

Course Description Form

1. Course Name:	Computer 2
2. Course Code:	COS 112
3. Semester / Year:	Semester
4. Description Preparation Date:	25-11-2024
5. Available Attendance Forms:	Attendance
6. Number of Credit Hours (Total) / Number of Units (Total)	2hours practical \ 1 unit
7. Course administrator's name (mention all, if more than one name)	Name: MSc. Zaid Sami Email: zaid.sami2020@gmail.com
8. Course Objectives	
Course Objectives	<p>Cognitive objectives:</p> <ul style="list-style-type: none">•Introduce students to the basics of computer science and its use in healthcare.•Identify basic computer applications in nursing, such as electronic patient records.•Learn to use statistical software (such as SPSS, Excel, and R) to process nursing medical data.•Understand how software is used to analyze medical research results and patient cases.•Understand how statistical data can be used to support nursing decisions and improve the quality of care.•Study the impact of using statistical analysis on prevention and treatment in patient cases. <p>Skill objectives</p> <ul style="list-style-type: none">•Train students to enter medical data (such as test results or patient notes) and analyze them using statistical tools.•Apply statistical analysis to measure the effectiveness of treatments or health



programs using statistical software.

- Learn how to interpret statistical data to guide healthcare and evaluate progress.

- Use statistical results to determine nursing priorities, such as determining disease risk or assessing patient response to treatment.

- Apply statistical analysis tools to realistic nursing scenarios to analyze patient data.

9. Teaching and Learning Strategies

Strategy

- Lectures: To present basic information and theoretical concepts.

- Group discussions: To promote critical thinking and active participation among students.

- Group work: To develop cooperation skills and practical application of concepts.

Assessment methods:

- Written tests: To measure theoretical understanding of concepts and terms.

- Practical assessment (applied skills): Through case studies or implementation of practical activities.

- Participation in group discussions: To assess the level of interaction and critical understanding.

- Brainstorming

- Reports

- Quis



10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction to Computer Science and Data Analysis	Introduction to Computer Science and its Applications in Nursing	In-person lectures using visual aids	Attendance, da quizzes, class interaction
2	2	Understanding the Basics of Health Information Systems	Health Information Systems and Electronic Patient Records	Theoretical lectures and practical applications	Short quizzes, class interaction
3	2	Applying Basic Computer Skills	Basics of Using Office Programs (Word, Excel)	Practical workshops	Mini-projects, assignments
4	2	Learning to Input and Analyze Medical Data	Data Entry and Processing using Excel	Practical training	Practical assessment, projects
5	2	Analyzing Basic Statistical Data	Introduction to SPSS and Medical Data Entry	Workshops and practical training	Performance of practical applications
6	2	Applying Statistical Analysis in Nursing	Using SPSS to Analyze Patient Data	Practical exercises and case studies	Practical assessment, individual reports
7	2	Understanding the Use of R in Statistical Analysis	Introduction to R and its Applications in Nursing	Training workshops	Mini-projects, short quizzes



8	2	Evaluating Healthcare Quality using Statistical Analysis	Analyzing Healthcare Quality Indicators	Interactive lectures, practical training	Practical assessment, group reports
9	2	Interpreting Data to Support Nursing Decisions	How to Analyze and Interpret Research Results	Group discussions, practical applications	Analytical reports, practical assessment
10	2	Using Statistical Analysis in Prevention and Treatment	Evidence-Based Nursing Applications	Case studies, discussion sessions	Research reports, class interaction
11	2	Analyzing Clinical Effectiveness of Treatments	Measuring the Impact of Health Treatments using Statistical Software	Workshops, practical training	Practical projects, Presentations
12	2	Using Data to Improve Nursing Plans	Developing Nursing Strategies Based on Statistical Analysis	Interactive lectures, practical applications	Practical assessment, Presentations
13	2	Writing Medical and Statistical Reports	Preparing Medical Data Analysis Reports	Practical training on report writing	Report evaluation, Group Feedback



15	2	Using Statistical Analysis to Support Health Policies	Analyzing Data to Support Health Decisions	Interactive lectures, analyzing real data	Research projects, Discussions
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11. Course Evaluation

"The grading is distributed out of 100 based on the tasks assigned to the student, such as daily preparation, daily exams, oral assessments, monthly assessments, written assignments, reports, etc."

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	<p>Computer Science: An Overview" by J. Glenn Brookshear and Dennis Brylow.</p> <p>2-Computer Systems: A Programmer's Perspective" by Randal E. Bryant and David R. O'Hallaron</p> <p>3-Discovering Statistics Using IBM SPSS Statistics" by Andy Field, Jeremy Miles, and Zoë Field</p> <p>4-SPSS Survival Manual" by Julie Pallant</p>
Recommended books and references (scientific journals, reports...)	Basics of MATLAB and beyond. By (Andrew Knight) -2
Electronic References, Websites	Part 1 Data Processing for Scientists and Engineers using MATLAB By (Professor Dr. Abdul Mutalib Ibrahim Ahmad 2006)
Curriculum Development Plan	<p>Create a list of the content that must be taught to students</p> <p>Keep up with the course developments by following up on the Internet to find advanced courses in the field of the scientific (academic) course</p>

