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AUTHOR                   Rebhun, Herbert F.  
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ABSTRACT

This report provides information concerning one teacher's experience in teaching college courses for Arkansas State University in the area of computer information systems to Saudi Arabian men employed by the Saudi Arabian Customs Automation Department. The students had spent approximately 2 years in Arkansas taking courses, and then went back to Saudi Arabia to work as junior programmer trainees. Problems and concerns in the selection of the students, and issues that they faced while in the United States are discussed, including: problem-solving approaches compared to rote memorization; the logistical issues of a different work week; religious holidays and daily religious prayer activities of the Saudis; the practice and understanding of Western business management principles; and issues revolving around the use of English in teaching and in the work environment. (JL)

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TEACHING COLLEGE COMPUTER COURSES IN  
SAUDI ARABIA  
(ISSUES CONCERNING THE CLASSROOM AND THE CULTURE)

Herbert F. Robhun  
Computer Information Systems  
University of Houston-Downtown  
One Main Street  
Houston, Texas 77002

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**TEACHING COLLEGE COMPUTER COURSES IN SAUDI ARABIA  
(ISSUES CONCERNING THE CLASSROOM AND THE CULTURE)**

Presented by  
Herbert F. Rebhun, Ph.D.  
University of Houston-Downtown

**OVERVIEW**

During the academic terms of 1987-88 and 1988-89, this author was engaged in teaching computer information systems (CIS) classes to Saudi Arabian men who were employed by the Saudi Arabian Division of Custom's Automation Department. These courses were a continuation of their American degree program that they were enrolled in through Arkansas State University (ASU).

This paper will describe the CIS curriculum and logistical and cultural problems and issues for a Westerner teaching in an Islamic country. This paper is also being presented to provide information concerning various issues that an American faculty member might often encounter if they were to be fortunate to teach in a foreign environment and if that environment was in a culture that is quite different from that found in the United States.

**COMPUTER INFORMATION SYSTEMS PROGRAM**

Arkansas State University has conducted an educational program for the Saudi Arabian Division of Customs, Automation Department for approximately seven to eight years. The program was administered through the cooperative efforts of the United States Department of Customs and the US and Saudi Arabian Joint Commission on Economic Cooperation agreement. The purpose of this program was to provide

a baccalaureate US educational degree program in the field of Computer Information Systems (the major degree in business computers throughout the United States) to the Saudi men. This degree program was the same degree program that a typical American student could follow if that student were enrolled on the ASU campus in Jonesboro, Arkansas. Upon completion of this degree the men would then be able to move into professional computer positions in the Automation Department of Saudi Customs.

The CIS program (Figure 1) was a 124 credit hour curriculum consisted of 44 hours of General Education classes, 36-39 hours of business core courses (those required by the Common Body of Knowledge to meet accrediting standards of the American Assembly of Colleges and Schools of Business), 21 hours of required CIS classes, and an additional 23-30 hours of electives (CIS or others). When successfully completing this program, the Saudi student received a Bachelor of Science degree with a major in CIS.

The student spent his first two years of the program attending the classes on the ASU campus in Arkansas. After this he was to continue taking his junior level CIS classes in Riyadh, Saudi Arabia while he was working as a programmer/analyst trainee for Saudi Customs. If he was successful in this "branch campus" effort then he was to return to the ASU campus to finish those courses needed for completing the degree.

ARKANSAS STATE UNIVERSITY  
CIS CURRICULUM

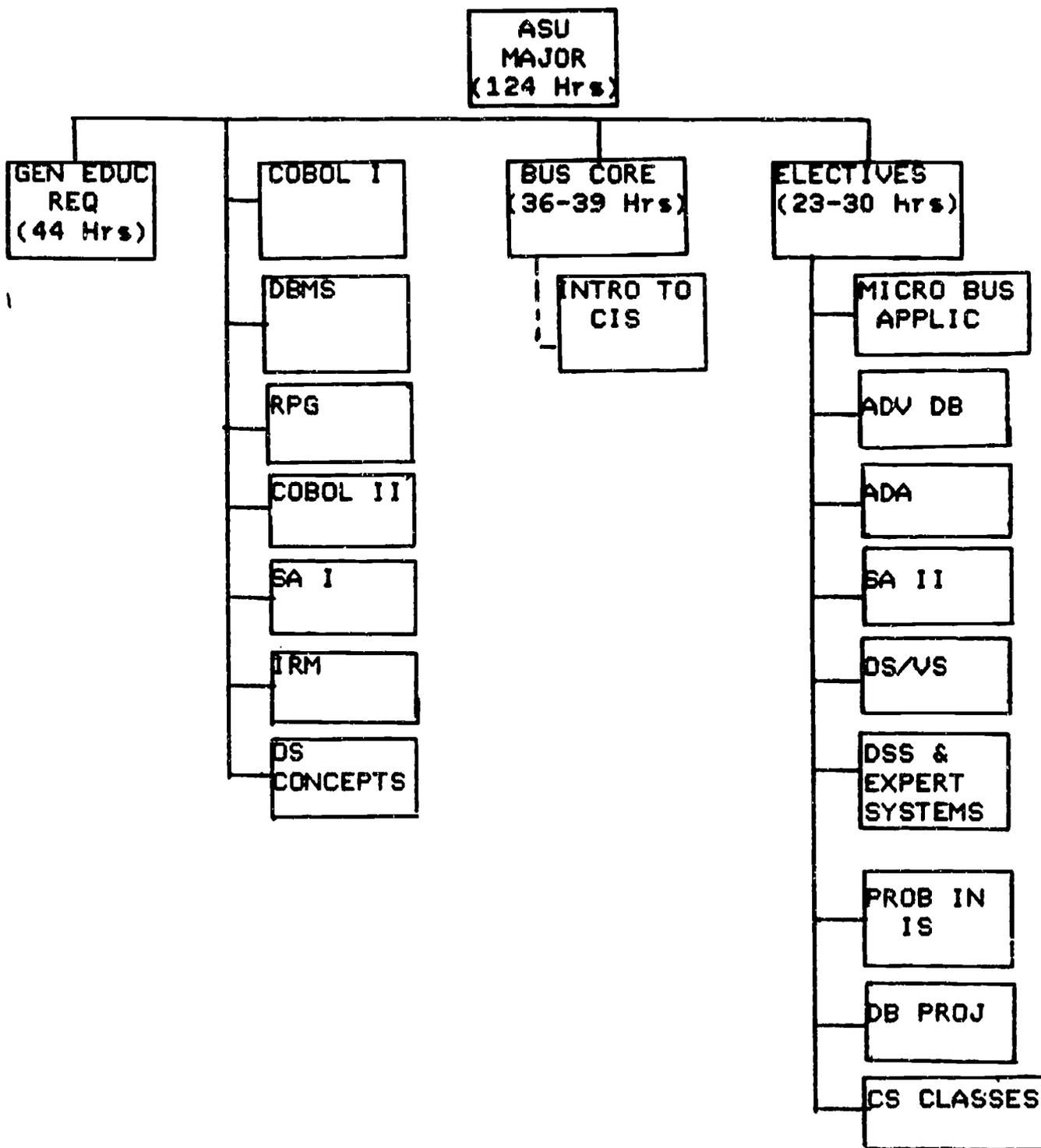


FIGURE 1

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### **CLASSROOM ISSUES**

Among some of the many issues that confronted this author, and others who may teach in an Arabic/Islamic setting, are (1) prayer breaks, (2) the religious period of Ramadan, (3) Western business principles, (4) misunderstanding, or not understanding, commonly used/accepted English in US classrooms, (5) the issues surrounding problem-solving versus rote-memorization, and (6) class dishonesty problems.

### **Religious Issues**

The typical working/teaching day was subject to interruption at least twice a day due to prayer time. What this meant was that when the "Call to Prayer" was broadcast over the various loudspeakers in the office or outside from a mosque, it meant that within 20 minutes one would have to stop either the instruction, or lab work, or test, or work that was being performed and permit the student to leave to go to the mosque for prayer services. This interruption, although only supposed to be 10 minutes in length, often was stretched to 15 to 20 minutes by the time the student "wandered" back to the classroom or lab.

In addition to this situation, an individual's shopping or other external activities may also be interrupted at least two more times in the early evening due to these various prayer times. This is obvious a possible problem to the Western business person who might also be traveling to Saudi Arabia (or other Muslim countries) and

could find himself frustrated by this type of work-day interruption.

Another religious issue is the celebration of the holy period of Ramadan (approximately one month in length). During this time the intensity of religious activities increases. The Muslim will fast (no water or food) from sun-up to sun-down. This means that during the early days of the celebration the student may be slightly dis-oriented or not able to function at his best due to the lack of sleep or food. They generally eat very large meals immediately after sundown in the early evening and at the time immediately before sun-up. During the later stages of this period, their work/study habits may decrease as the day goes on and their stress-level may be very high. Generally all of this means that the instructor must be cautious in his expectations of good performance when the student may not be at his peak of intellectual capability.

**Western Business Principles**

The traditional theory of management principles of Organizing, Planning, Staffing, Directing, and Controlling<sup>1,2,3</sup> are found in almost all aspects of business throughout the world but often are practiced differently. Since a great majority of the Saudi male population are employed in government positions some of the management principles are not traditionally followed. At the same time, the rise in the number of small businesses also appears to not always adhere to these management principles. The following is a discussion of these principles:

## **Organization**

The hierarchical management style is understood and is the principle organizational arrangement. The reporting status of the subordinate to the superior is ingrained in the Saudi and the give and take of business discussions is acceptable. However, newer management approaches often do not seem to be attempted. Some examples such as the use of the matrix management process, shared decision making, and distributed management are all fairly rare unless introduced by a Western sub-contractor.

Since these newer management principles are not practiced often in the Kingdom, it meant that the discussion of them in the classroom was not only an English syntactical issue, but a perceptive difficulty also.

## **Planning**

The operational, tactical, and strategic approaches to planning seem to occur more often in the more technical corporations. The overwhelming amount of oil in Saudi Arabia could lead to an assumption that all planning and jobs are focused only on oil but the Saudis do have an extensive amount of planning and work going on in various solar energy projects. In addition their desalinization of salt water for use in drinking and agriculture, leads the world. The computing environment, that this author worked in, seemed to be focused on the strategic long-range planning of automating all of the custom duties that are collected at all the ports (land, sea, and air) where goods enter the Kingdom (revenue from this is the second major country revenue after oil).

Discussion of the planning principles in the classroom was relatively easy since the men did have general knowledge of operational (immediate), tactical (mid-range), and strategic (long range) principles.

**Staffing**

As previously stated, since a great majority of the employed male population is employed in various government jobs the staffing of these is often very bureaucratic. Civil service tests and promotions and movement within jobs is often the major impetus to the hiring process. Since the ancient tradition of family affiliation is extremely strong, the results of tests or of successful work situations may often be ignored so that relatives and friends might move into or up in positions. Classroom instruction concerned with the principles behind appropriate staffing issues was often met with a sense of cynicism by the students. The expectation that this could, or even should, be changed was also not seen as a reachable goal.

**Directing**

Since a major focus of Western directing of the employee in an organization revolves around training and motivation, these were often subjects for classroom discussion. The Saudi government employee is extremely interested in training classes but only if they will have some affect on that employees improvement in civil service job ratings. The academic program that this author was teaching in was an example that the student took very seriously the US college credit classes and saw them leading to either the

associates or bachelors degrees. The degrees (education) were not seen as an intellectual achievement in and by themselves, but rather as a stepping stone to better civil service ratings and thus possible job promotion. Obviously, this situation occurs often in our own country but seemed more pervasive there.

The discussion of motivational issues, in the management segments of the classes, again was often received with skepticism. It was often seen and felt that the overly motivated might disrupt the natural promotional process or of no value since promotions were so tied to civil service issues or previous family associations.

**Controlling**

The setting of standards to judge employees by have often been less than expected since many of the newer positions are heavily tied into the high technology field and because the lack of technical backgrounds has only been addressed over the past decade as the younger employee has been trained/educated. As a result, instruction in the setting of objectives and standards to be measured against is often based on the Western sub-contractor's own standards which may not be reflected in the cultural differences that should also be present.

**Class Dishonesty**

Another major issue that seemed to be somewhat pervasive through all student groups, but not by all students in the groups, was the academic concern over more attempts at dishonest class activities than are normally expected (or found) among Western students. This constant monitoring of these actions brought criticism to the

entire program by many of the ASU faculty, and thus generalization of these activities to all the students. This author also experienced a more than usual number of attempts to perform dishonestly in either tests, assignments, or projects. The solution, for this author, was an attempt at more essay examinations, more individualized assignments, and grouping together, on team projects, those students who seemed to "do their own work" and grouping together those who seemed to "let others do their work", with the result that the latter group ended up having to do some of the work themselves or else not getting it done at all.

**ENGLISH LANGUAGE ISSUES**

The teaching of classes in a foreign setting is truly a very rewarding experience, however it strongly indicates the concerns that an American has with his/her generally mono-linguistic background compared to those who are bi-lingual or tri-lingual. The following section describes the English instruction and daily usage of English by the Saudi students.

**Early English Instruction**

Upon being accepted into the ASU/Saudi program (prior to going to the US) the Saudi student was involved in an intensive immersion program. The instructors were either American or British men who have taught English classes previously (generally they did not have a degree in English nor were they ESL certified). For approximately 5-6 hours a day for nine months, training/instructional classes was

presented using lectures, multimedia presentations, writing, reading, and oral presentation exercises, and examinations. The textbooks were those used to teach English to the adult learner. More advanced students or those getting closer to completing the classes would use more advanced text material.

In addition to the instruction in the formal use of English, the advanced students were presented with information concerning American cultural and social issues. The Saudi Muslim male has to be able to accept the fact that he will be living and studying in a co-educational setting. He must also be tolerant of the very Christian country, and Arkansas locale, that is represented in the US. In addition the legal use of alcohol in the US must be understood. Finally, the Western mode of clothing, including swimming suits at a traditional mixed American beach or pool, must be accepted as not an immoral breach of conduct.

#### **American/ASU Instruction Experiences Using English**

The student who was accepted to the formal ASU classroom continued his education in the daily US classroom situation together with other ASU students. The Saudi took the standard English Composition and English Literature courses together with other General Education classes. He also took College of Business core classes and CIS classes. All of these assumed that his understanding of English was at the level of expectations for any international student at ASU.

Those Saudi students who desired could take non-credit English

classes, offered by the ASU/Saudi Center's ESL instructors. These classes aided the student in doing better in the general college classes, without the stress of grades.

**On The Job Training In Saudi Arabia**

Upon returning to the Kingdom (after approximately two years on the ASU campus), the student assumed an OJT role with the Automation Department. During this OJT period, the student used technical English computer manuals, programmed computers using software written in English, and generally reported to a Western manager. The immediate job supervisor was either a Saudi graduate of the ASU program (or another American college), or a further advanced current CIS student himself. All peer-level computer colleagues were either Saudis in the ASU program or had completed the program and thus most of their day-to-day dialogue was in Arabic. Professional computer training classes were generally taught by the professional Western computer staff or outside computer vendor (often Western) and all the material was in English. Only occasionally did this training have tests/examinations to measure effectiveness and comprehension.

**ASU Classes In Saudi Arabia**

As previously stated, this author taught those ASU CIS classes that were needed by some of the men to continue their movement towards either the Associates or Bachelor's degree in CIS. All instruction was in English, all tests were in English, and all classroom

activities (except normal social discussions among the students) was conducted in English.

Despite the technical nature of the CIS degree classes, this author required in all classes (including programming) some written English activities (this is also what is done by the author in his US classes). The papers were graded/reviewed for not only content matter but also appropriate English grammar and spelling. This effort was the only graded process to continue encouraging the improvement of the Saudi's English capabilities. In all classes that had more of a management aspect, the student also made formal oral presentations on topics appropriate to the subject matter of the course. In some instances, the oral presentation required the student to use multi-media while presenting the subject. One purpose for these communication endeavors was to encourage those activities that are done in the US corporate environment. A second reason was to continue to prepare the student for his return to ASU to finish his degree program.

**Concerns/Issues With The Saudi's Use of English**

Generally the student was comfortable with the conversational use of English but the formal written use still pointed out English-usage gaps ranging from tolerable to potentially serious enough that unless improved the student might not be successful in those remaining US/ASU classes that required better understanding/usage of English (ie. English Technical Writing, Business Communications, Business Policies, Marketing, etc.). This author often had to interrupt the normal instructional routine of presenting computer-

related material to define, discuss, and demonstrate Western business or English terms that the student was reading or listening to in the lecture.

Another minor issue, that any college professor practices in the classroom, is the occasional humorous antidote, joke, or other touches of humor. The problem with this in teaching in the international culture setting was that often the "point" or "idea" of the story was not understood by the student. At this time when the story had "fallen flat" or a "MYGO" effect was detected on the students, now required this author to attempt to explain the story. Often this took more time than desired, the story had lost its original emphasis purpose, and vows to be more cautious in presenting similar stories in future lectures.

#### **Problem Solving Issues**

The use of the Socratic dialogue method of teaching some classes is one that Western faculty routinely employ in order to elicit the thinking that is desired by the teacher as that student ponders how a situation is answered. Unfortunately, many of the Saudi students are not used to this method of instruction. The concept of using the systems approach to problem solving<sup>4,5</sup> primarily involves breaking the problem down into smaller segments (Systems Analysis) then attempting to work on solutions to each of the part, then putting the solutions of the individual parts back together (System Design), testing and modifying the solution, and finally implementing the new application.

The reasons that this situation appears to not be present in the Saudi was that his previous Saudi public education was often conducted using a humanistic/religious approach that lent itself to rote memorization and generation of facts rather than incorporating the scientific method of problem solving together with their humanities courses.

This author experienced this often when the student was initially able to follow the computer-solving example in the text and duplicate the approach in home work as long as the difference between the text and the assignment was minimal. However, when an assignment was too different from the text example it often became extremely difficult for a large number of the men. In an attempt to overcome this issue, the author presented additional strategies and examples to approach the problem, in addition to the traditional willingness to work one-on-one with a student.

The same issue appeared in the System Analysis courses since the abstract process of translating the problems of management information systems requires these same problem-solving situations. The author attempted to improve these issues by creating teams that were encouraged to work together and thus by pulling the individual strengths of the students it was hoped to assist in solving the problem. At the end of the two years of instruction, this author is still not certain that the early educational process that did not emphasize the problem-solving approach was overcome in the instructional time period.

### LOGISTICAL ISSUES IN TEACHING

Finally, one of the major problems in teaching, or working, in the Middle East is the time differences between these countries and the US. A second problem was that most of the Arabic countries, following a lunar calendar and Muslim religious workweek, worked Saturday through Wednesday with the weekend being Thursday and Friday. Thus the contact within the normal working hours of either college, business, or government offices in the US and the overseas office was often from six to nine hours different and only for three days of the workweek. What this situation often meant was that a message (using a form of Fax or Telex) from Saudi Arabia to ASU was sent sometime during the Saudi work hours so that ASU personnel would receive it upon arriving at work and they could send a reply back that would be available upon this author's arrival at work the next day. The time when both ASU and Saudi personnel would be available was only for approximately three hours on Monday, Tuesday or Wednesday.

The Saudi Custom's building and work facilities were very modern and the computing environment consisted of the most up-to-date equipment and programs used in the Western business world. Some of this hardware consisted of an IBM 3083 main-frame computer, many IBM and COMPAQ microcomputers, DEC micro-VAX supermicros, and appropriate support peripherals. The computer software utilized the major database of ADABAS, systems analysis STRATIS software, COBOL and C for application program development, Microsoft WORD

wordprocessing, LOTUS spreadsheet, dBASE III+ and RBASE System V both for micro databases, and Ventura desk-top-publishing.

Since all instruction was conducted in English using the textbooks that ASU used there was no problem in this situation except for the receipt of the books in time for the classes. The CIS classes that this author taught were presented two per eight week term with each class being offered twice a week for approximately three hours per period of instruction. Saudi Customs maintained a very good technical library with other computer college textbooks, some English instruction textbooks, a great many reference manuals and on-the-job support material. In addition to the hard cover print material, the library had an extensive set of English-language journals, trade magazines and newspapers, and general purpose magazines. There was a smaller set of technical Arabic literature which was growing as the translations have begun to take place.

### SUMMARY

This paper has attempted to provide information concerning this author's experiences, observations and problems/concerns in teaching college courses for Arkansas State University in the area of Computer Information Systems classes to Saudi Arabian men who are employed by the Saudi Arabian Customs Automation Department. The students had spent approximately two years in Arkansas taking their freshmen and sophomore classes and were now back in Saudi Arabia working as junior programmer trainees. This author was on leave from the University of Houston-Downtown and was employed to continue teaching the CIS courses that the students needed to move closer to finishing their degree program.

Problems and concerns in the selection of the students, issues that they faced while in the US, and problem-solving approaches compared to rote memorization were discussed. In addition the logistical issues of a different work week than in the US and a eight-nine hour time difference was presented. Religious holidays and daily religious prayer activities of the Saudis is also a concern. The practice and understanding of Western business management principles is also presented. Finally, those issues revolving around the use of English in teaching and in the work environment were presented.

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