

# Jordan University of Science and Technology Faculty of Computer & Information Technology Software Engineering Department

HSS103SE Introduction To Information Technology - JNQF Level: 6

Second Semester 2023-2024

#### **Course Catalog**

3 Credit Hours. This course introduces the latest major concepts of Information Technology (IT) encompassing the Internet of Things and smart systems, cyber security, artificial intelligence, big data, blockchain, and social media. It also presents a perspective foundation on the range of underlying theoretical and practical principles regarding information technology and how they would impact the lifestyle of individuals.

### Teaching Method: Blended

|                            | Text Book   |  |  |  |  |  |  |  |  |
|----------------------------|---|--|--|--|--|--|--|--|--|
| Title Technology in Action |   |  |  |  |  |  |  |  |  |
| Author(s)                  | Author(s)  Alan Evans ? Kendall Martin ? Mary Anne Poatsy |  |  |  |  |  |  |  |  |
| Edition 13th Edition       |   |  |  |  |  |  |  |  |  |
| Short Name                 | Ref #1  |  |  |  |  |  |  |  |  |
| Other Information          |   |  |  |  |  |  |  |  |  |

### Course References

| Short name | Book name                     | Author(s)                          | Edition      | Other Information |
|------------|-------------------------------|------------------------------------|--------------|-------------------|
| Ref#2      | Computer Science: AN OVERVIEW | J. Glenn Brookshear, Dennis Brylow | 13th Edition |                   |

|                 | Instructor   |  |  |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|--|--|--|
| Name            | Mrs. Suzan Bdour   |  |  |  |  |  |  |  |  |
| Office Location | A2-L3  |  |  |  |  |  |  |  |  |
| Office Hours    | Sun: 11:30 - 12:30<br>Mon: 09:30 - 11:30<br>Tue: 11:30 - 12:30<br>Wed: 09:30 - 11:30 |  |  |  |  |  |  |  |  |
| Email           | bsuzan@just.edu.jo   |  |  |  |  |  |  |  |  |

| Instructor      |  |  |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|--|--|
| Name            | Dr. Hala Hamadeh   |  |  |  |  |  |  |  |
| Office Location | CH1 L2   |  |  |  |  |  |  |  |
| Office Hours    | Sun: 11:30 - 12:45<br>Mon: 08:30 - 08:45<br>Tue: 11:30 - 12:45<br>Thu: 08:30 - 10:30<br>Thu: 11:30 - 12:45 |  |  |  |  |  |  |  |
| Email           | hmhamadeh@just.edu.jo  |  |  |  |  |  |  |  |

## Class Schedule & Room

Section 1:

Lecture Time: Sun, Tue : 08:30 - 09:30

Room: A2122

Section 2:

Lecture Time: Sun, Tue: 09:30 - 10:30

Room: NG54

Section 3:

Lecture Time: Sun, Tue: 08:30 - 09:30

Room: PH2101

| Tentative List of Topics Covered |   |                       |  |  |  |  |  |  |  |
|----------------------------------|---|-----------------------|--|--|--|--|--|--|--|
| Weeks                            | Weeks Topic   |                       |  |  |  |  |  |  |  |
| Weeks 1, 2                       | Sub-module 1.1: IT Impact and AI                                | Chapter 1 From Ref #1 |  |  |  |  |  |  |  |
| Week 3                           | Week 3 Sub-module 2.1 - From System Software to System Hardware |                       |  |  |  |  |  |  |  |
| Week 4                           | Sub-module 2.2 - Computer Organization                          | Chapter 2 From Ref #1 |  |  |  |  |  |  |  |

| Week 5           | Sub-module 3.1: Numbering Systems    | From Ref #2           |
|------------------|--------------------------------------|-----------------------|
| Weeks 6, 7       | Sub-module 3.2: Data Storage         | Chapter 1 From Ref #2 |
| Week 8           | Sub-module 4.1: Data Sciences        |                       |
| Week 9           | Sub-module 5.1: Programming Concepts |                       |
| Weeks 10, 11, 12 | Sub-module 6.1: Software Engineering |                       |
| Weeks 13, 14     | Sub-module 7.1: Networking           | Chapter 7 From Ref #1 |
| Week 15          | Sub-module 8.1: Security             | Chapter 9 From Ref #1 |
| Week 16          | Final Exam                           |                       |

| Mapping of Course Outcomes to Program Outcomes and NQF Outcomes   | Course Outcome Weight (Out of 100%) | Assessment method |
|---|-------------------------------------|-------------------|
| Explain the role of information technology and its foundation basics. [1C8] [1L6C5]                                 | 10%                                 |                   |
| Understand the impacts of information technologies on everyday life. [1C7] [1L6C3]                                  | 10%                                 |                   |
| Gain knowledge with the technologies behind artificial intelligence and machine learnings. [1C13] [1L6S1]           | 10%                                 |                   |
| Get familiar with latest topics about cyber security technology. [1C11] [1L6S2]                                     | 10%                                 |                   |
| Get exposure to the essentials and operating principles of the Internet of Things and smart systems. [1C11] [1L6C3] | 10%                                 |                   |
| Understand the basics of blockchain technology. [1C11] [1L6S2]  | 10%                                 |                   |
| Understand core concepts and applications behind big data problems. [1C8] [1L6S2]                                   | 10%                                 |                   |
| Get aware of how public relations and marketing have changed due to the rise of social media. [1C18] [1L6C5]        | 10%                                 |                   |
| Learn about how using information technology would change the world. [1C18] [1L6S3]                                 | 10%                                 |                   |
| Acquire insight into the future trends of technologies. [1C11] [1L6S2]  | 10%                                 |                   |

|      |      |      |      |      |      |      |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      | Relatio |
|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|---------|
| SM1p | SM2p | SM3p | EA1p | EA2p | EA3p | EA4p | D1p | D2p | D3p | D4p | D5p | D6p | ET1p | ET2p | ЕТ3р | ET4p | ET5p | ЕТ6р | EP1p | EP2p | EP3p | EP4p | EP5p | EP6p    |
|      |      |      |      |      |      |      |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |         |

| Relationship to NQF Outcomes (Out of 100%) |      |      |      |      |  |  |  |  |  |  |
|--|------|------|------|------|--|--|--|--|--|--|
| L6S1                                       | L6S2 | L6S3 | L6C3 | L6C5 |  |  |  |  |  |  |
| 10   | 40   | 10   | 20   | 20   |  |  |  |  |  |  |

| Evaluation      |        |  |  |  |  |  |  |  |
|-----------------|--------|--|--|--|--|--|--|--|
| Assessment Tool | Weight |  |  |  |  |  |  |  |
| First           | 25%    |  |  |  |  |  |  |  |
| Second          | 25%    |  |  |  |  |  |  |  |
| Quizzes         | 10%    |  |  |  |  |  |  |  |
| Final           | 40%    |  |  |  |  |  |  |  |

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