



One Day Seminar
On
**Teaching Computer Based Compulsory Courses
Through Spoken Tutorials**
in
Choice Based Credit Based Undergraduate Curriculum
of
Himachal Pradesh University, Summer Hill, Shimla

*(A Joint Initiative of Spoken Tutorial Project of IIT Bombay
&
Himachal Pradesh University Shimla)*

- As part of the choice based credit based system being introduced in Himachal Pradesh University keeping in mind the latest trend of providing life skills, to the students studying for undergraduate degrees (BA and BSC) in affiliated colleges, innovative courses of three credit (two credit theory and one credit practical) compulsory courses in IT skills have been introduced.
- Eight such course choices to develop computer skills among students across courses have been designed in collaboration with Spoken Tutorial Project of IIT Bombay under Talk to Teacher Program of National Mission of Education Through Information and Communication Technology (NMEICT) Ministry of Human Resource Development, Government of India to promote IT Literacy.
- Learning through these courses require no prerequisites, insulates students from paying hefty fees to get certification. It also offers possibility of dual certification (As part of Undergraduate degree from HPU and also another certificates from Spoken Tutorial Project, IIT Bombay) in the form of availability of Open Course Wares (OCW) via the www.spoken-tutorials.org link with freely downloadable video tutorials and learning material
- The courses provided in the recently launched curriculum are provided in the table below with a brief description of each course content with a comparison of FOSS alternative with proprietary softwares.

| S.No | Course Code | Content (No. of Credits) | Brief Description | Remarks |
|------|-------------|-----------------------------------|--|---|
| 1. | BSCIT**26 | Basic IT Based Skills (3 credits) | LINUX, LIBREOFFICE (writer, calc, impress) FIREFOX (for web browsing) , KTUX typing (for touch typing) | Linux is an open source operating system an alternative to windows, Libre office suite is an open source alternative to Microsoft office (word, |

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|--------|-------------|---|---|---|
| | | | | excel, powerpoint), Firefox is an open source alternative to internet explorer, touch typing |
| 2. | BSCIT**26 | Blender (3 credits) | Open source. Useful to create 3D Animation for Architecture & Animation students. Can be used by Civil Engineering students, also. | Equivalent to Maya and 3Dmax |
| 3. | BSCIT**26 | GIMP (GNU image manipulation Program) (3 credits) | Graphics art and design software application for the editing and creation of original images, icons, graphical elements of web pages and art for user interface elements. Useful for all graphic related work. Runs both on Windows and Linux Platforms | Equivalent to Photoshop |
| 4. | BSCIT**26 | Java (3 credits) | Free and open source, high level, simple as well as object-oriented programming language. Included in the curriculum of schools and colleges offering Computer Science and IT subjects. | Very popular cross platform object oriented language for developing application softwares in the form of Java Applets |
| 5. | BSCCSC** | Python (3 credits) | Numerical computational software for Science and Engineering Education – used in 3D animation and Gaming industry, Artificial Intelligence, YouTube, NASA, CERN, Yahoo and so on. Runs both on Microsoft Windows and Linux Platforms | Very popular programming language. |
| 6. | BSCCSC** | Scilab (3 credits) | Mathematical and scientific calculation software, open source substitute for MATLAB, | An open source alternative to Matlab for science and engineering students |

| S.No . | Course Code | Content (No. of Credits) | Brief Description | Remarks |
|--------|-------------|---------------------------|---|--|
| | | | very useful for all science and engineering students, in academics particularly. | |
| 7. | BSCCSC** | C/C++ (3 credits) | Powerful features, simple syntax, and portability make C/C++ a preferred language among programmers, for business and industrial applications. Widely used in the development of operating systems. | Mother of all languages |
| 8. | BSCCSC** | PHP and MYSQL (3 credits) | Package for developing interactive websites and establishing back-end connectivity with a database – Famous websites using PHP include Facebook, Google, and Wikipedia. | PHP is an open source complete tool to develop dynamic web sites. Mysql is the worlds most popular data base used by world's largest growing organisations |

The above listed courses have been designed in such a manner that from the day one student starts getting hands on experience and an exposure to FREE and OPEN SOURCE SOFTWARES (FOSS) which match the quality and reach of costly proprietary softwares.

Aim of the one day seminar is to sensitise the Principals, IT faculty and IT facilitators in the colleges affiliated to Himachal Pradesh University drawn from college departments running computer science/ science courses, who can act as main driving force for the successful conduct of computer skill based compulsory courses with self-paced learning possibilities for students coming via distance learning mode.

Seminar Schedule

Date: 30th July 2013

Venue: H.P. University Auditorium

| | | |
|-----|------------|--|
| 1. | 10.00 A.M. | Inauguration |
| 2. | 10.45 A.M | Tea Break |
| 3. | 11.00 A.M. | Overview of the CBCS, place of compulsory computer skill based courses in CBCS and need for innovation and guided learning through Video tutorials. (Prof. P.K Ahluwalia) |
| 4. | 11.30 Noon | Objective and Mission of Spoken Tutorials: Overview of the Spoken Tutorial Project, IIT Bombay under NMEICT (Sharda Sharma) |
| 5. | 12.30 P.M. | Implementation Issues: How to lead in institutional environment and certifications and follow up (Shyama Iyer) |
| 6. | 1.30 P.M. | Working Lunch |
| 7. | 2.15 P.M. | Case Study: Basic IT based Skills - I (Writer) (Shyama Iyer) |
| 8. | 3.00 P.M. | Tea Break |
| 9. | 3.15 P.M. | Case Study: Basic IT based Skills - II (Calc) (Shyama Iyer) |
| 10. | 4.00 P.M. | Case Study: Basic IT based Skills - III (Impress) (Sharda Sharma) |
| 11. | 4.45 P.M. | Valedictory Function |

How to Register:

Go on the following link on the web and register the details of the participants (Principal and one IT/CSC/Science Faculty from the college, two persons from each college)

https://docs.google.com/forms/d/1X1o_U6gQjQ_tcWwUkg-MOUtuf7h7pDAv3FsVGL67e8Y/viewform

Expected number of participants: 250

Local Organizing Committee :

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|------|-----------------------|---|--|
| i. | Prof. Amarjeet Singh | : | Chairperson, Dept. of Computer Science |
| ii. | Prof. Sudershana Rana | : | Chairperson, Dept. of Education |
| iii. | Sh. Mukesh Kumar | : | Incharge, Computer Centre, HPU |
| iv. | Er. Balbir Thakur | : | Associate Professor, UIIT |
| v. | Sh. Vishal Sood | : | Assistant Professor, Education, ICDEOL |
| vi. | Dr. Kuldeep Katoch | : | Assistant Professor, Education, ICDEOL |
| vii. | Dr. Vikas Sharma | : | Web Administrator, (ICDEOL) |