Department of Mathematics   **Faculty of Science**

MATH 327 (206327)   THEORY OF NUMBER I   3(3/3-0/0)

Prerequisite   MATH 203 (206203) or MATH 217 (206217) or MATH 261 (206261)

Course Description

　　　　Fundamental theorems of divisibility. Relatively primes. Integers. Congruent numbers. Residues. Fermat's theorem and Euler's generalization. Euler's function. Theory of congruences. Number of roots. Residual polynomials. Indices. Legendre's symbol. Guass's lemma. Jacobi's symbol.

Course Contents	**No. of Lecture Hours**
1. Fundamental theorems of divisibility	5
2. Relative primes, integers	3
3. Congruent numbers, residues	6
4. Fermat's theorem and Euler's generalization	6
5. Euler's function	2
6. Theory of congruences	5
7. Number of roots, residual polynomials	4
8. Indices	5
9. Legendre's symbol	3
10. Guass's lemma	3
11. Jacobi's symbol	3
Total	**45**