**List of Credit Courses to Implemented in M.Sc. (Ag.) Soil Science Programme**

at

Veer Bahadur Singh Purvanchal University, Jaunpur

**Ist Semester**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Code No.** | **Course Title** | **Credit Hours** | **Theory** | | **Practical** | **Total** |
| **Mid** | **Final** |
| SSAC-504 | Soil Mineralogy, Genesis, Classification and Survey | 3(2+1) | 30 | 50 | 20 | 100 |
| SSAC-509 | Soil, Water and Air Pollution | 3(2+1) | 30 | 50 | 20 | 100 |
| SSAC-511 | Analytical Techniques and Instrumentals Methods | 2(0+2) | 30 | 50 | 20 | 100 |
| STAT-551 | Statistical methods | 3(3+0) | 50 | 50 | 00 | 100 |
|  | **Total Credit** | **11** |  |  |  |  |

**IInd Semester**

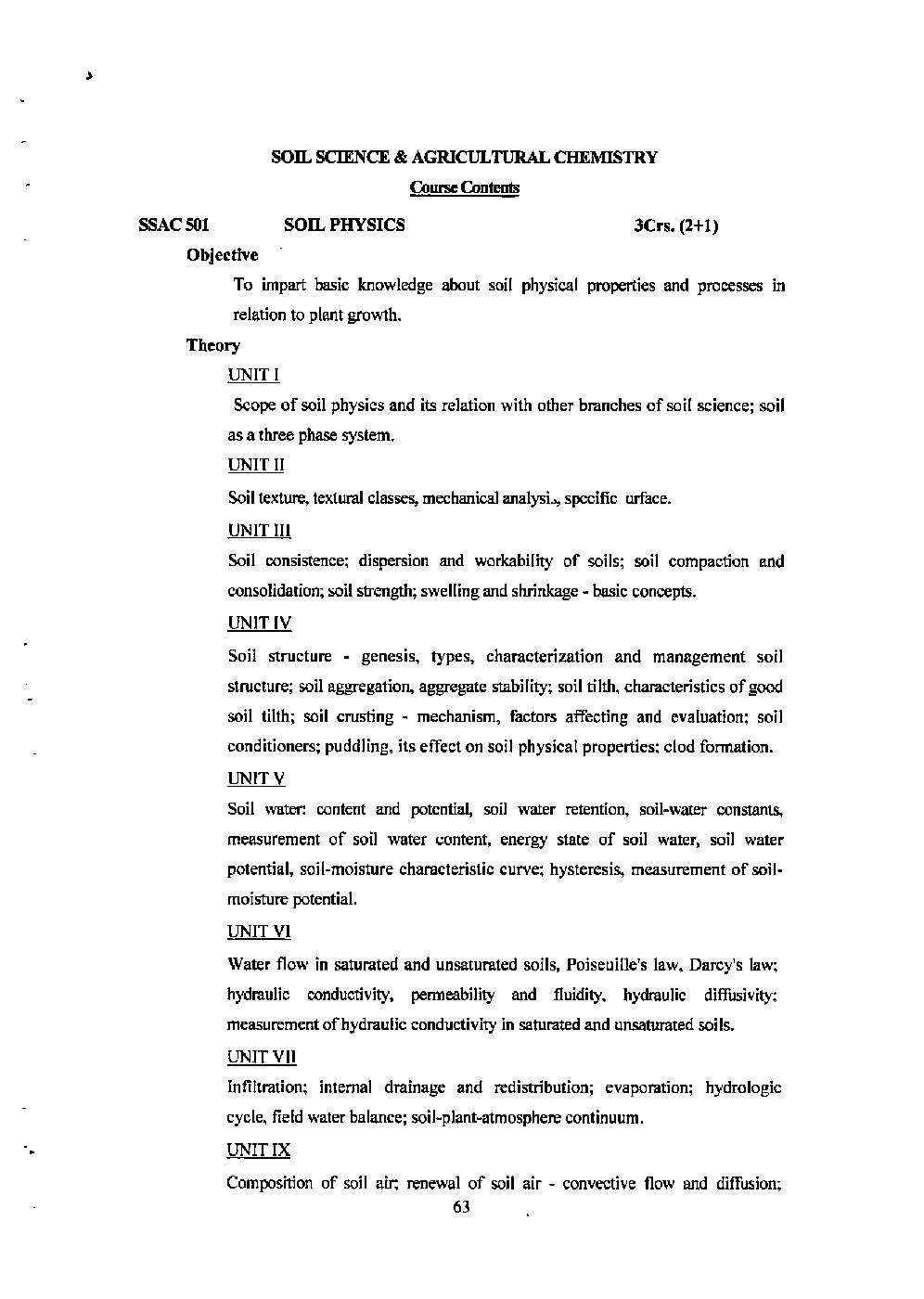
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| --- | --- | --- | --- | --- | --- | --- |
| **Code No.** | **Course Title** | **Credit Hours** | **Theory** | | **Practical** | **Total** |
| **Mid** | **Final** |
| SSAC-501 | Soil Physics | 3(2+1) | 30 | 50 | 20 | 100 |
| SSAC-502 | Soil Fertility and Fertilizer Use | 4(3+1) | 30 | 50 | 20 | 100 |
| SSAC-506 | Soil Biology and Biochemistry | 3(2+1) | 30 | 50 | 20 | 100 |
| STAT-552 | Experimental Designs | 2(2+0) | 50 | 50 | 00 | 100 |
|  | **Total Credit** | **12** |  |  |  |  |

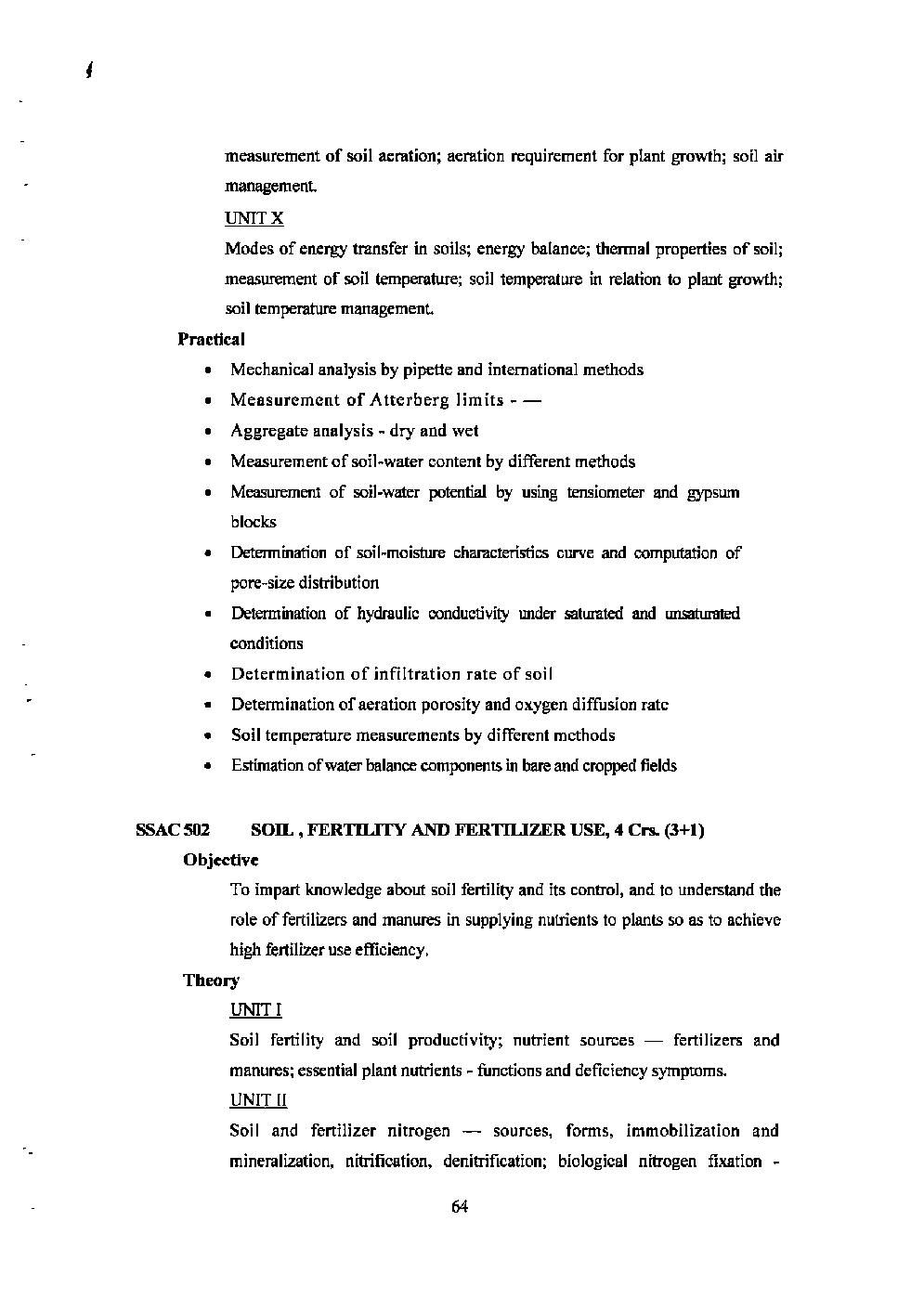
**IIIrd Semester**

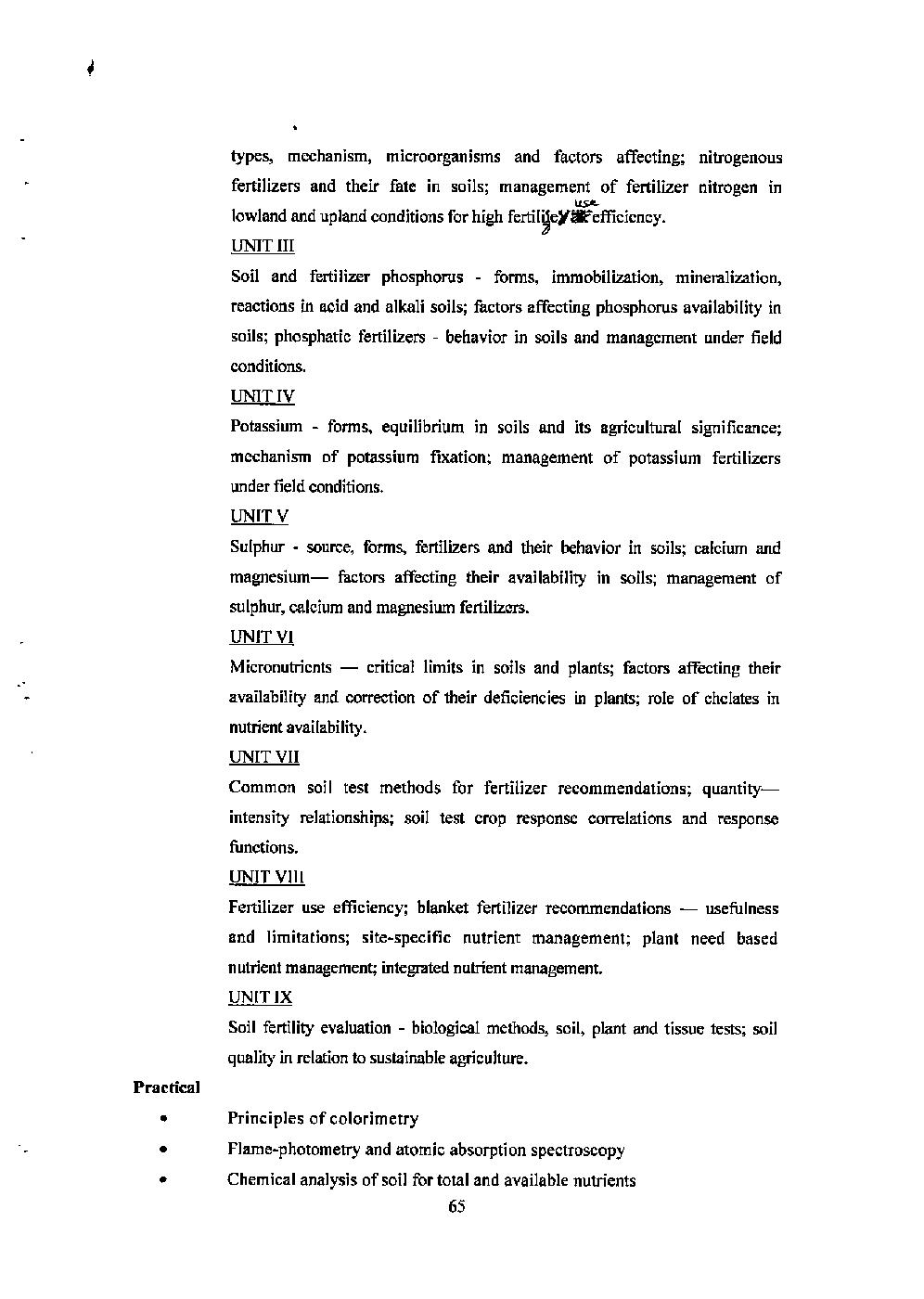
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| --- | --- | --- | --- | --- | --- | --- |
| **Code No.** | **Course Title** | **Credit Hours** | **Theory** | | **Practical** | **Total** |
| **Mid** | **Final** |
| SSAC-503 | Soil Chemistry | 3(2+1) | 30 | 50 | 20 | 100 |
| SSAC-505 | Soil Erosion and Conservation | 3(2+1) | 30 | 50 | 20 | 100 |
| SSAC-510 | Remote Sensing and GIS Techniques for Soil and Crop Studies | 3(2+1) | 30 | 50 | 20 | 100 |
|  | **Total Credit** | **09** |  |  |  |  |

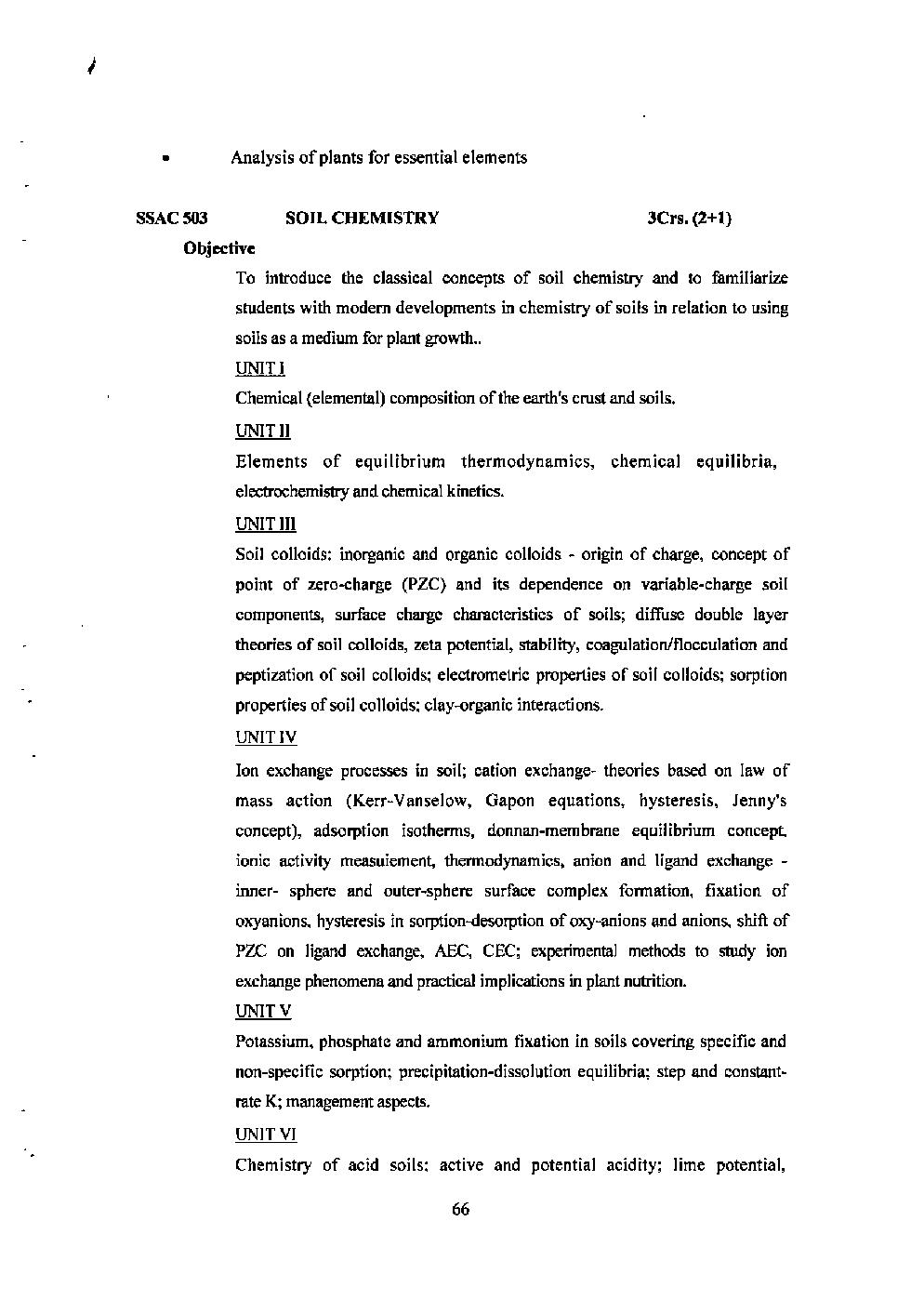
**IVth Semester**

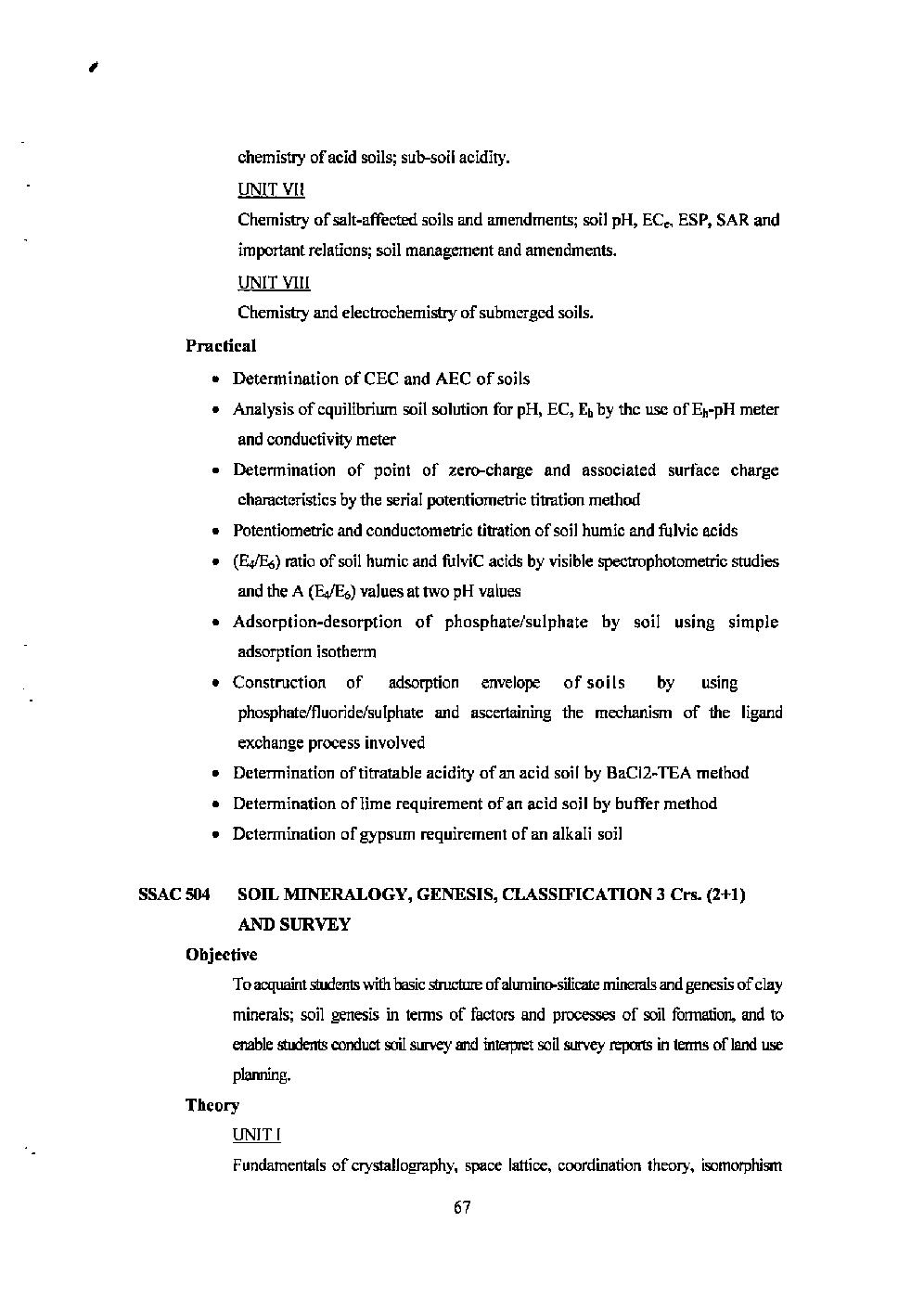
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| --- | --- | --- | --- | --- | --- | --- |
| **Code No.** | **Course Title** | **Credit Hours** | **Theory** | | **Practical** | **Total** |
| **Mid** | **Final** |
| SSAC-513 | Management of Problematic Soil | 3(2+1) | 30 | 50 | 20 | 100 |
| SSAC -591 | Seminar | 1 |  |  |  | 100 |
| SSAC -599 | Thesis/Research Work | 20 | 50 | 30 | 20 | 100 |
|  | **Total Credit** | **24** |  |  |  |  |
|  | **Total Credit Hours** | **56** |  |  |  |  |

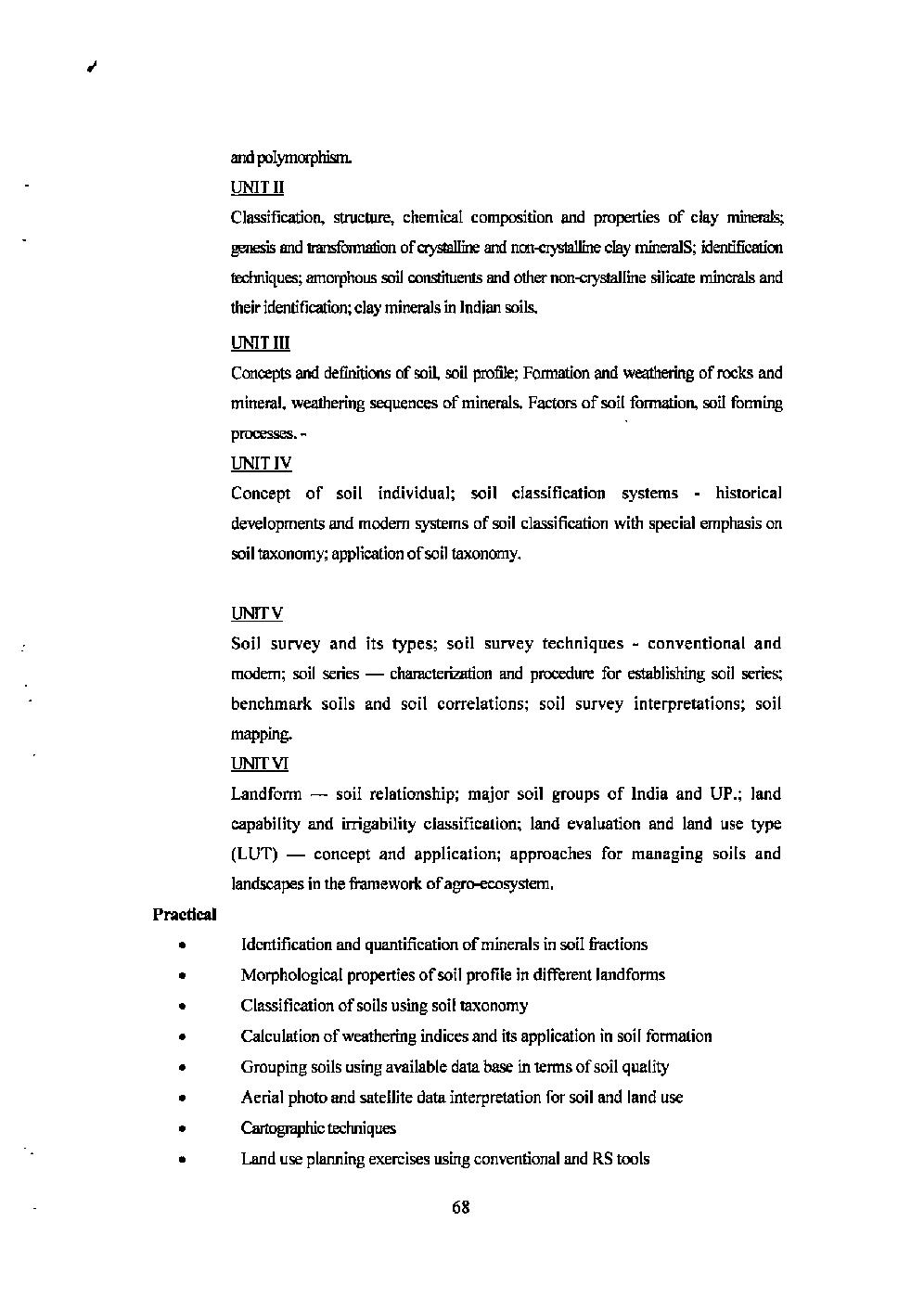


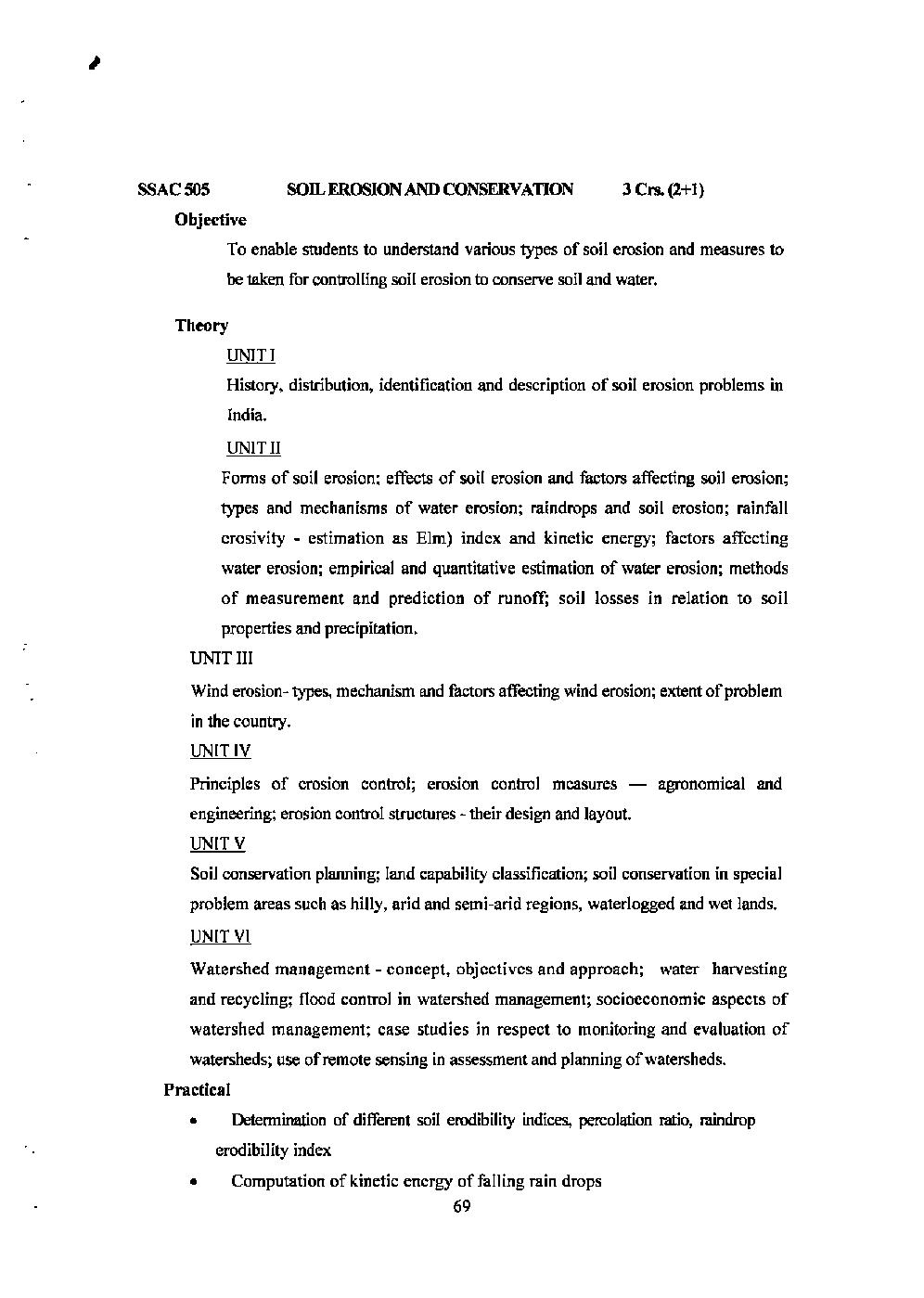


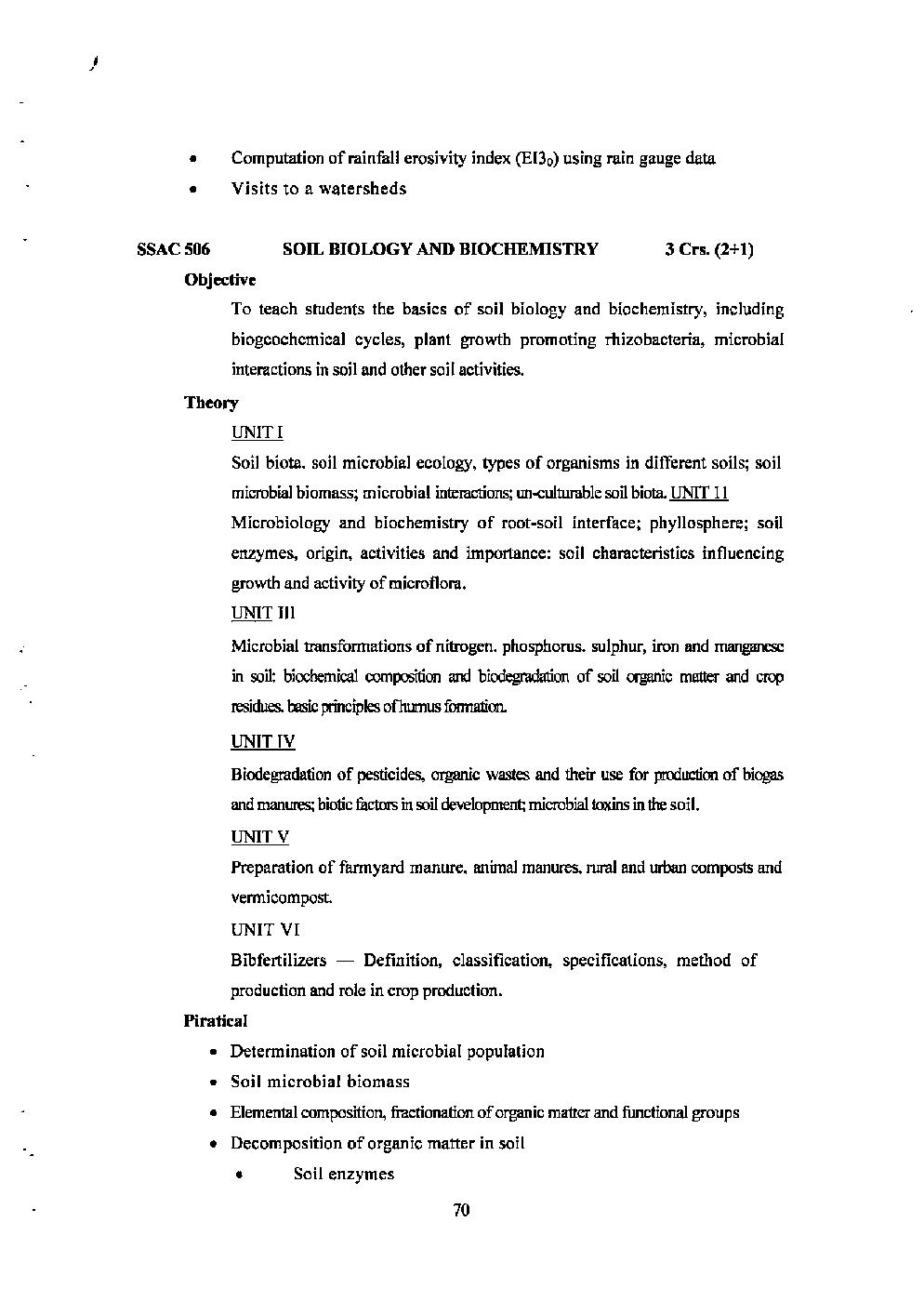


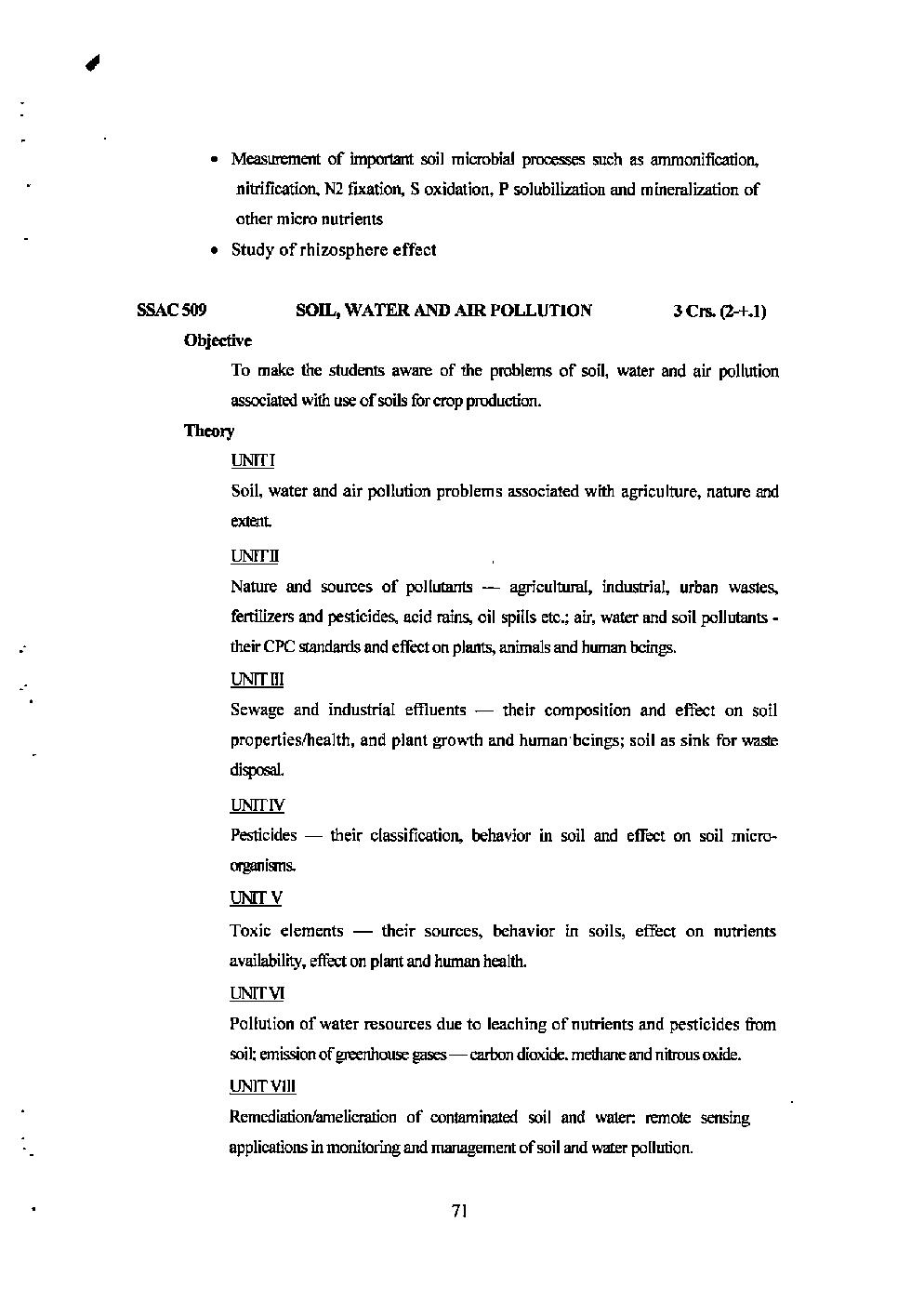


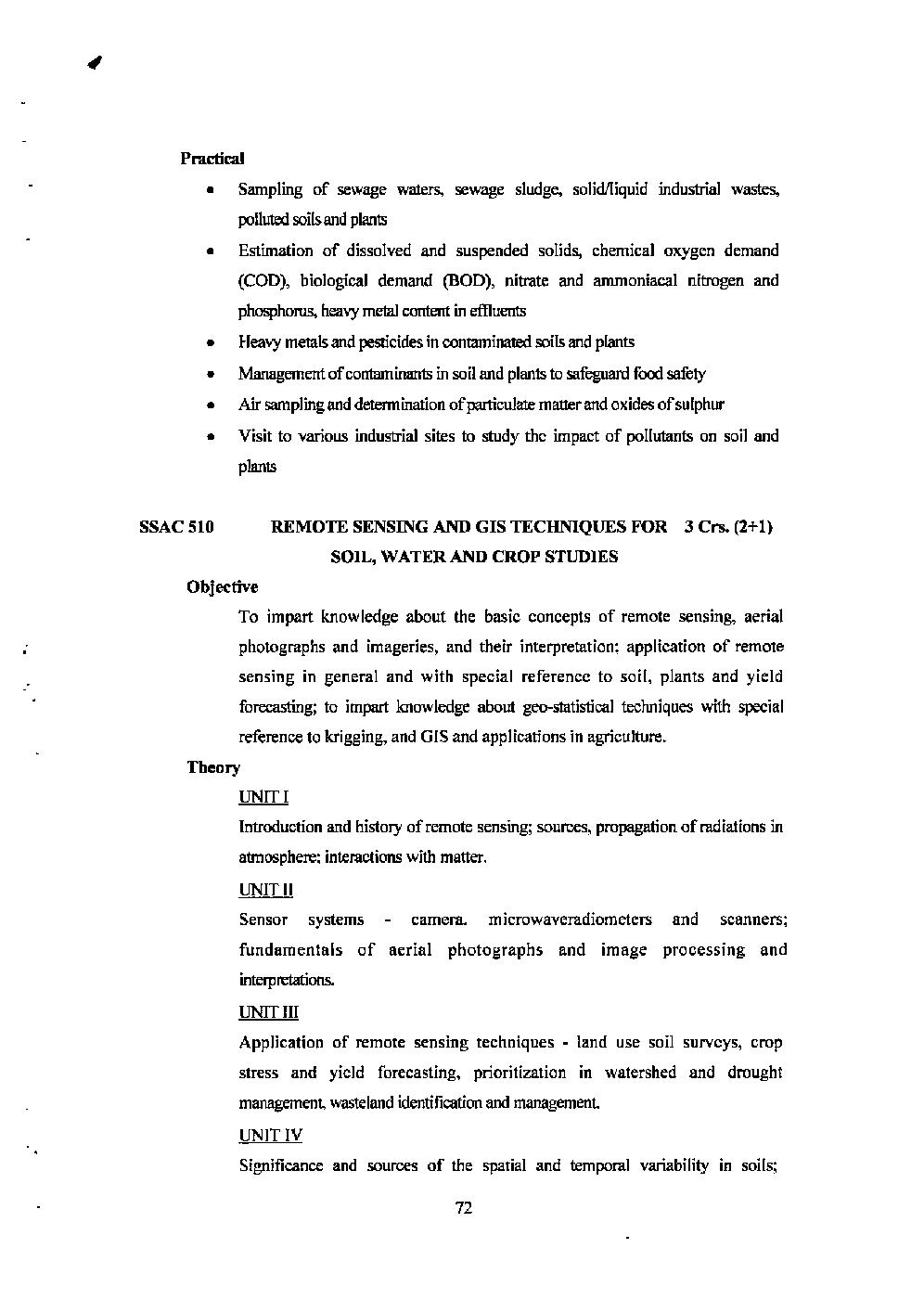


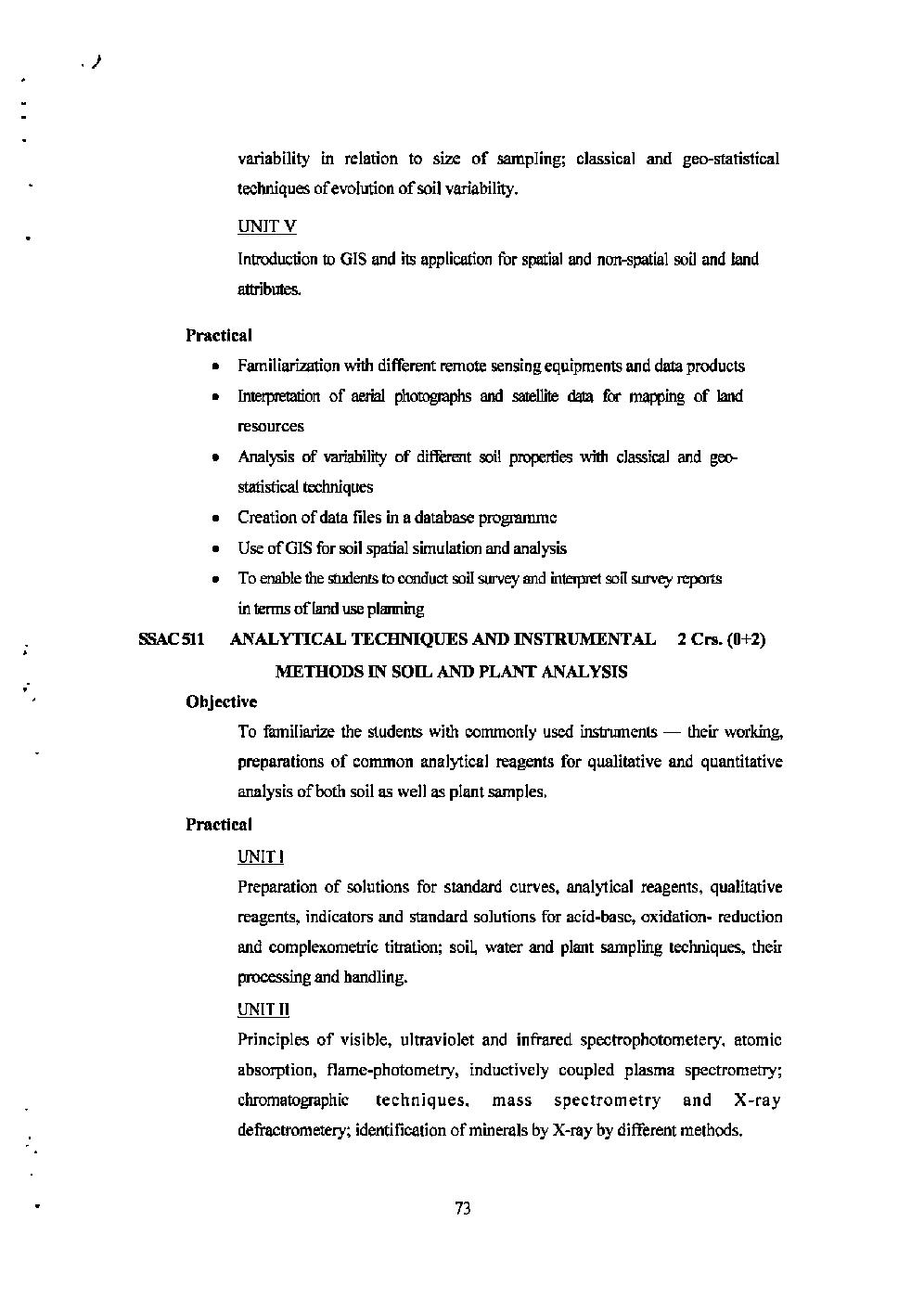


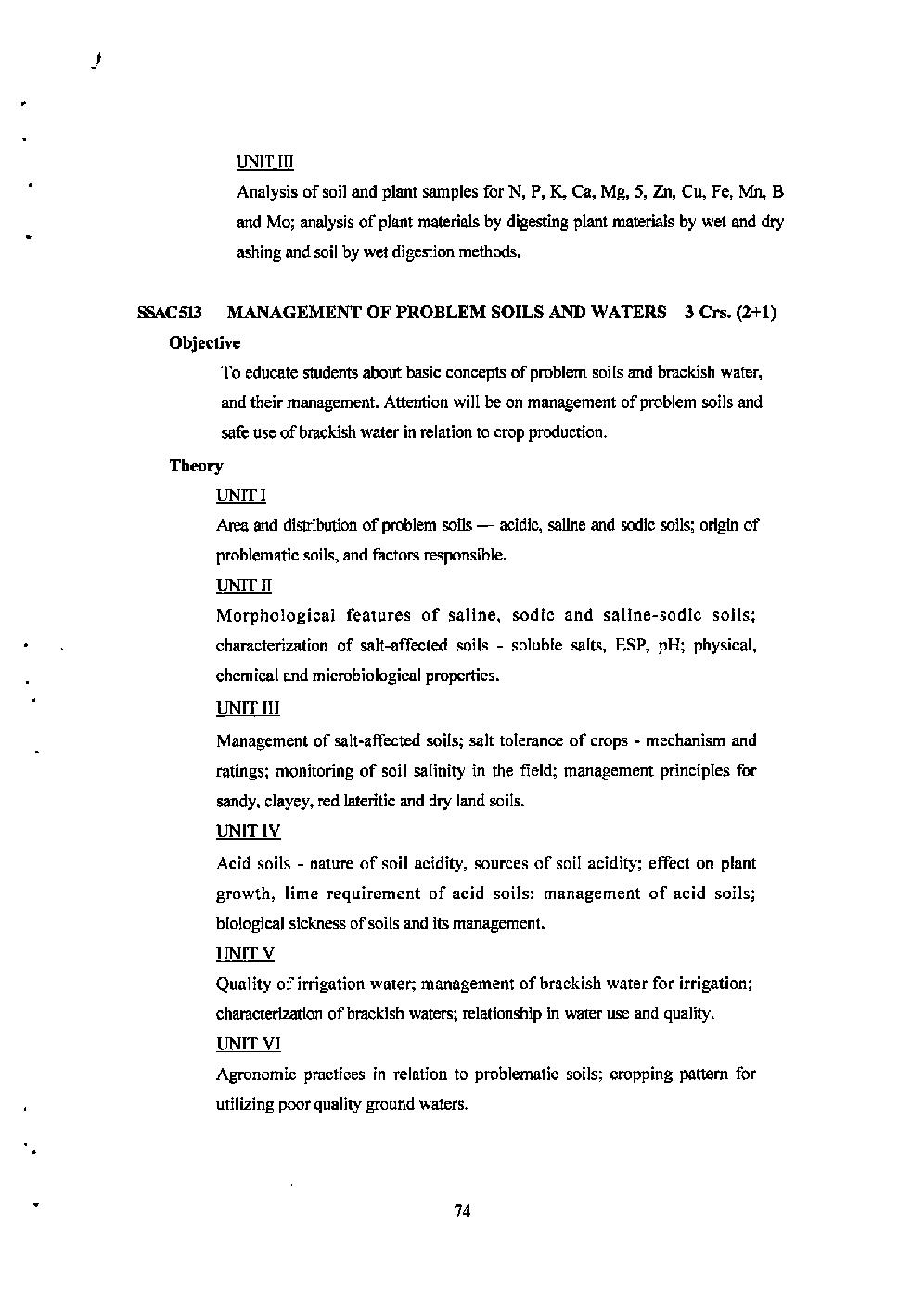


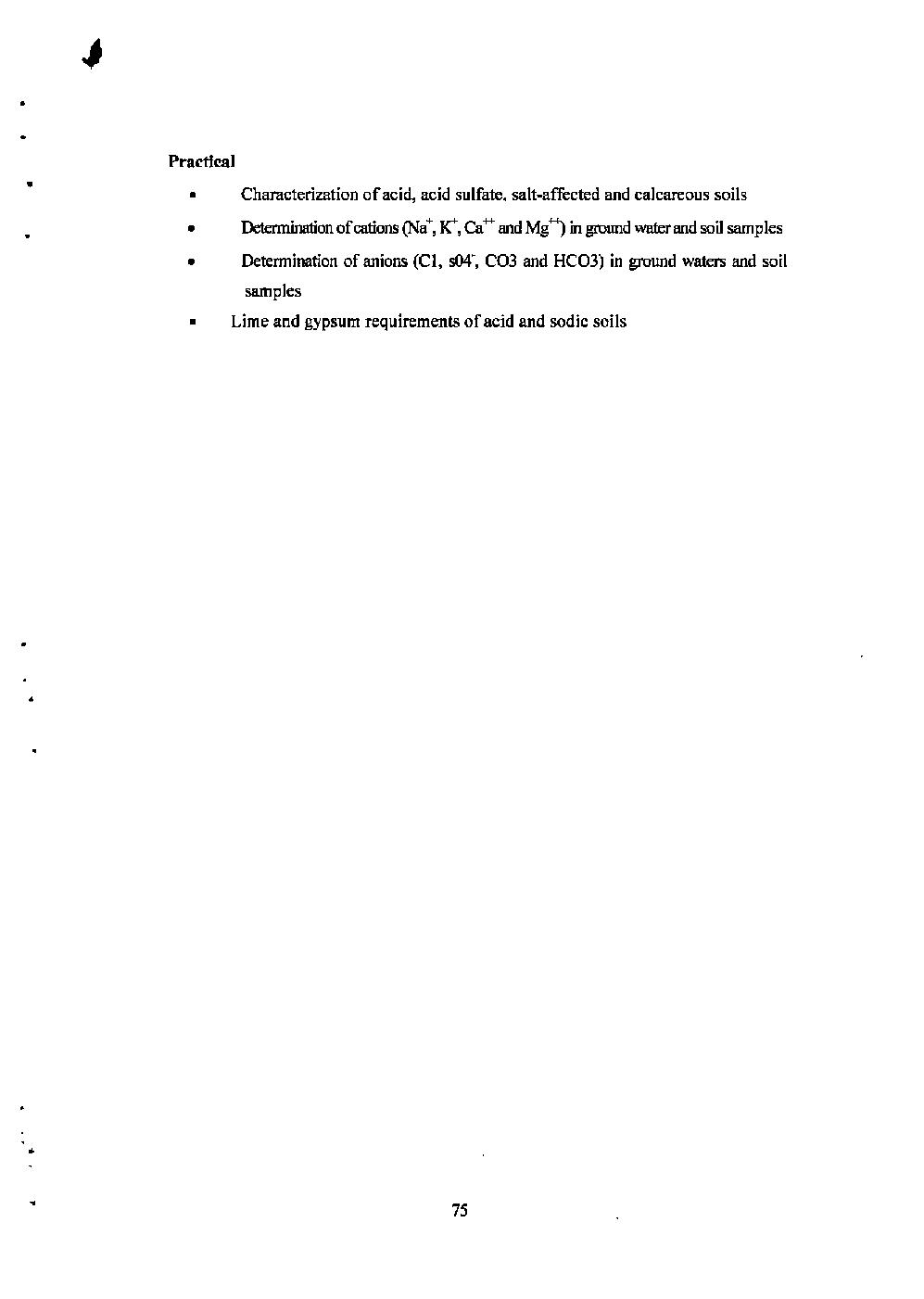












**Note:**

**Syllabus of STAT-551 and 552 shall be common for P.G Classes**

**Course Title- Statistical Methods 3(3+0)**

**Code No.:- STAT-551**

UNIT I

Summarization of data, classification and tabulation of data, Diagrammatic and Graphical Representations, utility and limitations of graphical Representation. Measure of central tendency, definition, merit, demerit, uses and properties of different measure of central tendency, measure of dispersion, moments, skewness and kurtosis.

UNIT II

Probability distribution, discrete probability distribution- Bernouli, poission, normal distribution. Theorem of addition of probability, theorem of multiplication of probability, Definition- (simple and compound events independent and dependents, mutually exclusive, complimentary events.)

UNIT III

Statistical Hypothesis, Null hypothesis, Two type of error, Statistical significance, parametric and nonparametric hypothesis, critical region, level of significance, practical application of simple test of significance viz, ‘t’ and ‘F’ test. X2 test as a goodness of Fit, properties of X2 distribution, conditions for application of X2 test.

UNIT IV

Correlation and its test of significance, line of regression and its test of significance. Correlation, measurement of correlation, limit and range of „ correlation coefficient expressed in term of regression coefficients. Rank correlation and its computations, regression equation.

**Course Title- Experimental Designs 2(2+0)**

**Code No.:- STAT-552**

UNIT I

Principles of experimental design, precision and accuracy, advantage of replication, experimental technique. Analysis of variance, fundamental principles of analysis of variance. Critical difference, limitations of the analysis of variance.

UNIT II

Statistical analysis and advantage and disadvantage of basic design-completely randomized design, randomized block design, Latin square design.

UNIT III

Factorial concept: simple effects, main effects and interaction, factorial experiments (without confounding), Yates method. Confounding, principles of confounding in a 23 factorial experiments. Split plot design.

UNIT IV

Missing plot technique; Bartlett’s techniques for missing plots, cross-overdesign or switch-over trials, Rotational experiments, progeny selection, compact family block design, uniformity trial, sire index, sampling in field experiments.