UG ORIENTATION 2022

Program Orientation and Academic Guidelines
October 10, 2022
Overview of UG Programs

• Residential, regular
• Minimum duration of **four years**
• Credit based course work (L-T-P—C)
• Programs offered
  – **B. Tech.** in Information and Communication Technology (referred to as BTech ICT)
  – **B. Tech. Honours** in Information and Communication Technology with Minor in Computational Science (referred to as BTech ICT+CS)
  – **B. Tech.** in Mathematics and Computing (referred to as BTech MnC)
Undergraduate Committee (UGC)

- Dr. Abhishek Jindal
- Dr. Aditya Tatu
- Dr. Minal Bhise
- Dr. Mukesh Tiwari
- Dr. Shefali Jha
- Dr. Srimanta Mandal
Role of UGC

To counsel and guide UG students in academic and related matters like:
- course registration
- academic requirements
- final year project
- internships
- exams related
- other matters related to academic performance
SoS

- Specific Course related queries/issues: Course Instructor
daiictpdc/academic
daiictpdc/announce
- Program Coordinator
  - Srimanta Mandal, Faculty Block-4 – Coordinator, B.Tech ICT
  - Mukesh Tiwari, Faculty Block-1 – Coordinator, B.Tech MnC
  - Abhishek Jindal, Faculty Block-4 – Coordinator, ICT Minors
- UG Convenor
  - Aditya Tatu, Faculty Block-1, ug_convenor@daiict.ac.in
- Associate Dean (Academic Program)
  - Bhaskar Choudhury, Faculty Block-2, assodean_ap@daiict.ac.in
- Dean (Academic Program)
  - Maniklal Das, Faculty Block-2, dean_ap@daiict.ac.in
Communication

● All information will be communicated to you via email/intranet, incl.
  - Lecture/Lab TimeTable
  - Exam TimeTable
  - Registration information

● Course Instructors may use Moodle/Google classroom/Intranet (daiictpdc/Lecture) to provide course material, and communicate.
Semesters at DA-IICT

• **Regular Semesters** (approximately 17 weeks)
  
  Lecture/Lab/Tutorial : ~ 14 weeks  
  Semester Break : ~ 1 week  
  In-Semester Exam. : ~ 1 week (2 in-semester examinations)  
  Final Examination : ~ 1 week

  – **Autumn Semester** (extending from July to December)
    • Sem-I, Sem-III, Sem-V, Sem-VII

  – **Winter Semester** (extending from January to May)
    • Sem-II, Sem-IV, Sem-VI, Sem-VIII

• **Summer Semester** (approximately 8 weeks)
  
  – Not a regular semester but a special semester (between May and July)
Your First Semester (Autumn 2022-23)

- **Classes begin:** Wednesday, October 12, 2022
- **Diwali break:** October 23 - October 29, 2022
- **Mid-Semester Examination:** December 19 - December 24, 2022
- **Mid-Semester Break:** December 25, 2022 - January 1, 2023
- **End-Semester Examination:** February 20 - February 25, 2023
- **Announcement of Results:** March 6, 2023

- **Commencement of Winter 2022-23 Semester:** March 13, 2023
Structure of the Curriculum

CORE COURSES

CORE COURSES, RURAL INTERNSHIP

CORE COURSES, ELECTIVES

BTP, ELECTIVES
Types of UG Courses

- **Program Core**: Foundational and mandatory for all in a program.
- **Honours Core**: Foundational and mandatory for earning BTech Honours.
- **Program Elective**
  - **ICT Elective**: Technical courses with components in Computer Systems, Communication Technology, and Electronics.
  - **MnC Elective**: Technical courses with components in Mathematics and Computer Science.
- **Science Elective**: Courses in the areas of Bioinformatics, Engineering Sciences, Mathematics, Physics.
- **HASS Elective**
Course Credits

• Each course has a specific number of lectures/labs/tutorials per week.
• Credits of a course (incl. Internships/projects): L-T-P-C
  – L: Number of lecture hours per week
  – T: Number of Tutorial hours per week
  – P: Number of Lab hours per week
  – C: Total Credits of a course: C = L + T + 0.5*P
• Examples:
  – SC107 - Calculus: 3-1-0-4
  – CT204 - Signals and Systems: 3-0-2-4
Performance Evaluation

• Continuous evaluation through various assessment modes like
  – Home assignments
  – Tutorial assignments
  – Laboratory work
  – Group assignments
  – Quizzes
  – Tests (open or closed book/notes)
  – Viva-voce
  – Course projects
  – Attendance in lectures/labs/tutorials
  – In-semester examinations
  – End-semster examination
  – ...

• Course Instructor decides the mode of evaluation, and will announce the same in the first week of the course.
# Grades in a Course

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Grade Points</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>AB</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>BB</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>BC</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>CC</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>CD</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>DD</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>Fail</td>
</tr>
<tr>
<td>I</td>
<td>-</td>
<td>Incomplete</td>
</tr>
<tr>
<td>P (Only for Pass/Fail Course)</td>
<td>-</td>
<td>Pass</td>
</tr>
</tbody>
</table>
Grades and their Impact

• I grade
  – awarded temporarily if requirements of the course are incomplete due to genuine reasons.
  – should be converted to a regular letter grade before the last date for grade modification; will otherwise be converted to ‘F’ grade automatically.

• F grade
  – if obtained in a core course then the course must be repeated.
  – If obtained in an elective, must be repeated or replaced by another elective from the same category.

• **Repeat** implies attend lectures/labs/tutorials and attempt all evaluation components.
Grades and their Impact (contd.)

• DE/DD grade
  – the course may be repeated or substituted during a regular semester in order to improve the CPI when it is below the prescribed minimum for graduation (5.0).

• On transcript
  – The grade obtained in the first attempt will be shown in the Transcript, but will not be considered for calculating the CPI.
Performance Indices

- Semester Performance Index (SPI) – indicates the performance in a semester.
- Cumulative Performance Index (CPI) – indicates the overall performance from the time of entering the Institute.
- Example 1:

<table>
<thead>
<tr>
<th>Course</th>
<th>Structure</th>
<th>Grades</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L T P C</td>
<td>AA 9  AB 8  BB 7  BC 6  BB 5  DD 4  DE 3  F 0</td>
<td></td>
</tr>
<tr>
<td>Course - A</td>
<td>3 0 3 4.5</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Course - B</td>
<td>3 0 0 3</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Course - C</td>
<td>3 0 3 4.5</td>
<td>31.5</td>
<td></td>
</tr>
<tr>
<td>Course - D</td>
<td>3 1 0 4</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Course - E</td>
<td>2 0 0 2</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SPI = 107.5/16 = 6.72
Performance Indices

- Semester Performance Index (SPI) – indicates the performance in a semester.
- Cumulative Performance Index (CPI) – indicates the overall performance from the time of entering the Institute.

**Example 2:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Structure</th>
<th>Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>Course - A</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course - B</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course - C</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Course - D</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Course - E</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

**Total Grade Points**
- Course - A: 31.5
- Course - B: 15
- Course - C: 31.5
- Course - D: 16
- Course - E: P
- **Total: 94.0**

**Total Credits: 16**

**SPI = 94/16 = 5.87**
### Calculate SPI

<table>
<thead>
<tr>
<th>Course</th>
<th>Structure</th>
<th>Grades</th>
<th>Credits</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L</td>
<td>T</td>
<td>P</td>
<td>C</td>
</tr>
<tr>
<td>Course - A</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Course - B</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Course - C</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Course - D</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Course - E</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
</tbody>
</table>

\[
SPI = \frac{\text{Credit Points}}{\text{Credits}} = ??
\]
Performance Indices and their Impact

• Academic Probation
  – if SPI at the end of Sem-I is less than 4.5 then the student will be placed on academic probation for his/her Sem-II.
  – from Sem-III onwards, if CPI at the end of the previous semester is less than 5.0 or SPI in the previous semester is less than 4.5 then the student will be placed on academic probation for the semester.
  – placing on academic probation will be intimated to the parents/guardian.
Performance Indices and their Impact (contd.)

- Discontinuation from the Institute on account of poor academic performance
  - A student, who is placed on academic probation, may be allowed to register for a maximum of THREE available backlog courses offered in the summer semester, following his/her second or fourth semester.
  - In case the student achieves a minimum CPI of 4.0 at the end of the relevant summer semester, he/she should be allowed to continue the program; otherwise, the student will be asked to repeat a year OR discontinue from the program.
  - A student whose CPI is less than 4.0 at the end of second or fourth semester shall be asked to repeat a year as appropriate with course improvement options in order to improve his/her academic performance.
Branch Transfer

• A student admitted to BTech CS must obtain a minimum CPI of 6.5 at the end of Semester-III to continue in the program
  – failing which he/she will be moved to the BTech ICT program subject to meeting the academic requirements stipulated therein.

• A student admitted to BTech ICT program with a CPI of 7.5 or more at the end of Semester-III may apply to Dean(AP) for transfer to BTech ICT+CS
  – which will be granted subject to availability of seats.
B.Tech(ICT) with Honors, and Honors with Minors

• At the end of third semester, B.Tech(ICT) students will be given an opportunity to apply for
  – B.Tech(ICT) with Honors
  – B.Tech(ICT) with Honors, and Minor in
    ■ Robotics and Autonomous Systems.
• Subject to:
  – CPI >= 7.5
  – Availability of seats
• Additional minimum designated 5 courses/15 credits, starting Semester 4.
Important Pointers

Important rule books are available in "\daiictpdc\academic folder"

1. Academic requirements (will be available soon)
2. Attendance and leave rule
3. Examination rules for students
4. Disciplinary guidelines for students
5. Academic calendar for Autumn 2022-23 for UG2022
6. Holidays 2022

Announcements such as Lecture/Lab/Tutorial time-table, Examination time-table are made available in the Academic folder.
Attendance Policy

Lecture, Lab and Tutorial

- 100% attendance is expected for lectures, labs and tutorials.

- Minimum attendance is 80%. Students failing short of 80% attendance are liable to get F grade and would not be allowed to write final (end semester) examination.
Leave rule

- There is **NO Leave** as such …

- Absence due to illness of self, accident of self or death in the family will be counted within the 20% buffer that you have.

- A student who is absent, part or whole of the **in-semester/end-semester exam** due to above mentioned causes could apply to UG Convenor for approval.

- If it is illness or accident, get a medical certificate duly approved by the medical officer of DA-IICT (or other Doctor) and email a scanned copy to **dean-ap_office@daiict.ac.in**.

- If it is death in the family, a letter from your parents and a copy of the death certificate must be attached with your application. Email to **dean-ap_office@daiict.ac.in**.
If you are absent for an in-sem exam

- In case your leave is not approved you will get 0 (zero) in the exam.

- Dean-AP’s office will notify about all the approved leave(s) to the respective instructor(s).

- Then it would be respective instructor’s decision to adopt a policy to award you marks for your absence.
If you are absent for the final (end-sem) exam:

- In case your leave is not approved you will get 0 (zero) in the exam.

- Dean-AP’s office will notify about the approval of your leave to the respective instructor(s).

- The instructor will award you **I** grade and will arrange for a re-examination.

- The instructor will award you final grade with the approval of Dean-AP after the re-exam. If I grade is not converted to an appropriate grade within the stipulated time, it would be automatically converted into **F** grade.
Plagiarism

Plagiarism is committed when you present someone else's ideas-published or unpublished - as if they were your own.

People's ideas may be contained in

- written text (like articles, books, dissertations, theses, newspapers, magazines, notes, course material, co-students' projects, e-mail messages, data, computer code, everything on the Internet, etc.),
- visual text (like books, fine art, graphics, photographs, etc.),
- multimedia products (like websites, video productions, films, CDs, design projects, etc.),
- music (compositions, lyrics, CDs, music or sound bites on the Internet, etc.) and
- spoken
Plagiarism is a serious offence.

If you are found to have committed plagiarism in any of your submitted work (assignment, presentation, project report, thesis, etc.), serious action will be initiated against you.

The minimum penalty would be 0 (zero) marks for the component under review, which may lead to an “F’ grade for the entire course.

Copying/cheating during a test/quiz/exam will also attract the above penalty.
Internships and Projects

1. **ICT, ICT+CS:** Exploratory Projects 1 and 2 (Semester 2 and 3)

2. **All UG students:** Rural Internship: 3-4 weeks, Between Semester 3 and 4

3. **All UG students:** Summer Research Internship/Summer Industrial Internship, Between Semester 6 and 7

4. **All UG students:** B.Tech Project/Industrial Internship, Semester 8.
Course Structure

**B.Tech(ICT/ICT+CS)**

- **Semester 1 (Aut 2022)**
  - Introduction to ICT (1-0-2-2)
  - Language and Literature (3-0-0-3)
  - Calculus (3-1-0-4)
  - Introduction to Programming (3-0-0-3)
  - Programming Lab (0-0-2-1)
  - Basic Electronic Circuits (3-0-2-4)
  - Co-curricular Activities (0-0-2-1)

**B.Tech(MnC)**

- **Semester 1 (Aut 2022)**
  - Mathematical, Algorithmic, and Computational Thinking (3-1-0-4)
  - Computer Organization and Programming (3-0--0-3)
  - Computer Organization and Programming Lab (0-0-4-2)
  - Discrete Mathematics (3-1-0-4)
  - Digital Logic Design (1-0-2-2)
  - Language and Literature (3-0-0-3)
Course Structure

B.Tech(ICT/ICT+CS)

• Semester 2 (Win 2022-23)
  - Approaches to Indian Society (3-0-0-3)
  - Discrete Mathematics (3-1-0-3)
  - Digital Logic and Computer Organization (3-0-2-4)
  - Data Structures (3-0-0-3)
  - Data Structures Lab using OOP (1-0-2-2)
  - Electromagnetic Theory (3-1-0-4)
  - Exploration Project (0-1-0-1)
  - Co-curricular Activities 2 (0-0-2-1)

B.Tech(MnC)

• Semester 2 (Win 2022-23)
  – Approaches to Indian Society (3-0-0-3)
  – Functions of Single Variable (3-1-0-4)
  – Object Oriented Programming (2-0-2-3)
  – Data Structures and Algorithms (3-0-2-4)
  – Linear Algebra (3-1-0-4)
# Graduation Requirements

**BTech(ICT)**

- Passed all the core and elective courses
- Passed all the internships
- Passing grade in BTP/ITP
- At least 129 course credits,
  - 90 core course credits
  - 39 credits through at least 3 ICTE, at least 4 TE, at least 2 SE, at least 1 HASS, and at least 2 OE.
  - At least 645 grade points through courses.
- CPI of 5 or more.
- Registered for at least eight regular semesters
- Should have no case of indiscipline pending
### Graduation Requirements

<table>
<thead>
<tr>
<th>BTech(MnC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Passed all the core and elective courses</td>
</tr>
<tr>
<td>• Passed all the internships</td>
</tr>
<tr>
<td>• Passing grade in BTP/ITP</td>
</tr>
<tr>
<td>• At least 136 course credits,</td>
</tr>
<tr>
<td>– 100 core course credits</td>
</tr>
<tr>
<td>– 36 credits through at least 10 MnCE, at least 2 OE.</td>
</tr>
<tr>
<td>– At least 680 grade points through courses.</td>
</tr>
<tr>
<td>• CPI of 5 or more.</td>
</tr>
<tr>
<td>• Registered for at least eight regular semesters</td>
</tr>
<tr>
<td>• Should have no case of indiscipline pending</td>
</tr>
</tbody>
</table>
Graduation Requirements

**BTech (Honours) (ICT + CS)**

- Passed all the core and elective courses
- Passed all the internships
- Passing grade in BTP
- At least 147 course credits
  - 90 ICT core course credits.
  - 18 CS Core course credits.
  - 39 credits through at least 3 ICTE, at least 4 TE, at least 2 SE, at least 1 HASS, at least OE. Each category except HASS and OE should include at least 1 course with CS feature.
- At least 735 grade points
- CPI of 6.5 or more.
- Registered for at least eight regular semesters
- Should have no case of indiscipline pending
Graduation Requirements

BTech ICT (Honours)/(Honors with Minor)

• Passed all the core and elective courses
• Passed all the internships
• Passing grade in BTP
• At least 144 course credits
  – 90 core course credits
  – At least 15 Honors/Minor designated course credits (minimum 5 courses)
  – 39 credits through at least 3 ICTE, at least 4 TE, at least 2 SE, at least 1 HASS, at least OE. Each category except HASS and OE should include at least 1 course with CS feature.
• At least 720 grade points
• CPI of 6.5 or more.
• Registered for at least eight regular semesters
• Should have no case of indiscipline pending
QUESTIONS?

BEST WISHES