

ATTACHMENT 2 (g)

Course Report

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

**Course REPORT
(CR)**

**Compiler Design
(CSI 413)**

Sami Smadi

A separate Course Report (CR) should be submitted for every course and for each section or campus location where the course is taught, even if the course is taught by the same person. Each CR is to be completed by the course instructor at the end of each course and given to the program coordinator

A combined, comprehensive CR should be prepared by the course coordinator and the separate location reports are to be attached.



Course Report

For guidance on the completion of this template refer to the NCAAA handbooks or the NCAAA Accreditation System help buttons.

| | | | |
|---------------------|---|-----------------------|-----------|
| Institution | Almajmaah university | Date of Course Report | 29/7/1435 |
| College/ Department | College of Science / Department of Computer science and Information | | |

A. Course Identification and General Information

| | | | | | | |
|---|------------------------------------|---------------------------------|--------------------------------|-----------|--------|-------|
| Course title | Compiler Design | Code # | CIS 413-Z | Section # | 259 | |
| 2. Name of course instructor | Sami Smadi | Location | College of Science in Azulfi | | | |
| 3. Year and semester to which this report applies. | 2 nd Semester 1434/1435 | | | | | |
| 4. Number of students starting the course? | <input type="text" value="5"/> | Students completing the course? | <input type="text" value="5"/> | | | |
| 5. Course components (actual total contact hours and credits per semester): | | | | | | |
| | Lecture | Tutorial | Laboratory | Practical | Other: | Total |
| Contact Hours | 45 | | 30 | | | 75 |
| Credit | 45 | | 15 | | | 60 |

B. - Course Delivery

| | | | |
|---|-----------------------|----------------------|--|
| 1. Coverage of Planned Program | | | |
| Topics Covered | Planned Contact Hours | Actual Contact Hours | Reason for Variations if there is a difference of more than 25% of the hours planned |
| 1. Introduction to Compilers: The role of language translation in the programming process; Comparison of interpreters and compilers, language translation phases, machine-dependent and machine-independent aspects of translation, language translation as a software engineering activity | 3 | 6 | The student need more background information in this field |
| 2. Lexical Analysis: Application of regular expressions in lexical | 6 | 6 | |



| | | | |
|--|---|---|--|
| scanners, | | | |
| 3. Lexical Analysis: hand coded scanner vs. automatically generated scanners | 6 | 6 | |
| 4. Lexical Analysis: formal definition of tokens, implementation of finite state automata. | 3 | 3 | |
| 5. Syntax Analysis: Revision of formal definition of grammars, BNF and EBNF; bottom-up vs. top-down parsing, | 6 | 8 | |
| 6. Syntax Analysis: tabular vs. recursive-descent parsers, error handling, | 6 | 5 | |
| 7. Parsers Implementation: automatic generation of tabular parsers, symbol table management, the use of tools in support of the translation process | 3 | 3 | |
| 8. Semantic Analysis: Data type as set of values with set of operations, data types, type-checking models, semantic models of user-defined types, parametric polymorphism, subtype polymorphism, type-checking algorithms. | 3 | 2 | |
| 9. Intermediate Representation, code generation: Intermediate and object code, intermediate representations, implementation of code generators | 3 | 4 | |
| 10. Code generation: code generation by tree walking; context sensitive translation, register use. | 3 | 3 | |
| | | | |

2. Consequences of Non Coverage of Topics

For any topics where the topic was not taught or practically delivered, comment on how significant you believe the lack of coverage is for the course learning outcomes or for later courses in the program. Suggest possible compensating action.

| Topics (if any) not Fully Covered | Effected Learning Outcomes | Possible Compensating Action |
|-----------------------------------|----------------------------|------------------------------|
|-----------------------------------|----------------------------|------------------------------|



| | | |
|-----------|---|---|
| No topics | - | - |
|-----------|---|---|

3. Course learning outcome assessment.

| | List course learning outcomes | List methods of assessment | Summary analysis of assessment results |
|---|--|--|--|
| 1 | Understand the main abstract concepts related to the layered communication architecture | Written Exam Homework assignments Lab assignments Class Activities Quizzes | The average of results 74.71 (C+) for 21 students. |
| 2 | Students will explain the core concepts of the computer network as well as network protocols as OSI and TCP/IP | Written Exam Homework assignments Lab assignments Class Activities Quizzes Observations | |
| 3 | Explain the technology infrastructure and network requirements for local LAN. | | |
| 4 | Understand the legal, ethical, and managerial requirements of internet use | | |
| 5 | Analyze and implement some of the most advanced routing and congestion control algorithms. | | |
| 6 | Evaluate the performances of computer networks (through mathematical modeling and simulation) | Written Exam Homework assignments Lab assignments Class Activities Quizzes | |



Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above.

- Individual presentations
- Brainstorming
- Small group discussion
- Whole group

4. Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification. (Refer to planned teaching strategies in Course Specification and description of Domains of Learning Outcomes in the National Qualifications Framework)

| List Teaching Methods set out in Course Specification | Were these Effective? | | Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties. |
|---|-----------------------|-----|---|
| | No | Yes | |
| <ul style="list-style-type: none"> • Lectures • Homework • conversation | | √ | |
| <ul style="list-style-type: none"> • Conversation between student. • Indirected questions. • Work group for some cases. | | √ | |
| <ul style="list-style-type: none"> • Making groups and distributed tasks. • Presentation skills. • Skill constructive Monetary and dialogue and discussion with others • The ability to clearly express an opinion, and accept the opinions of others | | √ | |
| <ul style="list-style-type: none"> • E-mail • Web sit | | √ | |

Note: In order to analyze the assessment of student achievement for each course learning outcome, student performance results can be measured and assessed using a KPI, a rubric, or some grading system that aligns student work, exam scores, or other demonstration of successful learning.



C. Results

1. Distribution of Grades

| Letter Grade | Number of Students | Student Percentage | Explanation of Distribution of Grades |
|--------------|--------------------|--------------------|---------------------------------------|
| A+ | 0 | 0 | |
| A | 0 | 0 | |
| B+ | 0 | 0 | |
| B | 0 | 0 | |
| C+ | 0 | 0 | |
| C | 1 | 20 | |
| D+ | 1 | 20 | |
| D | 3 | 60 | |
| F | 0 | 0 | |
| Denied Entry | 0 | 0 | |
| In Progress | 5 | 100% | |
| Incomplete | 0 | 0 | |
| Pass | 5 | 100% | |
| Fail | 0 | 0 | |
| Withdrawn | 0 | 0 | |

2. Analyze special factors (if any) affecting the results

3. Variations from planned student assessment processes (if any) (see Course Specifications).

a. Variations (if any) from planned assessment schedule (see Course Specification)

| Variation | Reason |
|-----------|--------|
| | |
| | |
| | |



| b. Variations (if any) from planned assessment processes in Domains of Learning (see Course Specification) | |
|--|--------|
| Variation | Reason |
| | |
| | |
| | |

| 4. Student Grade Achievement Verification (eg. cross-check of grade validity by independent evaluator). | |
|---|-------------|
| Method(s) of Verification | Conclusion |
| Interview students, including answers and model answer sheet and learning resources for decision | Good result |
| | |

D. Resources and Facilities

| | |
|---|---|
| 1. Difficulties in access to resources or facilities (if any) | 2. Consequences of any difficulties experienced for student learning in the course. |
|---|---|

E. Administrative Issues

| | |
|--|---|
| 1 Organizational or administrative difficulties encountered (if any) | 2. Consequences of any difficulties experienced for student learning in the course. |
|--|---|

F Course Evaluation

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|--|
| 1 Student evaluation of the course (Attach survey results report) |
| a. List the most important recommendations for improvement and strengths |



| |
|---|
| b. Response of instructor or course team to this evaluation |
| 2. Other Evaluation (e.g. by head of department, peer observations, accreditation review, other stakeholders) |
| a. List the most important recommendations for improvement and strengths |
| b. Response of instructor or course team to this evaluation |

G. Planning for Improvement

| 1. Progress on actions proposed for improving the course in previous course reports (if any). | | | |
|---|---------------|---------|----------|
| Actions recommended from the most recent course report(s) | Actions Taken | Results | Analysis |
| a. | | | |
| b. | | | |
| c. | | | |
| d. | | | |



2. List what actions have been taken to improve the course (based on previous CR, surveys, independent opinion, or course evaluation).

3. Action Plan for Improvement for Next Semester/Year

| Actions Recommended | Intended Action Points and Process | Start Date | Completion Date | Person Responsible |
|---------------------|------------------------------------|------------|-----------------|--------------------|
| a. | | | | |
| b. | | | | |
| c. | | | | |
| d. | | | | |
| e. | | | | |

Name of Course Instructor: _____

Signature: _____ Date Report Completed: _____

Program Coordinator: _____

Signature: _____ Date Received: _____