, COUNT, AVERAGE.</p> <p>Data Analysis: Sorting, Subtotal. Pivot Tables- Building Pivot Tables, Pivot Table regions, Rearranging Pivot Table. The Graphical representation of data Column, Line, Pie and Bar charts.</p> | 8L + 8P |

Practical topics:

1. Entering different types of data such as texts, numbers, dates, functions.
2. Auto complete, Autocorrect, Auto fill, Auto fit. Undo and Redo.
3. Moving data, contiguous and non contiguous selections, Selecting with keyboard. Cut-Copy, Paste.
4. Adding and moving columns or rows. Inserting columns and rows
5. Find and replace values. Spell check
6. Formatting cells, Numbers, Date, Times, Font, Colors, Borders, Fills
7. Adding, removing, hiding and renaming worksheets.
8. Add headers/Footers to a Workbook. Page breaks, preview.
9. Creating formulas, inserting functions
10. Cell references, Absolute, Relative
11. Financial functions: FV, PV, PMT, PPMT, IPMT, NPER, RATE,
12. Mathematical and statistical functions. ROUND, ROUNDDOWN, ROUNDUP, CEILING, FLOOR, INT, MAX, MIN, MOD, SQRT, ABS, SUM, COUNT, AVERAGE
13. Sorting, Subtotal
14. Building Pivot Tables, Pivot Table regions, Rearranging Pivot Table.
15. Graphical representation of data.

References:

1. Wayne. L. Winston, Microsoft Excel 2010, Data Analysis and Business Modelling, E.E.E.

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| Course/ Paper Title | ADVANCED EXCEL |
| Course offered as | VSC |
| Course Code | RUCVSC201 |
| Semester | II |
| No. of Credits | 1 L+ 1 P |
| No. of lecture Hours/week | 3 |

| Sr No. | Course Objectives: |
|---------------|---|
| 1 | To introduce templates. |
| 2 | To introduce concept of data analysis |
| 3 | To introduce use and utility of functions and formulas on excel spreadsheet |

Course Outcome:

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| | On completing the course, the student will be able to: |
| CO1 | Students will be able to use Excel templates |
| CO2 | Students will be able to perform advanced operations using function. |
| CO3 | Students will be able to analyze data using goal seek |

Detailed Syllabus:

| Module | Title with content | No. of lectures |
|---------------|---|------------------------|
| I | Multiple Spread sheets: Creating and using templates, using predefined templates, Adding protection option. Creating and Linking Multiple Spreadsheets. Using formulas and logical operators. Creating and using named ranges. Creating Formulas that use reference to cells in different worksheets. | 7L + 7P |
| | Functions: Database Functions LOOKUP, VLOOKUP, HLOOKUP Conditional Logic functions IF, Nested IF, COUNTIF, SUMIF, AVERAGEIF, String functions LEFT, RIGHT, MID, LEN, UPPER, LOWER, PROPER, TRIM, FIXED | |
| II | Functions: Date functions TODAY, NOW, DATE, TIME, DAY, MONTH, YEAR, WEEKDAY, DAYS360, Statistical Functions COUNTA, COUNTBLANK, CORREL, LARGE, SMALL | 8L + 8P |
| | Data Analysis: Filter with customized condition. Using Scenarios, creating and managing a scenario. Using Goal Seek, Using Solver, Understanding Macros, Creating, Recording and Running Simple Macros. | |

Practical topics:

1. Creating and using templates, using predefined templates
2. Creating and Linking Multiple Spreadsheets
3. Using formulas and logical operators
4. Creating and using named ranges
5. Creating Formulas that use reference to cells in different worksheets.
6. Database Functions LOOKUP, VLOOKUP, HLOOKUP
7. Conditional Logic functions IF, Nested IF, COUNTIF, SUMIF, AVERAGEIF
8. String functions LEFT, RIGHT, MID, LEN, UPPER, LOWER, PROPER, TRIM, FIXED
9. Date functions TODAY, NOW, DATE, TIME, DAY, MONTH, YEAR, WEEKDAY, DAYS360
10. Statistical Functions COUNTA, COUNTBLANK, CORREL, LARGE, SMALL
11. Using Scenarios, creating and managing a scenario
12. Using Goal Seek, Using Solver
13. Understanding Macros, Creating, Recording and Running Simple Macros

References:

1. Wayne. L. Winston, Microsoft Excel 2010, Data Analysis and Business Modelling, E.E.E.

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Evaluation Pattern

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| a | Sem end practical examination | 30 marks |
| b | VIVA | 10 marks |
| c | Journal | 10 marks |
| | Total | 50 marks |

Board of studies in Mathematics

| Category | Name and Designation | Affiliation | Signature |
|---|---|---|----------------------------------|
| 1 Chairperson (Head of Department) | Mrs Komal Pravin Wategaonkar Assistant Professor | University of Mumbai | <i>K. Wategaonkar</i> 22/6/24 |
| 2 Full time teachers of the Department | Mrs Rugma Pramod Nair Assistant Professor | University of Mumbai | <i>R. Nair</i> 22/6/24 |
| 3 Two subject experts from outside the Parent University nominated by the Academic Council. | Dr Ananthnarayan Hariharan Associate Professor | I.I.T., Bombay | FEEDBACK SENT ON OFFICIAL EMAIL |
| | Dr. Amiya Bowmick Assistant Professor | ICT Mumbai | online |
| 4 One expert nominated by the Vice-Chancellor One expert nominated by the College Principal. | Dr. Rajesh Raut Assistant Professor RD National College | University of Mumbai | <i>R. Raut</i> 22/06/2024 |
| | Mr. Subhash Krishnan Associate Professor, Vice Principal, KJ Somaiya college of Science and Commerce | University of Mumbai | <i>Subhas</i> 22/6/24 |
| 5 One representative from industry/corporate sector/allied area relating to placement. | Mr. Arbaz Sayed Data Scientist | Reliance Corporate Park, Ghansoli, NaVi Mumbai | <i>Arbaz</i> 22/6/24 |
| 6 One postgraduate meritorious alumnus nominated by the Principal. | Ms Harshita Rathore Team Lead, Inventory Management, | Cisco, Atlanta, USA | online |



Principal
**ROYAL COLLEGE OF ARTS
 SCIENCE & COMMERCE**
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