Hygiene Training for Food Handlers
Hygiene for Food Handlers

Hygiene is the most important aspect of running a restaurant. Quality of the food comes second only. Customers normally trust the restaurant and the quality and sanitation authorities when it comes to hygiene in restaurants where they buy or eat food. It is the primary responsibility of the restaurant authorities to keep the kitchen and the dining areas clean all the time. It is neither possible in the long run neither fair to hide dirty kitchen or dining area of restaurants. Any hidden dirty secrets will eventually be found by customers or health or sanitation agencies of the government.

Cooking and serving food in unhygienic conditions can bring many dangers. It can cause disease and food poisoning to the customers. It is the responsibility of the restaurant authorities to ensure sanitation of eating places safety and hygiene of the food served. Cleanliness of a restaurant does not stop at cleaning or mopping the floor and cleaning the tables. Deep cleaning of utensils and items used for cooking at regular intervals helps reduce bacterial accumulation. Only high quality cleaning solutions and chemicals should be used for cleaning and sterilizing utensils and cooking equipment.

What is more important is training the restaurant personnel on food safety and hygiene and update their knowledge in this area. Staff should be reminded to wash their hands regularly, especially before preparing and serving food. In fact, proper hand-washing is one of the most important aspects of good personal hygiene. Many food handlers fail to wash their hands correctly and as often as needed. Restaurant authorities should ensure that their staff wash hands in sinks designated for hand washing. Head of food handlers should be covered to avoid hair strands falling into the food. They should wear clean clothing and avoid smoking, spitting and chewing tobacco while cooking and serving food. Food handlers should stay away from work if they are ill.

A study that evaluated food safety and hygiene knowledge food handlers in restaurants in Muscat reveals that decreased knowledge about food hygiene causes high microbial contamination. Increased knowledge about food safety and hygiene is important for improved hygiene practice. The study, carried out by food scientists from Sultan Qaboos University, recommends continued education and training courses to update knowledge of food handlers to ensure proper hygiene in restaurants.
SQU Council held its third meeting for the academic year 2016-2017, which was chaired by H.E. Dr. Rawiya bint Saud al Busaidiyah, Minister of Higher Education, and Chairperson of the University Council. The agenda included a number of topics on which appropriate decisions were taken. The Council discussed the proposal to establish an effective communication system between the Student Advisory Council and the Student Liaison Committees of SQU Colleges and the Center for Preparatory Studies, through the establishment of a student communication forum with representatives of these bodies.

The Council adopted the proposal for amendments in the academic promotion list at the university, and the lists of students graduating in the Fall semester of the academic year 2016-2017 with doctoral, master and bachelor degrees. The Council reviewed a presentation on the University’s response to the reduction of the current budget for 2017 and the mechanisms of dealing with it, in the light of the University’s keenness to achieve its vision, objectives and mission in parallel with the reduction of funds for the operational budget. The Council also reviewed a presentation on the international classification of SQU over the past years provided by the Office of International Cooperation and what has been achieved in this regard. The Council commended the efforts made by the University in this regard and directed to continue this approach.

The third English & Translation Forum of the English & Translation Society at SQU was held recently. The opening ceremony was under the patronage of Dr. Fouad Elkarnichi, Translation & Interpreting Instructor at King Abdul Aziz University, Kingdom of Saudi Arabia, gave the keynote address on “Translator training in the Gulf region: reflections and results from an exploratory research study on BA and MA translation programs in the state of Qatar”.

Speaking at the opening ceremony, Dr. Mohamed-Habib Kahlouqi, Chair of the organizing committee of the third English & Translation Forum, said that the event is the outcome of a time-consuming process and hard work of the students. “The translation symposium this year transcends its status as an extracurricular student activity to provide a context for the English department’s ongoing internal and external review of the BA Translation program. If translation theory and practice are well researched, it is not the case of translation classroom research, specifically in our regional context. We are expected to assess our options, rethink and restructure our offerings to avoid a situation where the translation classroom is overtaken by new didactic needs”, he said.

SQU to Set up Student Communication Forum

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University of Tokyo Keen to Boost Ties with SQU

A delegation from the University of Tokyo recently visited Sultan Qaboos University and discussed about strengthening academic ties between the two universities. The Japanese university officials’ visit to SQU was facilitated by the Japan-Oman Society that seeks to foster and cooperation in business, educational and cultural fields between the two friendly nations. The delegation consisted of Hidemi Takahashi, Namie Tsujigami and Naofumi Abe. The University of Tokyo officials was received by H.E. Dr. Ali bin Saud Al Bimani, the Vice Chancellor of SQU, and academics from the College of Arts and Social Sciences in addition to officials from SQU’s International Cooperation Office. The two sides discussed about fostering ties between the two universities through exchange of students and researchers and collaborative research in areas of mutual interest.

They discussed the possibility of sending students from SQU who study Japanese language to the University of Tokyo for summer training with the support of Japan-Omani Society. They explored the possibility of SQU hosting Japanese students who study Arabic language and who come to Oman for short visits under student exchange programs. The meeting also discussed about starting joint research programs between the universities in Arabic language, history and political science to be facilitated by Sultan Qaboos Chair in Middle-Eastern Studies at the University of Tokyo.
Restaurant refers to any business and food premises that is primarily involved in the sale and preparation of ready to eat food for immediate consumption. In many instances, restaurants are associated with outbreaks of food poisoning. Food safety programs are prerequisite for restaurants’ standard. Hygiene are the conditions or practices to maintain good health and to prevent diseases, especially through cleanliness. In order to achieve food safety, it is important to achieve good hygiene. Food safety is an essential requirement to achieve food security and it is a challenge to be achieved. Improved quality of food safety means fewer incidences of food poisoning episodes, less use of health services due to symptoms of food poisoning and related diseases, thus a potential reduction in the cost of health care. In order to achieve it, each member of the community must play a role.

Recently, a research team from the Food Science & Nutrition Department of Sultan Qaboos University, that included Ms. Maryam Al Ghazali, MSc. student, Prof. Mohammad Shafuir Rahman, Dr. Ismail Al Bulushi and Dr. Lyutha Al Subhi, conducted a research project entitled “Food Hygiene Knowledge and Practices among Food Handlers at selected Restaurants in Muscat Governarate”. This study evaluated the food safety and hygiene knowledge of food handlers and their hygiene practices at selected restaurants in the Muscat Governarate. A total of 18 restaurants were selected from 3 wilayat, 6 from each wilayat, with a total of 18 food handlers per wilaya. A questionnaire was designed to assess the food safety, hygiene knowledge and practices of the food handlers; it included question on six main criteria: hygiene, food poisoning, food handling, cooking, knowledge of the Municipality rules and food handlers’ training. The original questionnaire in English was translated into Arabic, Urdu and Hindi and was divided into knowledge and practices. The questions were prepared based on the pilot test, suggestions from experts working in the food hygiene and the literature reviews of previous studies. Each parameter assessed knowledge and practice questions with three optional answers of “Yes/No”, “True/False”, “Do not know and multiple categories” and some were short answer. For example, dish washing soap is used to kill microorganisms, A: True, B: False and C: I don’t know. This question was scored 1 for correct answer, and as given 0 for in correct answer. In another types of questions can scored more than 1. For example, utensils and equipment are cleaned by, A: Soap only, B: Soap and disinfectant, C: Soap and chlorine (i.e. sanitizer). This question was scored 1 for answer A, 2 for answer B and 3 for answer C. Finally total score was determined as a percent of total marks assigned to all questions. A pilot study showed the reliability and validity of this questionnaire. Hygiene parameter included 31 questions (i.e. 18 questions testing knowledge and 13 questions examining practices). The participated food handlers in this questionnaire had given a plenty of time (20-30 min) to respond independently to answer the questions. Two restaurants were visited per week, from each restaurant and three food handlers were selected. In addition, swab samples were collected from hands, chopping boards and knives to assess the hygiene practices microbiologically. The microbial tests were conducted for Total Aerobic Bacterial Count (TABC) and Enterobacteriaceae (ENT), which are commonly used to assess hygienic status.

This study found that the knowledge and hygiene practices of food handlers were inversely and significantly correlated. The inverse correlation indicated that decreasing knowledge caused high microbial contaminations. This indicated that increased food knowledge improved the hygiene practice (i.e. decreased the microbial contamination). Therefore, continuing education and updating knowledge could be achieved by attending training courses by the food handlers to enhance knowledge and practices of the food handlers. This study concluded that in order to provide a safe food in the community, food handlers’ knowledge should be enhanced through continuous training in food hygiene and safety. Food safety rules, i.e. risk based food safety and educational programs (i.e. Hazard Analysis and Critical Control Point, HACCP analysis; good Manufacturing Practice, GMP) should be available to all workers at the restaurants. This could maintain a minimum level of understanding on the hygienic knowledge and practices on food handling, cooking and personal hygiene. It would be good to offer training in their language and to emphasize on enhance their motivation. The researchers also pointed that other factors, such as updated food laws and regulations, and implementation of regulations in some instances could also be beneficial. The results in this study were obtained from small pool of restaurants. For further improvement of this study, the questionnaire and lab work could be implemented on a large sample size and it might be interesting to extend this study to other cities in the Sultanate. The researchers in this project would like to acknowledge the supports of the Muscat Municipality in running the survey and performing the experimental works.
The Writing and Tutorial Centre (WTC) is part of the Centre for Preparatory Studies (CPS) at SQU and it aims to help foundation students in English. The WTC was opened in 2010 and has proved its success over the years. There is a huge number of students visiting the Centre and this is increasing year after year. For example, the number of visiting students was 4,333 in 2013, 5,036 in 2014, and 6,281 in 2015. If anything is to be inferred from these numbers, it would undoubtedly be the students’ urgent needs for such services and the benefits they get from the Centre.

The WTC center is divided into the Writing Centre and Tutorial Centre. The Writing Centre is dedicated to the teaching of writing skills by foreign instructors who speak English fluently and have experience in teaching English as a second language (ESL). Therefore, it is highly recommended for students in level 4, 5 and 6, and for those who would like to enhance their writing skills. On the other hand, the Tutorial Centre aims at improving students’ speaking, reading and presentation skills as well as writing for the lower levels such as level 1, 2 and 3. The tutors in the Tutorial Centre are students from SQU who excel in the English language and have eligible knowledge to help their peers. Furthermore, the tutors provide some tips and advice to help the tutees acquire the language and improve themselves academically. In addition, unlike the classroom, the WTC offers one-to-one sessions where students can get more intensive attention.

Recently, the Centre has become a subject of a number of studies. One interesting study conducted on the Tutorial Centre is “Bridging the gap between ideal and reality through peer tutoring” presented by Susan Finlay in the Oman 16th International English Language Teaching (ELT) Conference. Another study was conducted on the Writing Centre and entitled “Evaluating reality: reflections on writing sessions” which was presented at the above mentioned conference by Ryan McDonald. Additionally, there have been some crucial improvements in the Centre this year. Firstly, it has introduced teaching Mathematics and IT for foundation students and furthermore, the number of the peer tutors and writing consultants has been increased providing more sessions for the students.

I find it vital to mention that joining the Tutorial Centre as a peer tutor has been one of the most fruitful experiences of my life. The Centre is a very cozy place, the peer tutors and the writing consultants are brilliant, and the office staff are extremely cooperative. I would like to quote from Mr. McDonald, who mentioned on his last day in the Centre, “I think it is the only place in the Sultanate of Oman where people work so closely and powerfully together.” I wanted to raise my voice at that moment and say I do think so! I think that we, in the Tutorial Center, have been one family whose main aim is to improve the services provided by the Centre.

I have to admit that I have gained a lot of benefit being a part of the WTC. I had the opportunity to teach before entering my actual teaching profession. This experience improved my teaching skills, expanded my horizons and most importantly, made me value time. I realized the real meaning of appointments and the importance of being on time. It is extraordinary how every peer tutor and writing consultant make the best of the half hour session for each and every tutee. Everyone in the Centre enjoys his/her work and it is reflected in the tutees’ feedback. A survey is distributed towards the end of every semester for the tutees to evaluate their experience in the Centre.

The results of the survey are pretty interesting. Almost all of the tutees have positive attitudes towards their experiences as well as the staff in the Centre. For example, one of the tutees wrote that he had “[a] valuable and interesting experience.” Another tutor mentioned that he had “[a]n enjoyable and perfect experience.” It seems that the tutees like the one-to-one sessions and find them beneficial, since there are some who attend the Centre regularly. The tutees not only perceive their experiences positively, they also have a say about the staff in the Centre. For example, one tutee mentioned “my tutor is very smart and understands me” and another wrote “the tutor gives me useful information. She is the best.” Such feedback is highly appreciated by the staff in the Centre and it encourages them to improve the services provided to reach the highest possible level.

Overall, I would invite all students who struggle in learning the English language, and would like to improve themselves, to visit the Centre. I would also recommend that students who are competent in the language join the Centre as peer tutors. The experience is incredibly worth it!
A group of students from the Civil & Architectural Engineering Department, College of Engineering, at Sultan Qaboos University won the first and second places in the competition “Space for Real Life: Green Urban Regeneration” which took place in Sapienza University of Rome. The team consisted of students Hafsa Al-Buloshi, Alaa Al-said, and Sundus Al-Habsi, got the first place whereas the team consisted of Shatha Al-Saifi, Reem Al-Hashmi, Rahma Al-Isai and Abrar Al-Hashmi shared the second place with a team from Al-Mansora University. 

Dr. Chaham Alalouch, Assistant professor, Civil and Architectural Engineering Department at SQU, the supervisor of the students and a member in the scientific committee at the international Winter School said that the work lasted for 7 days where the students attended lectures and interactive activities by architectural, and city planning professors from over the world. In addition, the lectures discussed contemporary issues and enriched the students with required practical and theoretical methods. The students were divided into groups to find possible solutions in order to develop social, economic and tourist aspects of the region.

USIM is an emerging Islamic university, which is fully owned and funded by the Malaysian Government. It aims to spearhead knowledge and be the global reference centre for Islamic Science. USIM embraces a holistic approach that integrates religious sciences with the social and physical sciences in all its programs. The programs seeks to achieve a comprehensive understanding of current global problems and offers a fresh alternative in solving them. The program track include Islamic Studies, Quran and Sunnah; Islamic Science, Technology and Engineering; and Islamic Arts, Social Science and Humanities. USIM offers 68 academic programs through nine faculties for around 12000 students. The number of international students is around 700.

In the opening ceremony, Dr. Osman Abdallah, Director of the Water Research Centre at SQU, delivered the welcome address. Dr. Jamila Al Hanai from the Research Council (TRC) gave an overview of the water research strategic program in Oman. A strategic program for water related researches was approved by TRC as part of the recommendations of the third symposium for Sultan Qaboos Scientific Chairs which was organized by Sultan Qaboos Higher Centre for Culture and Sciences. Later the Minister presented awards to the winners of the strategic water research program.

The “wastewater treatment and applications” workshop featured keynote speeches in addition to a number of presentations from the Sultanate. Prof. Jan Vymazal from the Department Applied Ecology, Faculty of Environmental Sciences, Czech University of Life Sciences Prague, spoke about the use of constructed wetlands for various types of wastewater. Dr. Ahmed Abdel-Wahab, Chemical Engineering Program, Texas A&M University at Qatar, Doha, Qatar, spoke about advanced reduction processes in water and wastewater treatment.
Under the patronage of the dean, Dr. Rashid Al-Yahyai, The Food Science and Nutrition Department of the College of Agricultural & Marine Sciences at Sultan Qaboos University recently organized a workshop entitled “Diet, Lifestyle and Cancer Prevention”. The workshop sessions addressed current topics in nutrition and food in cancer prevention with relevance to Sultanate of Oman. “The event was aimed to create awareness on prevention and initial screening of cancer and to update researchers and clinical staff about new research findings which will enhance Oman’s research base and to reduce the increasing financial burden of cancer treatment”, said Dr. Mostafa Waly, Associate Professor in the Department of Food Science and Nutrition. The papers covered a broad range of topics on cancer prevention such as Functional Foods, Dietary Antioxidants, Natural Therapeutic Agents, Dietary Supplements, and Nutrition after Cancer Diagnosis. There were two sessions and chaired by Dr. Ahmed Al-Alawi, Head of Department, and Prof. Nejib Guizani.

Dr. Amanat Ali, Associate Professor in the Department of Food Science and Nutrition said that diet plays an important role in the prevention and reduction of cancer risk. Almost 35% of all cancer deaths have been related to dietary factors such as high caloric intake, saturated fats, red and processed meat, energy-dense fast foods, sugar, salty snacks and sugar sweetened beverages. Certain nutrients and phytonutrients, have been shown to possess antioxidant and chemopreventive effects. These dietary components may prevent the initiation of cancer either directly by scavenging the pro-oxidant free radicals or by inducing the cellular detoxifying antioxidant enzymes and thereby can reduce the risk of cancer. Dr. Yahya Al-Farsi from the College of Medicine and Health Sciences, said that the high rate of urbanization and a steady increase in the per capita income, during the past years, has improved the socio-economic status of the people in the Sultanate of Oman; this has resulted in drastic changes in their lifestyle and food consumption patterns. Traditional foods are being replaced with Western-style ready-made foods, and the consumption of plants-based foods (fruits and vegetables) has decreased. Dietary pattern that is characterized by low intake of antioxidants and vitamins B among Omani adults population has led to an increase in the prevalence cancer that will drain Oman’s human and financial resources, if appropriate strategies are not developed and introduced to the current health care system for the primary prevention of such chronic disease.

Dr. Sivaprasad Menon, gastroenterologist at Starcare Hospital, said that Gastric cancer has been considered a single heterogeneous disease with several epidemiologic and histopathologic characteristics. A complex interaction between genetics, lifestyle and environmental factors exist in the causation of gastric malignancies. Onset of gastric cancer is strongly related to the chronic and acute gastritis which is not treated or controlled, and that the environmental factors are the main cause of gastritis. Dr. Safana Salim Al-Saidi, a Chemical Pathologist, working at the Directorate General of Quality Assurance Centre Ministry of Health, said that Prostate cancer is the leading cancer in older men. As per the Ministry of Health Oman Cancer Incidence Registry, cancer of prostate is the second most common cancer (in males). Therefore, early detection is important and prostate-specific antigen (PSA) is widely used as an established laboratory test for this purpose.

Dr. Ikram Burney, a consultant in Medical Oncology at SQU Hospital, pointed out that modern life style and faulty food habits have serious impact on increasing body weight. Obesity and cancer are regarded as two major epidemics of the 21st century, where obesity is known to cause several cancers, including cancers of colon, post-menopausal breast, uterus, pancreas, gall bladder, liver, esophagus and kidney. Overall, 3% of all the cancers in men, and 9% of those in women can be attributed directly to obesity, he said. Mrs. Buthainaa Al-Bulushi from the department of Food Science and Nutrition at SQU gave a presentation on “Dietary and Lifestyle Factors and Risk of non-Hodgkin’s Lymphoma (NHL) in Oman” in which she said that the incidence of this disease increases among those with low intake of vegetables. The consumption of fruits and milk however did not show any significant association with NHL risk.

Dr. Maie Mohamed Naga, a senior medical officer, working at the Nutrition Department, National Diabetic and Endocrine Center said that nutrition plays major roles in many aspects of cancer development and treatment. Malnutrition is a common problem in cancer patients that has been recognized as an important component of adverse outcomes, including increased morbidity and mortality and decreased quality of life. Weight loss has been identified as an indicator of poor prognosis in cancer patients. Dr. Ruqiya Al-Balushi, the head of the clinical dietetics department at Royal Hospital and a visiting consultant at the Nutrition and Food department at SQU, gave a presentation on the link between Nutrition, Inflammation and Cancer Risk. She pointed out that the prevalence of cancer is growing worldwide, and the evidence base for a link between cancer, obesity and dietary habits is increasing.

Presenting a paper titled “Antitumor Activities of Bee Products”, Dr. Hassan Talib Al-Lawati, the Head of Honey Bee Healing Center at the Ministry of Agriculture, and an apitherapy expert said that honey bee is a beneficial insect which play many roles in different subjects such as ecology, economy, agriculture and medicine. There is a wide spectrum of bee natural products like honey, royal jelly, bee pollen, bee bread, bee wax, propolis, bee venom, and other direct and in directs bee products. All of this products was widely used in commercial production especially honey, in addition to their medical use because they have their benefit effect in the human body.
Renewables in Oman: Status Quo and the Way Forward

Bushra Al Maskari

Bushra Al Maskari is a Senior Policy & Strategy Specialist at the Authority for Electricity Regulation. She obtained her Master’s in Public Policy from Oxford University. Bushra also worked briefly with Chatham House, a UK think tank, and contributed to its latest publication on GCC utility tariffs. In this interview, Bushra Al Maskari speaks about renewable energy market in Oman and the policies in this area as formulated by the Authority for Electricity Regulation.

Horizon: Could you explain on pilot projects for small-scale renewable energy generation in Oman?

Bushra: The Authority commissioned a pilot project programme whereby developers were encouraged to provide proposals for small-scale renewable energy projects in rural areas in Oman. One of the projects, in Al Mazyunah, managed to reach commercial close and was the first renewable energy project to be developed on a commercial basis in Oman. Al Mazyunah has a capacity of 300 kW and started generating electricity in 2016. This was followed by a Rural Areas Electrification Policy approved by Authority in 2013, whereby the Rural Areas Electricity Company are obliged to assess the technical and economic feasibility of a renewable energy component to all new electrification projects in Oman. For small-scale projects in urban areas, the Authority initiated the Renewables Rooftops project in 2016. Customers will be able to install renewable energy technologies on their roofs and use as well as sell any excess energy they generate to the national grid. The Authority is in the process of consulting the public and several institutions on draft technical regulations, proposed application process, and potential incentive mechanisms for the renewables rooftops project; and hopes to have the project officially implemented in March 2017.

Horizon: Could you update on the implementation of large-scale solar projects?

Bushra: Following the recommendations of the 2008 Renewables Study, the Public Authority for Electricity and Water undertook a site selection study in 2009 for a large solar project. The study looked at several criteria such as solar irradiance, land levelling requirements, electricity and water infrastructure availability, and others; and identified two sites for large-scale solar projects: Adam and Manah. In 2015, The Government approved a policy that allows immediate implementation of renewable energy projects that are found economically and technically feasible when compared with the international price of gas. The new government policy has allowed the project to move forward, and the Authority along with the Oman Power and Water Procurement Company are currently working on establishing an evaluation mechanism that complies with this policy. This is expected to result in competition documents being released in early 2017. The competition process will be similar to that of existing Independent Power Projects and all updates will be made known to the public.

Horizon: What are the obstacles to establish renewable energy market in the country?

Bushra: While efforts are underway to develop the renewable energy market further in Oman, there remains several barriers that could potentially hinder this development. First, fuel costs, both gas and diesel, are currently subsidized in Oman and do not reflect their true economic value. This puts an unseen obstacle to the use of renewables as their true value can only be captured when all relevant economic factors are part of the assessment. Also, the current subsidized electricity prices are below the real cost of electricity and as such, have an adverse impact on investment in production and installation of renewable energy in the country.

and in the mountains north of Salalah. Other resources were found to have limited potential at the time, but with the recommendation to re-evaluate them in subsequent years. The study concluded with three recommendations. First, immediate implementation of small-scale renewable energy projects, particularly in rural areas. Pilot projects would help demonstrate technical and economic performance of technologies under local conditions, and facilitate the transfer of knowledge and know how to relevant institutions in Oman. Second, policies and funding mechanisms need to be developed to support and encourage the deployment of renewable energy on a larger scale. Lastly, further research and assessments on deploying renewable technologies is recommended.

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