University of Yaounde I

Biotechnology Centre

Masters Program in Food Safety

A Collaborative Project of the CEMAC with EDULINK – LIVE under the ACP-EU sponsorship

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University of Yaounde I - Research and Cooperation Road Map

In the Africa, research is fuelled by two drives: the quest for a fundamental understanding of systems and secondly, the application of these results for Page | 2 development and poverty reduction. By combining the reactive model which is the application of knowledge for improved human wellness and the proactive model which is the use of basic knowledge for improved understanding of how things work, the University of Yaoundé should be able to propose a simple logical framework that forms the basis for training the next generation of its intellectuals. By forging bidirectional intercontinental synergies and cooperation with other scientists and funding bodies worldwide the UYI should be able to place itself at the leader position within the African continent and in the world in certain areas for which its serves as the gold mine. The university's three fold mission entails Teaching, Research and contribution to Development. In the 2015 vision, the university wishes to professionalize, consolidate and modernize on it current operations. Therefore in application of the "Plan directeur de la recherche universitaire" the university envisages six areas along which to develop contained as the intersection between the three approaches and the three missions of the UYI

Table 1. the Road Map areas for investing in Research and Cooperation

	Teaching	Research	Development		
Consolidation	Improvements in teacher welfare and working conditions	Maintenance of the current staff through incentives and improved Researcher welfare	Internal cooperation agreements with industry, stakeholder ministries and local NGOs		
Professionalization Functionalization of the LMD		Understand and apply new and emergent disciplines with developmental links Agreements with internal and external bilateral funders			
Modernization	system	Seek for international cooperation agreements on specific themes			







Introduction to the course

Le Master occupera un créneau différent de celui des autres enseignements. Il s'inscrit dans une perspective de formation pluridisciplinaire, à caractère professionnel aux déjà diplômés de l'université, ingénieurs, vétérinaires, médecins ou autres, susceptibles, à l'issue de la formation, d'occuper des fonctions de contrôle et d'analyse des produits frais ou transformés. Il s'agit donc d'une formation complémentaire d'appoint qui vise les secteurs de contrôle et de maîtrise de la qualité des produits alimentaires sous tous leurs aspects techniques, administratifs, réglementaires, etc....

- L'enseignement proposé aura donc pour objectifs de former des spécialistes de la sécurité sanitaire des aliments. Il comportera quatre séquences :
- disciplines scientifiques et technologiques;
- outils du contrôle de la qualité;
- enseignements spécialisés;
- <u>stage</u> en entreprise (6 mois).

Student Requirements

Prerequisite: This course is intended for the Veterinary Doctor and auxiliary disciplines. Students must have had the following qualifications Veterinary Medicine, Bachelors Veterinary in Engineering Sciences, Biochemistry, Zoology, Microbiology, Chemical Pathology, Toxicology, Biomedical Sciences, Food Technology or Animal Production. Students who have gaps based on the entry discipline will be asked to take complimentary courses where there are lacking, prior to registration or in addition to their first semester courses.

Expected Student Competence

Cette formation devra offrir des ouvertures importantes vers la connaissance de l'entreprise. En revanche, elle doit considérer comme acquises les données fondamentales de la biochimie, de la microbiologie et de la physique et mettre surtout l'accent sur les applications technologiques et professionnelles:

science de l'aliment (relations traitements-composition-qualité);

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- techniques d'analyse et de contrôles de la contamination;
- ingénierie alimentaire;

L'influence des facteurs en amont de la transformation (techniques culturales, facteurs zootechniques et facteurs du milieu) ne sera pas négligée. Le programme d'enseignement fera appel à des conférenciers du secteur industriel, comportera des visites d'entreprises, et la participation à des salons nationaux et internationaux (SIAL...). Les enseignants intervenant dans cette formation proviendront de différents établissements membres du réseau LIVE-Edulink. Le parcours offrira par ailleurs à l'étudiant l'expertise d'auto-emploi par une bonne base de fonctionalité à travers des disciplines para-scientifiques :

- communication, gestion;
- recherche de financement, projets etc

The Main Courses Syllabus

Came from objective of a course on "Inspection of food safety" between the University of Udine and University of Yaounde I. Documents from Food safety courses in France, Britain, Canada, USA and India. Curricula were adapted to the international context for food safety. Requirements were considered for Food Regulation in Latin America, Canada, Asia. Consultation of documents of the Codex Alimentarius and World Organization for Animal Health, International Plant Protection Convention were done. Soft skill courses to professionalize the approach were introduced to provide the MSc with tools to function as an autoemployed individual. Dr ADIOGO Dieudonné: Patho-immunologist and infection Biologists and Head of Department in University of Douala and Yaounde I; Dr ABEGA Clément Roger: Assistant to the Rector for EU programmes and focal point on and Chief of the Courier Service; Prof MBACHAM Wilfred – Public Health Biotechnologist and Coordinator of FP7 – PRD College – an









international programme in Biomedicine and Development training the next generation of African and European Scientists in Poverty and neglected diseases; Dr TANGE Emmanuel, Food safety Expert and provost School of Agric and Food Sciences, Catholic University of Cameroon, Bamenda.

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	Contenu							
Matiere	333							
Foodborne Disease	Course Objectives							
	 Problem of foodborne disease in a global context : Analyse its causes and identify preventative strategies; 							
	 To develop and use a number of key skills. 							
	Content							
	 Foodborne diseases - microbiological, Chemical & physical contamination 							
	 General food hygiene and epidemiology 							
	 The Economics of FB diseases - Burden of foodborne disease 							
	Food borne disease outbreaks – Epidemiologic Intelligence							
	Food safety testing Methods, Instrumentation and Tools							
	Laboratory:							
	Equipment,							
	Human resources							
	• GMOs							
	Course Objectives							
Industrial Biochemistry	Acquire the understand the biochemical basis of toxemia							
bioenemismy	 Obtain skills in the methods of good laboratory and production practices that lead to quality products Acquire Methods for the evaluation of standards 							
	towards QC/QA							
	Content							
	Processes in transformation et fermentations							
	 Industrial Enzymology and applications 							
	Cell Culture and applications							
	Food Toxicology							
	Quality Control and Assurance							
	 Standardisation, certification and manufacturing practises 							
Hazard Analysis								









and Critical Control
Point (HACCP)
Development

Objectives;

 This module aims to enable students to develop competence in Hazard Analysis and Critical Control Point methodology for food safety management.

Content

- Legislative requirements (implementation of the legislation is a problem)
- Risk management in the food industry
- Codex Guidelines
- GMP and ISO certification requirements
- HACCP methodology

Audit and Management

Course Objectives

- To provide candidates with an understanding of the theoretical foundations and practical techniques
- To develop skills necessary to effectively manage and audit HACCP systems.

Content

- Verification and Maintenance
- Performing an Audit
- Legislative compliance
- Project and change management

Epidemiology and Statistical Methods in Food Analysis

: Course Objectives:

 Involves four main topics that include: Epidemiologic Research Methods: introduces concepts of study design, data management and data analysis that are suitable for epidemiologic research Infectious Disease Epidemiology from foods:

Content:

- multidisciplinary framework for understanding the principles of interventions.
- Chronic Disease epidemiology:
- Biomarkers and Epidemiology.
- Molecular methods relevant to biomarkers.

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International Food	Course Objectives	1
Law	This module aims to review the role of	
Law	government/non-government bodies in relation to	
	food legislation internationally and identify the	
	implications for manufacturers, retailers and	
	consumers.	Page 7
	Content	
	Law systems	
	Codex Alimentary Commission	
	Creation of and roles of committees and Regulatory	
	Framework	
	International Food Law and enforcement	
	frameworks	
	Food Codes of Practice and Guidelines	
	 Current issues in food law (critical reviews) 	
	Labelling	
Food Alleray and	Course Objectives	_
Food Allergy and Intolerance	 To develop understanding of the causes, diagnosis 	
inioleidice	and treatment of adverse reactions to foods.	
	 To evaluate the processes involved in food 	
	preparation and food production with respect to	
	their contribution to adverse reactions to foods.	
	Content	
	Definitions of food intolerance and allergy,	
	 Mechanisms of allergic and non-allergic adverse 	
	reactions of foods ingredients	
	 Food intolerance and management allergens 	
	 GMOs and product development 	
	HACCP and Crisis management	
Food Safety	Course Objectives	
Management	To develop an in depth, critical awareness of the	
Managemeni	scientific, technical and social factors relating to an	
	issue of current concern in food safety.	
	 To enable candidates to develop and apply a 	
	range of investigative techniques and present their	
	findings in a range of styles appropriate to the	
	information needs of different groups.	
	Syllabus • Control Methods in Food safety	
	Control Methods in Food safety Data base creation and management	
	Data base creation and management Knowledge management	
	Knowledge management Methods of advanced literature searching	
	Methods of advanced literature searching Types of and writing of investigative reports	
	Types of and writing of investigative reports	_









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Project	Course Objectives;					
Development and	This module aims to provide students with the					
Implementation	opportunity to apply research methodologies in a					
Analysis	specific current area of interest within food safety					
_	management. To develop critical analysis and					
	evaluation skills in the interpretation of the results of					
	a research investigation, which will make a					
	contribution to their particular area of interest. To					
	develop research communication skills, including					
	professional research writing and presentation.					
	Content					
	Implementing a research project proposal and plan					
	Research Project Management					
	Research data Management					
Research Methods	Course Objectives					
in Food Safety	Develop knowledge of research aims and					
,	processes;					
	Critically evaluate research designs;					
	 Critical approach to food safety research literature 					
	Content					
	Quantitative and qualitative research methods					
	The critical evaluation of important theoretical and					
	methodological issues					
	Types of data, sampling, handling, analysis and					
	reporting					
	Integrity - Reliability, validity and trustworthiness					
	Examples drawn from current literature					
	Quality Assurance					
Governance and	Course Objective					
Entrepreneurship	 Develop knowledge of Public Relations issues for 					
	performance Enhancement					
	Support skills for marketing;					
	Skills for setting up own business/Sole Proprietor					
	Content					
	Research Governance;					
	Leadership Skills;					
	Principles of Market surveys					

Fundamentals of entrepreneurship

Principles of business set up

Intellectual Property Rights and Patenting;









Entry Requirement and Employment opportunities

There are three entry requirements for three majors:

Entry Requirement	Options	Employment Opportunities	Page 9
Doctor in Veterinary (DVM)	Verterinary	Food Inspection and Certification	
BSc in Veterinary Engineering Sciences	Inspection & Certification	Management of food safety lab, set up of SME,	
BSc in Biochemistry, Chemical Pathology, Toxicology		Food safety lab, management of nutrition services, creation of diagnostic lab, SME, vet research lab, QC/QA officer in food processing	
BSc in Animal Production, Zoology, life science, Agric technology	Food Safety	Self-employed animal farms, SME	
BSc in Microbiology	Laboratory Science	Management of food safety lab, management of SME, Management of Vet diagnostic lab	
BSc. Food Technology		QC/QA officer in food processing, Management of SME	
BSc. Biomedical Sciences		Safety Lab, SME, Epidemiology Intelligence Service	
LLB in Law, BA in Sociology/Anthropology	Verterinary Public Health	Policy/Regulatory Boards/Market Research Expert; Communication and	

Layout of Work Load

	Week 1	Week 2	Week 3	Week 4	Week 5
Item	Lectures	Personal Work	Tutorials/Complimentary Courses	Practicum	Free
4 Credits	30H	50H	40H	60H	Free











Food Safety - Time Table

Month	Course code	Course Title	Lectures	Alternates	
October	SA401	Foodborne Disease			Page 1
November	SA403	Industrial Biochemistry			
December	SA405	Food Allergy and Intolerance			
January	SA405	Hazard Analysis and Critical Control Point (HACCP) Development			
February	SA407	Research Methods in Food Safety			
		Exams			
March	SA402	Epidemiology and Statistical Methods in Food Analysis			
April	SA404	Audit and Management			
May	SA406	International Food Law			
June	SA408	Food Safety Management			
July	SA410	Project Development and Implementation Analysis			
		August – Exams and Holliday	,		
September	SA412	Governance and Entrepreneurship	Dr. Unknown		









			7/				
	SA501	Inspection and Certification: Agro System and Performance Measurements					
October	SA503	Food Safety laboratory Science : Molecular Detection Methods in Biotechnology	Page	e 11			
	SA505	Veterinary Public Health: Regulatory Bodies - FDA					
	SA511	Inspection and Certification: Information Systems					
November	SA513	Food Safety laboratory Science : Bioinformatics					
	SA515	Veterinary Public Health: Knowledge translations and Policies					
	SA521	Inspection and Certification: Monitoring and Evaluation of the Food Systems					
December	SA523	Food Safety laboratory Science: Epidemiology and Zoonoses -M bovis and B bovis					
	SA525	Veterinary Public Health: Decision Making and Communication					
Jan - March	SA527	Internship/Stage Industriel - No more than 30 pages - Double space - Signature of Internship host - Evaluation sheet of Candidates					
April - Oct	SA502	Mémoire - No more than 50 pages and no less than 30 pags - Full literature review – 30% - Full materials and Methods 20% - Results and perspectives – 30% - Full bibliographic referencing 10% - Annexes – 10%					
Octobe	er	Soutenance					









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Time - 8	9	10	11	12	13	14	15	16	17	18	19	20	
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Week	2 – F	Perso	nnal \	Work	and C	ompl	imen	tay Co	ourse				
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Option	Code	Course	Lecturer	Alternate
Inspection and	SA529	Socio-Anthropology		
Certification:	SA531	Epidemiology		
	SA533	Chemical Pathology		
Food Safety	SA535	Verterinary Science		
laboratory	SA537	Animal Production		
Science	SA529	Social Anthropology		
Veterinary	SA535	Verterinary Science		
Public Health	SA537	Animal Production		
	SA533	Chemical Pathology		

Complimentary Courses			
Socio-Anthropology	 - Habits and culture of the people - Perception and Social conundrums - Land use and economic activities - Hegemonies and Migrations - Knowledge Aptitude & Practices in food production 		
Epidemiology	-Measures of Diseses in Animals -Epidemiologic Surveillance and Intelligence -Methods of Zootechnique Evaluation -Prevalence of Zoonoses -Equity Analysis		
Chemical Pathology	 - Measures of blood borne diseases - Blood biochemistry - Toxicity and food poisoning - Growth hormons and effets on human health - Risk of emergent virus 		
Verterinary Science	 - Illhnesses of small ruminants - Illnesses of Big game - Verterinary Pharmaceutics - Taxonomy - Biomimetics and Zoopharmacognosy 		
Animal Production	 - Animal feed and growth hormones - Project follow up for adulterations and diseases - Creation of farms and ranches - Genetically modified/transgenic animals - Production of Milk and Beef 		











	Specialisation Courses	
Agro System and Performance Measurements	Course Content: - Rotational farming - Urban and Indoor farming - Production monitoring and ISO certification - Quality Assurance	Page 14
Molecular Detection Methods in Biotechnology	 Course Content: Polymerase chain reaction – PCR including Realth Time Isothermal Amplification - LAMP Isochromatographic and rapid tests/ ELISA 	
Regulatory Bodies - FDA	Course Content: - Composition of regulatory bodies - Curriculum for training and decision making prcess - Regulation and Implementation	
Information Systems	 Course Content: Global information database Geographic mapping of disease or production hot spots Use of information systems to guide decision making processes 	
Bioinformatics	Course Content: - Computational biology - Search for data bases - Comparative genomics - Genomic taxonomy	
Knowledge translations and Policies	Course Content: - Meta analysis of published literature and reviews - How to perform Policy Briefs - Communicating Policy Briefs	
Monitoring and Evaluation of Food Systems	Course Content: - Setting project chronograms and - Definition of milestones, outputs and outcomes - Time and project management	
Epidemiology and Zoonoses -M bovis and B bovis	Course Content: - Mycobacterium tuberculosis and the threat of zoonoses - Babesia bovis and the threat of malaria like infection - Virus epidemiologic intelligence	
Decision Making and Communication	Course Content: - Regulation through evidence based systems - Implimentation and law enforcement - Message packaging for different sectors – parliament, ministries, public	











Food Safety Practicuum Reality Check Assignment

General instruction:

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The reality check is divided in assignments that build up from simple collection of existing data to actual data collection. The class will be divided into groups which groups will work in different places. However, we will all use the same data base so that data can be compared and can serve as a basis for the discussion. Baseline data will not always be measured by yourself, but obtained from the local government, institute for demographics/ epidemiology/statistics etc. When you obtain data, always make a note on how valid these data are and how recent (when were they recorded). Much of the data can be entered in the excel file that we will distribute. The lists that we provide for the several topics may not be compete or even appropriate. They are examples and serve as a template for you. You can easily ad rows or columns if you like.

Titles of the assignments

Assignment 01: GPS location of your study site in latitude and longitude

Assignment 02: Shaking hands and traditional greeting styles,

Assignment 03: Basic data on the people,
Assignment 04: Description of rural activities,

Assignment 05: Demographics, Assignment 06: Socioeconomics,

Assignment 07: Epidemiology of food born diseases

Assignment 08: Food providers

Assignment 09: Food Industry Funders
Assignment 10: Preservatives and

Assignment 11: The burden of food poisoning disease (incidence)

Assignment 12: Food preferences and behavior,
Assignment 13: Traditional and other industries,

Assignment 14: Restaurant economics and Sanitation,
Assignment 15: Responsiveness of the food industry

Assignment 16: Qualitative description food services providers,

Assignment 17: Focus Group discussions (FGD)

Assignment 18: Food Industry services versus research,

Assignment 19: Research services versus Food Industry services,

Assignment 20: Research conducted

Assignment 21: Check with the regulatory authorities.







Prerequisites of the Facilitator

Assumptions and background knowledge:

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- The facilitator is expected to have a mastery of the subject area with at least 5 years post
 PhD with teaching experience.
- Given the time allotted The facilitator should explore ways to demonstrate principles
- Each facilitator is to present by way of power point slides
- Each facilitator must select a paper for discussion through group discussions or for further reading
- Each lectures must submit a set of three questions for student evaluation

Prerequisite knowledge of the student

- Each Fellow is expected to have completed an BSc or an MSc in the a related field and to have sufficient knowledge to follow lectures.
- Each Fellow is expected to complete modules that provide them with expected competences in this area of food technology.

Procedures of Lectures

Materials and Procedures

- Projector and laser pointer
- Flip Charts
- Permanent marker pens or white board crayons
- Lecture notes as power point handouts
- A Laptop
- CD roms and Flash/Pen drives









All lectures must seek to:

a) ENGAGE

- Ask the class about notions that they understand or have mastery over
- Then ask each student about their background and level of understanding of soft skills

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- Ask Fellows to stop the class at any point to ask questions
- Let Fellows meet you after class for further discussions

b) EXPLORE

- Divide the class into small groups to study thematic areas for assignments
- Give details of how the group discussions will run or needs to be organized
- Appoint a lead discussant to present after group discussion
- Ask he class to appreciate the soft skill principles and concepts
- Ask the class how they might use these skills

c) EXTEND

- The results of the group thematic discussion need to be used to explore career development
- Let the Fellows plan to use the material to extend organizing their scientific output
- Plan to invite local speakers with the necessary expertise for further discussion or conduct site visit

Ensuring a good group cohesion

- a. The interest and the effectiveness of the lecture are narrowly based on the composition and the participation of the group, indeed it is not enough to put together a certain number of individuals to set up a group. Certain factors will support the cohesion of a group:
- b. Homogeneity of group
- c. Agreement on the goals
- d. Attraction of the membership
- e. Frequency of the interactions









- f. Physical proximity
- g. Existence of an external threat
- h. Leadership
- i. Democracy
- j. Good Communication
- k. Clear distribution of the roles

Maintaining good group dynamics

- a) The group generates energy, it has its dynamics, which set out in two principal functions:
- b) Function of production turned towards the task to be achieved, exchange of ideas, emulation, creativity.
- c) Function of facilitation of the relations inside the group, management of the conflicts and tensions between the members.
- d) **Individual Behaviour:** An individual in a group in lecture remains nevertheless influenced by his characteristic psychology. This is why certain participants will want to be by themselves. The organizer of the lecture has to react precisely in function in each case.

INDIVIDUAL BEHAVIOURS IN A GROUP	ACTIONS OF THE FACILITATOR
 Shy person Shyness is usually due to a sense of inferiorityDoes not talk muchResponds in an embarrassed mannerAlways asking for neighbor's opinion 	Do everything to encourage him/ herAsk him/her simple questions on a subject he masters wellYour friendlinessHelp him in his/her answers if you have to
Reserved person • Listens but doesn't talk muchDoes not intervene unless where necessary(applies also to indifference)	 Request his/her participationSeek his/her opinion on questions asked to the groupRecall certain constructive ideas that he/she can understand apart from the lectureDirect a provoked participation between him/her and a member of the group
Person who talks often • Monopolizes the discussionInterrupts presentationTakes every argument to his/her accountWants that we listen to	 Don't hesitate to interrupt him/her and throw the ball to the other group members by asking their opinion In acute case, ask him/her firmly but with humour, to be quiet









him/her till the end	Never look at him/her when you ask a question to the group	
The opposition ● The person who likes to argue	 Ask him/her questions on which you can then take position of the group Consider some of the reasons for his/her obstinacy. Avoid discussing step by step with him/her during the lecture Emphasize the possible positive side of his/her interventions or a favorable idea coming from him/her 	Page 19
The obstinate • Can blame the success of a lecture	Don't point out to him/her publiclyProfit, if necessary, of his/her interventions to make rapid synthesis (protect him/her from any reaction from the group)	
 The latecomer Stops or brings the group back on an idea Does not follow what comes afterwards 	 Stop summarize the point and bring him/her rapidly to where the rest are If he/she persist promise him/her time after the talk to walk him/her through 	

The Mentorship Program*

1- Introduction

Sometimes students get lost just when they see the PhD light at the end of the tunnel begin to wonder what their career plans really are. Sometimes they just do not wish to see their supervisors again because of the experience they when through sometimes careers must come to an end, they need someone to talk to, someone who can serve as a guide, a sparing partner, a pointer to funding sources and establishing contacts for the candidate, playing the grandfather rather than the father role and therefore - a mentor. If you are to mentor another you are in a way furthering the career of that individual within the social context in which he or she is found, so that they can become more effective in the community. It is a relation between candidate (the mentee) and the advisor (the mentor) that is different from the bench supervisors of the PhD and is expected to be motivational and for both must be a win-win situation to ensure that the tenets of science are passed on through the generations.









Sometimes though the supervisor especially when senior enough may play the role of the mentor as well.

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2- What is Mentoring?

Scientific training is most often a personal, one-on-one relationship between a more experienced scientist and a junior scientist or a scientist-in-the-making. But it can also be between peers, one of whom is entering a new field and another who knows that field well. The trainer is exposed to the trainee's energy, curiosity, and ideas, and the trainee receives the guidance and encouragement necessary for professional development. Mentoring and training relationships commonly form across broad experience gaps -e.g., professor to student, but also can be established between junior and senior students, or between peers or near peers. For example, a graduate student whose background is in biology may take a mentoring role for a graduate student whose background is in mathematics, or a graduate student may become a mentor to an undergraduate who shares his or her scientific interests. Mentors sometimes include those who are officially responsible for the work of junior scientists or students, such as the head of a laboratory or a formal advisor (in some places such formal heads are referred to as mentors no matter how deep their commitment to training a given individual). The depth of a senior scientist's involvement and interest in a trainee's career and work may be limited, especially when there are many people being trained or in cultures where there are strict limits on personal contact between professors and those whom they teach.

However, it is also important to have mentors, advisors, and trainers who are outside the direct line of authority, or even outside the trainee's primary area of interest, because those who are further removed from the student's interest may ask questions that will help the trainee move along better than those who share most of the student's assumptions. Mentors who have some distance —and therefore good perspective— can be especially helpful in providing guidance when formal advising relationships become strained, or when the personal or professional interests of the trainee differ from those of the formal mentor, or when a young person's best









interests are not those of his or her advisor, supervisor, or boss. Perspective becomes even more important as careers advance and ranges of conflicting opportunities come into play.

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3 - Being the Good Mentor

As a Mentor receives the PRD College Fellow, he/she is encouraged to be:

- 1. Accessible: An open door and an approachable attitude.
- 2. **Consistent:** Acting on your stated principles on a regular basis.
- 3. **Empathise:** Personal insight into what the trainee is experiencing.
- 4. **Honest:** Ability to communicate the hard truths about the world "out there" and about the trainee's chances.
- 5. **Open-minded:** Respect for the trainee's individuality and for working styles and career goals different from yours
- Patient: Awareness that people make mistakes and that each person matures at his or her own rate.

Lecture and Exam Guide

- 1. All lectures must be done by power point slides
- 2. The First slide must carry the title of the lecture and name of
- 3. The second slide must always be the plan of lecture
- 4. The third must be the learning objectives
- 5. The Last 3 slides must be
 - a. Take home message or Conclusion
 - b. Reference for consultation books , Internet link etc
 - c. Acknowledgement
- 6. All lecture must be accompanied by 2 or more pdf documents relating to the lecture or tutorials
- 7. All lecture are advised to be made participatory









- 8. All slides made must not contain more that 4 bullet points and be legible from 25m distance
- 9. All slides must contain the UYI Logo and any other
- 10. Model templates are obtainable on demand

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- 11. On Exams All exams will modular and performed on the 4th week of the month. A Continuous Assessment will be conducted in the 3rd week: Exams shall take the following structure:
 - a. Problem solving through synthesis
 - b. Short questions
 - c. Multiple choice