

U.P. TECHNICAL UNIVERSITY, LUCKNOW

REVISED STUDY AND EVALUATION SCHEME

B.Tech. First Year (Common to all Branches)

EFFECTIVE FROM THE SESSION: 2004-05

B.Tech. Leather Technology

Year: 1 Semester- I

| S.No | Course No. | Subject | Periods | | | Evaluation Schemes | | | | Subject Total |
|-------------------------------------|---------------------|--|-----------|----------|----------|--------------------|----------|------------|------------|---------------|
| | | | | | | Sessional Exam. | | | Exam. ESE | |
| | | | L | T | P | CT | TA | Total | | |
| THEORY SUBJECTS | | | | | | | | | | |
| 1. | TAS-101/ TAS-102 | Physics/Chemistry | 03 | 01 | 00 | 30 | 20 | 50 | 100 | 150 |
| 2. | TAS-103 | Professional Communication | 03 | 01 | 00 | 30 | 20 | 50 | 100 | 150 |
| 3. | TAS-104 | Mathematics-I | 03 | 01 | 00 | 30 | 20 | 50 | 100 | 150 |
| 4. | TEE-101/ TME-101 | Electrical Engineering/ Mechanical Engineering | 03 | 01 | 00 | 30 | 20 | 50 | 100 | 150 |
| 5. | TEC-101/ TIT-101 | Electronics Engineering/ Information Technology | 03 | 01 | 00 | 30 | 20 | 50 | 100 | 150 |
| PRACTICAL / DESIGN / DRAWING | | | | | | | | | | |
| 6. | TAS-151/ TAS-152 | Physics/ Chemistry | 0 | 0 | 02 | 10 | 10 | 20 | 30 | 50 |
| 7. | TEE-151/ TME-151 | Electrical Engineering/ Mechanical Engineering | 0 | 0 | 02 | 10 | 10 | 20 | 30 | 50 |
| 8. | TCS-151/ TWS-151 | Computer Programming Lab / Workshop Practice | 0 | 1 | 02 | 10 | 10 | 20 | 30 | 50 |
| 9. | TCE-151 | Engineering Graphics | 0 | 0 | 03 | 10 | 10 | 20 | 30 | 50 |
| 10. | GP 101 | General Proficiency | - | - | - | - | - | 50 | - | 50 |
| | | Total | 15 | 6 | 9 | - | - | 350 | 650 | 1000 |

B.Tech. Leather Technology

Year: 1 Semester- II

| S.No | Course No. | Subject | Periods | | | Evaluation Schemes | | | | Subject Total |
|-------------------------------------|---------------------|--|-----------|----------|----------|--------------------|----------|------------|------------|---------------|
| | | | | | | Sessional Exam. | | | Exam. ESE | |
| | | | L | T | P | CT | TA | Total | | |
| THEORY SUBJECTS | | | | | | | | | | |
| 1. | TES-201 | Environmental Studies | 03 | 01 | 00 | 30 | 20 | 50 | 100 | 150 |
| 2. | TAS-202/ TAS-201 | Chemistry/ Physics | 03 | 01 | 00 | 30 | 20 | 50 | 100 | 150 |
| 3. | TAS-204 | Mathematics-II | 03 | 01 | 00 | 30 | 20 | 50 | 100 | 150 |
| 4. | TME-201/ TEE-201 | Mechanical Engineering/ Electrical Engineering | 03 | 01 | 00 | 30 | 20 | 50 | 100 | 150 |
| 5. | TIT-201/ TEC-201 | Information Technology/ Electronics Engineering | 03 | 01 | 00 | 30 | 20 | 50 | 100 | 150 |
| PRACTICAL / DESIGN / DRAWING | | | | | | | | | | |
| 6. | TAS-252/ TAS-251 | Chemistry/ Physics | 0 | 0 | 02 | 10 | 10 | 20 | 30 | 50 |
| 7. | TME-251/ TEE-251 | Mechanical Engineering/ Electrical Engineering | 0 | 0 | 02 | 10 | 10 | 20 | 30 | 50 |
| 8. | TWS-251/ TCS-251 | Workshop Practice / Computer Programming Lab | 0 | 1 | 02 | 10 | 10 | 20 | 30 | 50 |
| 9. | TAS-253 | Communication Lab (English) | 0 | 0 | 03 | 30* | 20* | 50 | - | 50 |
| 10. | GP 201 | General Proficiency | - | - | - | - | - | 50 | - | 50 |
| | | Total | 15 | 6 | 9 | - | - | 410 | 590 | 1000 |

CT - Cumulative test, TA -Teacher Assessment, ESE - End Semester Examination

- - Day to day evaluation

| Sl. No. | Course Code | Subject | Periods | | | Evaluation Scheme | | | | Subject Total |
|--------------------|---------------|---|---------|---|---|-------------------|----|-------|-----|---------------|
| | | | L | T | P | Sessionals | | | ESE | |
| THEORY SUBJECTS | | | L | T | P | CT | TA | Total | ESE | |
| 1. | * TAS – 301 | Mathematics – III | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 2. | **T CY – 301 | Chemistry – I | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 3. | ***T CH – 307 | Fluid Flow and Solid Handling | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 4. | TLT – 301 | Leather Microscopy and Bacteriology | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 5. | ***TME-307 | Mechanics of Solids | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| Practicals | | | | | | | | | | |
| 6. | ***TCH-357 | Fluid Mechanics lab | 0 | 0 | 3 | 10 | 10 | 20 | 30 | 50 |
| 7. | ** TCY – 351 | Chemistry – I Lab. | 0 | 0 | 3 | 10 | 10 | 20 | 30 | 50 |
| 8. | TLT- 351 | Leather microscopy and Bacteriology Lab | 0 | 0 | 6 | 20 | 20 | 40 | 60 | 100 |
| 9. | GP-301 | General Proficiency | | | | | | 50 | - | 50 |
| Grand Total | | | | | | | | | | 1000 |

* Common to all engineering and chemical Technology Branches; ** Common to Chemical Engineering and Chemical Technology; *** Common to all Branches of Chemical Technology

| S. No. | Course code | Subject | Periods | | | Evaluation Scheme | | | | Subject Total |
|------------------------|-------------|---|---------|---|---|-------------------|----|-------|-------|---------------|
| | | | L | T | P | Sessionals | | | Exam. | |
| | | | | | | CT | TA | Total | ESE | |
| THEORY SUBJECTS | | | | | | | | | | |
| 1. | **T AS-401 | Computer Based Numerical Methods | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 2. | **TCY-401 | Chemistry-II | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 3. | **TCH-401 | Heat Transfer Operations | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 4. | **TCH-407 | Industrial Fuels and Process Calculations | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 5. | TLT-401 | Skin Protein and Pretannages | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| Practicals | | | | | | | | | | |
| 6. | ** TAS-451 | Numerical Techniques Lab | 0 | 0 | 3 | 10 | 10 | 20 | 30 | 50 |
| 7. | **TCY-451 | Chemistry-II Lab | 0 | 0 | 3 | 10 | 10 | 20 | 30 | 50 |
| 8. | TLT-451 | Skin Protein and Pretannages Lab. | 0 | 0 | 6 | 20 | 20 | 40 | 60 | 100 |
| 9. | GP-401 | General Proficiency | | | | | | 50 | -- | 50 |
| Grand Total | | | | | | | | | | 1000 |

*Common to all Engineering and Chemical Technology Branches.

**Common to Chemical Engineering and Chemical Technology Branches.

***Common to Chemical Technology Branches.

B.Tech. Leather Technology

Year: III Semester- V

| S.No. | Course Code | Subject | Evaluation Scheme | | | | | | | Sub Total |
|-----------------|-------------|--|-------------------|---|---|------------|----|-------|--------------------|-------------|
| | | | Period | | | Sessionals | | | Exam. | |
| THEORY SUBJECTS | | | L | T | P | TA | CT | Total | ESE | |
| 1. | *THU – 501 | Industrial Economics & Principles of Management | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 2. | **TCH – 506 | Mass Transfer Operations –I | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 3. | TLT – 501 | Analysis of Material of Leather Manufacture | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 4. | TLT – 502 | Inorganic Tannages | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 5. | TLT – 503 | Organic Tannages | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| Practicals | | | | | | | | | | |
| 6. | TLT – 551 | Analysis of Material of Leather Manufacture Lab. | 0 | 0 | 6 | 20 | 20 | 40 | 60 | 100 |
| 7. | TLT – 552 | Leather Processing Lab – I | 0 | 0 | 6 | 20 | 20 | 40 | 60 | 100 |
| 8. | GP – 501 | General Proficiency | | | | | | 50 | | 50 |
| | | | | | | | | | Grand Total | 1000 |

*Common to all Engineering and Chemical Technology Branches.

**Common to Chemical Engineering and Chemical Technology Branches.

***Common to Chemical Technology Branches.

B.Tech. Leather Technology

Year: III Semester- VI

| S.No. | Course Code | Subject | Evaluation Scheme | | | | | | | Sub Total |
|-----------------|-------------|---|-------------------|---|---|------------|----|-------|--------------------|-------------|
| | | | Period | | | Sessionals | | | Examination | |
| THEORY SUBJECTS | | | L | T | P | TA | CT | Total | ESE | |
| 1. | ***TCH-606 | Chemical Engineering Thermodynamics | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 2. | **TCH-607 | Mass Transfer Operations –II | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 3. | TLT – 601 | Leather Biotechnology | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 4. | TME-609 | Machine Design | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 5. | TLT – 602 | Post Tanning and Finishing Operations | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| Practicals | | | | | | | | | | |
| 6. | ***TCH–655 | Chemical Engineering Operations lab | 0 | 0 | 3 | 10 | 10 | 20 | 30 | 50 |
| 7. | TLT – 651 | Leather Analysis & Quality Control (Lab.) | 0 | 0 | 6 | 20 | 20 | 40 | 60 | 100 |
| 8. | TLT– 652 | Seminar | 0 | 0 | 3 | 50 | - | 50 | - | 50 |
| 9. | GP – 601 | General Proficiency | | | | | | 50 | - | 50 |
| | | | | | | | | | Grand Total | 1000 |

*Common to all Engineering and Chemical Technology Branches.

**Common to Chemical Engineering and Chemical Technology Branches.

***Common to Chemical Technology Branches.

| | | | Evaluation Scheme | | | | | | | |
|-----------------|-------------|-------------------------------------|-------------------|---|---|------------|----|-------|--------------------|-------------|
| S.No | Course Code | Subject | Periods | | | Sessionals | | | Exam. | Sub Total |
| THEORY SUBJECTS | | | L | T | P | TA | CT | Total | ESE | |
| 1 | TLT-701 | Processing of Leather - I | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 2. | TLT – 702 | Tannery Effluent Treatment | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 3. | ***TCH-706 | Instrumentation and Process Control | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 4. | ***TCH-707 | Chemical Reaction Engineering | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 5. | #TOE-37 | Open Elective – Leather Technology | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| Practicals | | | | | | | | | | |
| 6 | TLT-751 | Leather Processing Lab. - II | 0 | 0 | 6 | 20 | 20 | 40 | 60 | 100 |
| 7. | TLT-752 | Project (Term Work) | 0 | 0 | 3 | 25 | 25 | 50 | | 50 |
| 8. | TLT-753 | Industrial Training | 0 | 0 | 3 | 25 | 25 | 50 | | 50 |
| 9 | GP-701 | General Proficiency | 0 | 0 | 3 | | | 50 | | 50 |
| | | | | | | | | | Grand Total | 1000 |

*Common to all Engineering and Chemical Technology Branches.

**Common to Chemical Engineering and Chemical Technology Branches.

***Common to Chemical Technology Branches.

For Branches other than Oil Technology

| | | | Evaluation Scheme | | | | | | | |
|-----------------|--|---|-------------------|---|----|------------|----|-------|--------------------|-------------|
| S.No | Course Code | Subject | Periods | | | Sessionals | | | Examination | Sub Total |
| THEORY SUBJECTS | | | L | T | P | CT | TA | Total | ESE | |
| 1. | TLT-011 TLT-012 TLT-021 TLT-022 | Elective-I Leather Auxiliaries Technology Animal & Tannery by Products Leather Trades Engg. Polymer Technology | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 2. | TLT-801 | Leather Analysis & Quality Control | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 3. | TLT-802 | Processing of Leather -II | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 4. | TLT-803 | Computer Aided Leather products Design | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| 5. | ***TCH-806 | Industrial Safety and Hazard Management | 3 | 1 | 0 | 30 | 20 | 50 | 100 | 150 |
| Practicals | | | | | | | | | | |
| 6. | TLT-851 | Project | 0 | 0 | 12 | 25 | 25 | 50 | 100 | 150 |
| 7. | TLT-852 | Industrial Tour | | | | | | 50 | | 50 |
| 8. | GP-801 | General Proficiency | | | | | | 50 | | 50 |
| | | | | | | | | | Grand Total | 1000 |

*Common to all Engineering and Chemical Technology Branches.

**Common to Chemical Engineering and Chemical Technology Branches.

***Common to Chemical Technology Branches.

U.P. TECHNICAL UNIVERSITY LUCKNOW



Syllabus of

B.Tech. I Year (I & II Semester)
[Common to all Branches]

Effective from the Session : 2004-05