

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPT./CENTRE: **Electronics and Computer Engineering**

1. Subject Code: **EC - 372** Course Title: **Compiler Lab**

2. Contact Hours: **L: 0 T: 0 P: 3**

3. Examination Duration (Hrs.): **Theory**

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Practical

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4. Relative Weightage: **CWS**

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5. Credits:

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 6. Semester

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Spring

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Both

7. Pre-requisite: **EC - 355.**

8. Subject Area: **DCC**

9. Objective: To give the students practice in writing various phases of a compiler and to familiarize them with various compiler writing tools.

10. Details of the Course:

| Sl. No. | Contents | Contact Hours |
|---------|---|---------------|
| | Design and coding of lexical analyzer manually. Use of LEX, LEX specification for tokens and construction of lexical analyzer, programming problems with LEX. Parser construction, producing simple desk calculator with YACC, generating postfix code with YACC. Machine code generation. | 14 x 3 |
| | Total | 42 |

11. Suggested Books:

| Sl. No. | Name of Books / Authors | Year of Publication |
|---------|--|---------------------|
| 1. | Aho, A.V., Lam, M., Sethi, R. and Ullman, J.D., "Compilers: Principles, Techniques and Tools", 2 nd Ed., Pearson Education. | 2007 |
| 2. | Das, V.V., "Compiler Design using FLEX and YACC", Prentice-Hall of India. | 2007 |
| 3. | Tremblay, J.P. and Sorenson, P.G., "Parsing Techniques: A Practical Guide", Ellis Horwood. | 1998 |