**BIS 3102 Human Computer Interaction (3CU)**

**Course Description:** This course covers: Introduction to the interdisciplinary area of Human Computer Interaction (HCI); the underlying principles of psychology, computer science and ergonomics that influence theory and practice of HCI design and usage; specific topics will include: models of human information processing, organizational structures and socio-technical approaches to information system design; design principles for dialogue management; issues of systems user-ability; hypertext; natural language processing; virtual reality and multimedia applications. The course aims to provide students with knowledge and skills in human factors with respect to interactive software, characteristics of design processes, principles and guidelines of interface design, virtual environments with respect to interfaces, corporate and business aspects of human computer interaction, interface aspects of response times and presentation, interaction devices.

**Indicative Content:** Conceptual systems models**;** Interface design and evaluation**;** Systems engineering and systems design factors**;** Assessments**;** Software tools**;** Virtual environments**;** Menus and dialogues**;** Command and natural languages**;** Interface devices**;** Response times**;** Complexity**;** Information attributes**;** Human factors and attributes**;** Tasks**;** Cognitive modelling**;** Function mapping**;** Hypermedia**;** Societal considerations and ethics and Internet/web considerations

**Reference Books:**

i. A. Dix, J. Finlay, G. Abowd and R. Beale, *Human Computer Interaction*, 2nd edition, Prentice Hall,

1997.

ii. A. Sears and J. A. Jacko, *the Human – Computer Interaction Handbook*, 2008.

iii. H. Sharp, Y. Rodgers, J. Preece and J. Wiley & Sons, *Interaction Design: beyond Human*

*Computer Interaction*, 2nd edition, 2007.