

ANNAMALAI UNIVERSITY
FACULTY OF AGRICULTURE
DEPARTMENT OF AGRICULTURAL ECONOMICS
M.B.A. (AGRI BUSINESS) Degree Programme
(Regular and Part – time)
Rules and Regulations with effect from 2012-2013

1. Short title and commencement

- 1.1. These rules and regulations shall govern the post graduate studies leading to the award of degree of M.B.A. (Agri Business) in the Faculty of Agriculture.
- 1.2 They shall come into force with effect from the academic year 2012 – 2013.

2. Definitions

- 2.1 An “Academic Year” shall consist of two semesters.
- 1.2 .“Semester” means an academic term consisting of 110 working days including final theory examinations.
- 1.3 “Subject” means a unit of instruction to be covered in a semester having specific No., title and credits.
- 1.4 “Credit hour” means, one hour lecture plus two hours of library or home work or two and half hours of laboratory/field practical per week in a semester.
- 1.5 “Grade Point of a subject” means the value obtained by dividing the percentage of marks earned in a subject by 10 and the Grade Point is expressed on a 10 point scale.
- 1.6 “Credit Point” means the grade point multiplied by credit hours.
- 1.7 “Grade Point Average” (GPA) means the quotient of the total credit points obtained by a student in various subjects at the end of each semester, divided by the total credit hours taken by the student in that semester. The grading is done on a 10 point scale and the GPA has to be corrected to two decimals.
- 1.8 “Overall Grade Point Average” (OGPA) means the quotient of cumulative credit points obtained by a student in all the subjects taken from the beginning of the first semester of the year divided by the total credit hours of all the subjects which he/she had completed upto the end of a specified semester and determines the overall performance of a student in all subjects during the period covering more than one semester. The OGPA has to be arrived at the second decimal place.

3. Eligibility for admission

Candidates for admission to the M.B.A. (Agri Business) programme should satisfy the following requirements.

- 3.1. Candidates with the following four year degree programmes from universities recognized by Annamalai University are eligible to apply for M.B.A. (Agri Business) degree programme of the university. B.Sc(Ag.)/B.Sc(Hort.) /B.Sc(Agri.Mark and Coop.)/B.Tech(Hort.)/B.Tech(Ag.Engg.)/B.Tech(Agri.Biotech.)/B.Sc(Forestry)/B.F.Sc/B.Sc(Sericulture)/B.Sc(Home Science)/B.E.(Ag.)/B.V.Sc/B.Sc(Dairy Science)/Any other degree offered by Agriculture/Veterinary/Fisheries universities.
- 3.2. Candidates who have undergone the programme under conventional system should possess not less than a second class Bachelor’s degree. The candidates under 4 point grade systems should possess a minimum **OGPA of 2.5 out of 4.00 and 2.75 out of 4.00 in the subject concerned.** For those under 10 point system a minimum **OGPA of 6.00 out of 10.00 and 6.50 out of 10.00 in the subject concerned** is required. **However, this will not apply to SC/ST candidates for whom a pass in the degree concerned is sufficient.**
- 3.3. An entrance test will be held separately for M.B.A.(Agri Business) Degree programme. Candidates shall be required to be present on the specified date and time for written test and interview at their own expenses.

4. Duration of the programme

4.1. A. Full-Time Programme

The duration for Full- time M.B.A. (Agri Business) programme will be of Two years with four semesters. A student registered for Full- time programme should complete the course within four years from the date of his admission.

4.2. B. Part-Time Programme

The duration for Part- time M.B.A. (Agri Business) programme will be of three years. Part- time students will be permitted to register up to a maximum of 11 credits per semester. A student registered for Part- time M.B.A. (Agri Business) programme should complete the course within five years from the date of his admission.

4.3. Credit and GPA requirements

A student enrolled for the M.B.A. (Agri Business) degree programme to earn eligibility for the degree is required to complete 55 credits as detailed below.

i) Core subjects	22
ii) Electives	8
iii) Supporting subjects	5
iv) Seminar	2
v) Research	10
vi) In plant training	6
vii) Study tour	2
Total	55

The core subjects are mandatory for a student. These subjects should be offered by the Department of Agricultural Economics. The electives are subjects chosen by the students from the elective courses offered by the Department of Agricultural Economics in consultation with Head of the Department and the Advisory Committee, based on their specialization (Marketing, Finance and Human Resource Management). A student has to register for a total of 8.0 credits. The elective courses will be offered in semester with 2 credits. The supporting subjects are also mandatory for a student.

Non- credit compulsory courses: The students will undergo these courses on par with the other M.Sc.(Ag.) programmes.

S.No.	Name of the Course	Department concerned
1.	Basic Concepts In Laboratory Techniques / Audio visual laboratory techniques* (0+1)	Soil science and Agricultural Chemistry Microbiology Plant breeding and Genetics * Agricultural Extension
2.	Technical writing and communication skills (0+1)	Parent Department and English
3.	Intellectual property and its management in agriculture(1+0) e-course	Agricultural Economics

4.	Library and Information services (0+1)	Library Sciences
5.	Disaster Management(1+0) e-course	Agronomy
6.	Agricultural Research Ethics and Methodology/Agricultural research, research ethics and rural development programmes */Research Data Analysis** (0+1)	Parent department * Agricultural Extension **Agricultural Economics

4.4. Minimum Grade point requirement

M.B.A.(Agri Business) student should maintain a minimum Grade Point of 6.00 out of 10 to secure a pass in a subject. In the subjects in which a student fails, he/she has to reappear for the examination to get a pass in that subject. Overall Grade Point Average (OGPA) of 6.50 out of 10 is required to secure a degree.

5. Attendance requirement

5.1. "One hundred per cent attendance is expected of each student. A student, who fails to secure a minimum of 75 per cent of attendance in each subject separately for theory and practicals, shall not be permitted to appear for the final examination in that subject and will be required to repeat the subject when ever offered.

In case of new admission, the attendance will be calculated from the date of joining of the student who are permitted to join late due to administrative reasons. However, for genuine reasons, condonation of attendance deficiency may be considered by the Vice-Chancellor on the recommendation of the Head of the Department and Dean, Faculty of Agriculture on payment of condonation fee prescribed by the University.

5.2 Students absenting from the classes with prior permission of the Head of the Department/ Dean, Faculty of Agriculture on official University business shall be given due consideration in computing attendance.

5.3 In respect of the student who had absented for the Mid-Semester Examination (MSE) on University business with prior permission of the Head of the Department /Dean, Faculty of Agriculture, the makeup MSE should be conducted ordinarily within 15 working days from the date of conduct of the Mid-Semester Examinations.

5.4 The students who absent for Mid Semester Examination in a subject on genuine reasons shall be permitted to write the makeup MSE after payment of Rs. 500/- or the amount prescribed by the University.

6. Advisory Committee

6.1. Each M.B.A.(Agri Business) student shall have an Advisory Committee to guide him/her in carrying out the research programme. The Advisory Committee shall comprise a Major Adviser (Chairman) and two members. Of the two members, one will be from the same Department of Faculty of Agriculture and the other in the related field from the other Departments of Faculty of Agriculture. The Advisory Committee shall be constituted within three weeks from the date of commencement of the first semester.

6.2. Major Adviser (Chairman)

Every student shall have a Major Adviser who will be from his/her major field of studies. The appointment of Major Advisers (Chairman) shall be made by the Head of the Department concerned. The chairman in consultation with the Head of the Department will nominate the other two members. In the event of the Major Adviser being away on other

duty/leave for a period of more than three months, the member of the Advisory Committee from the same Department will officiate as the Major Adviser.

6.3. Guidelines on the duties of the Advisory Committee

- i) Guiding students in drawing the outline of research work
- ii) Guidance throughout the programme of study of the students.
- iii) Evaluation of research and seminar credits.
- iv) Correction and finalization of thesis draft.
- v) Conduct of final Viva-Voce examination.
- vi) The proceedings of the Advisory Committee will be sent to the Head of the Department concerned within 10 working days.
- vii) Periodical review of the Advisory Committee proceedings will be made by the Head of the Department concerned.

7. Programme of study:

7.1 The student's plan for the post-graduate work, drawn up by the Advisory Committee, shall be finalized before the end of the first semester.

7.2 The programme shall be planned by the Advisory Committee taking into account his/her previous academic training and interest.

7.3 Programme of research work

The outline of research work of the student, in the prescribed manner and as approved by the Advisory Committee, shall be forwarded by the Chairman to the Head of the Department Concerned by the end of the first semester.

8 Evaluation of students' performance

8.1 The duration of Mid-Semester Examination (MSE) should be of one hour. The duration of the final theory and final practical examinations shall be three hours each.

8.2 Grading

- i) Every teacher handling a subject shall conduct Mid-Semester Examination (MSE) as per the scheme drawn by Head of the Department Concerned, evaluate and send the marks obtained by the students to the Controller of Examinations through the Head of the Department Concerned within seven working days.
- ii) There will be final examinations separately for theory and practical which will be conducted by the University.
- iii) Each final examination will be evaluated by two examiners (one internal and one external). The practical examination will be conducted and evaluated by two examiners (one internal and one external).
- iv) The distribution of marks will be as indicated below.

Test	Courses with Practical and Theory	Courses without Practical	Courses without Theory
Mid-Semester	20 Theory only	30	30
Final theory	40	70	-
Final practical	40	-	70
Total	100	100	100

The question paper model and distribution of marks for Mid Semester and final theory examinations are as follows.

Mid-Semester

For Subjects with practical (20 marks)

1. Objective type	10 out of 12	(10 x 0.5)	5 marks
2. Definitions / concepts	5 out of 7	(5 x 1)	5 marks
3. Short notes	2 out of 3	(2 x 2 ½)	5 marks
4. Essay type	1 out of 2	(1 x 5)	5 marks

For Subjects without practical (30 marks)

1. Objective type	10 out of 12	(10 x 0.5)	5 marks
2. Definitions / concepts	5 out of 7	(5 x 1)	5 marks
3. Short notes	4 out of 5	(4 x 2 ½)	10 marks
4. Essay type	2 out of 3	(2 x 5)	10 marks

Final Theory

For subjects with practical (40 marks)

1. Definitions	5 out of 7	(5x1)	5 marks
2. Short notes	5 out of 7	(5x2)	10 marks
3. Essay type	Either or type	(5x5)	25 marks

For subjects without practical (70 marks)

1. Definitions	5 out of 7	(5x2)	10 marks
2. Short notes	5 out of 7	(5x4)	20 marks
3. Essay type	Either or type	(5x8)	40 marks

- v) The student should secure a minimum of 60 per cent marks separately in theory and practical and also in aggregate to secure a pass in the subject.
- vi) Each subject shall carry a maximum of 100 marks for purpose of grading. The grading shall be done as grade point, i.e., the percentage of marks earned in a subject is divided by ten. The grade point is expressed on a 10 point scale up to two decimals.
- vii) Students who secure marks below 60per cent in a subject will be awarded 'F' grade. The supplementary examinations for the candidates who fail in a subject or subjects will be held in the subsequent semester.
- viii) Students who did not have the required minimum attendance of 75 per cent will be awarded 'E' grade and has to repeat the subject.

8.3. Non- Credit Compulsory Subject

For Non-Credit Compulsory subjects the evaluation processes will be as that of the regular subjects, however, the marks obtained will not be taken into account to calculate the OGPA.

9.Credit seminar

9.1 Seminar is compulsory for all the students and each student should register and present two seminars of 0+1 credit each. A student can register one seminar in a semester and only after successful completion of the first seminar he/she is permitted to do the second seminar.

9.2 a. The seminar topic should be only from the major field and should not be related to the area of thesis research.

9.2. b. The seminar topics are to be assigned to the students by the Chairman of the Advisory Committee in consultation with the Head of the Department concerned within 2 weeks after the commencement of the semester.

9.3. Under the guidance and supervision of the Chairman of the Advisory Committee, the student will prepare the seminar paper containing not less than 25 typed/printed pages with a minimum number of 50 references covering the recent 10 years time and present the seminar 2 weeks after completion of Mid-Semester Examination in the presence of the Head of the Department, Advisory Committee, staff members and PG students of the Department concerned.

9.4. The circular on the seminars by the post-graduate students shall be sent to other Departments to enable those interested to attend the same.

9.5. The Chairman will monitor the progress of the preparation of the seminar paper and correct the manuscript. The student will submit 2 copies of the corrected manuscript to the Head of the Department Concerned through the Chairman before presentation.

9.6 The student will incorporate suggestions and carry out corrections made during the presentation and resubmit three fair copies to the Head of the Department concerned through the Chairman (one copy each to Dept. Library, Chairman and the student) within 10 days after presentation.

9.7 The performance of the student will be evaluated and Grade Point awarded by the Head of the Department concerned along with Advisory Committee. The Grade Point may be given based on the following norms.

Coverage of literature	40
Presentation	30
Use of audio–visual aids	10
Capacity to participate in the discussion and answer the questions	20
Total	100

10. Term paper / Special assignment

This has to be assigned to the student by the teacher in subject with theory and practicals. Term papers should cover a wide range of topics within the subject limits. The topic should be different from that of the credit seminar. Term papers / special assignments will be evaluated during practical examination.

11. Research work

11.1. The topic of thesis research to be carried out by the student will be assigned by the Chairman of the Advisory Committee in consultation with the Head of the Department concerned. After assigning the topic, each student may be instructed to submit a detailed programme of work to be carried out by him/her during the semester in the prescribed proforma. After scrutiny and approval, a copy of the programme may be given to the student for carrying out the work during the semester in the prescribed proforma. The evaluation of research work done by the student should be based on the approved programme.

11.2. The distribution of research credits will be as follows:

III Semester	0+ 3
IV Semester	0+ 5
	0+ 2 (Thesis Viva-Voce)
Total	0 + 10

11.3 The student has to submit his /her research observation note book to the Major Adviser. The Major Adviser will scrutinize the progress and sign the note book with remarks as frequently as possible. This note book will form the basis for evaluation of research progress.

11.4 Before the end of the semester the Advisory Committee should evaluate the work and award Grade Point depending upon the quality and quantity of work done by him/her with reference to the approved programme during the semester.

11.5 Attendance register must be maintained for the research students by the Chairman while monitoring his/her research programme.

11.6 The procedure for evaluation of research under different situations are explained hereunder.

Situation - 1

The student should complete the research work as prescribed by the Advisory Committee.

Grade Point shall be awarded as evaluated by the Advisory Committee.

The student can be permitted to work for fresh research credits in the following semester.

Situation - 2

- The student who does not satisfy the required 75 per cent attendance shall be awarded grade 'E'.
- The student who could not complete the research work for reasons found satisfactory to the Advisory Committee shall be awarded the grade 'EE'
- The student has to reregister the same block of research credits for which 'E / EE' grade was awarded in the following semester.
- The student should not be allowed to register for fresh (first time) research credits.

Situation – 3

The student who fails to complete the research work after repeating the registration for the second time shall be awarded grade 'EE'.

- In the mark sheet the registration for 'second time' should be mentioned.
- For the registration of research credits for the third time permission has to be obtained from the Dean of the Faculty and permission for further registration for the fourth time has to be obtained from the University.
- Re-registration of further research credits shall be decided by the University based on the recommendation of the Advisory Committee, Head of the Department Concerned.

12. Other regulations.

12.1 The valued answer books of each Mid-Semester Examination shall be returned to the student for his/her information and guidance within seven days from the date of examination.

12.2 The various subjects taken by a student along with the credits and the grade obtained shall be shown on his transcript. Based on the total credits admitted, the final Grade Point Average shall be calculated and given.

12.3 At the end of each semester, the student will be given the mark list.

13. Thesis

13.1. The thesis for his/her Master's degree should be of such a nature as to indicate a student's potentialities for conduct of independent research. The thesis shall be on topic falling within the field of the major subject and shall be the result of the student's own work. A certificate to this effect duly endorsed by the Major Adviser (Chairman) shall accompany the thesis.

13.2. Evaluation of thesis

The students completing the thesis work to the satisfaction of the Advisory Committee should submit two copies of the thesis in paper pack within four weeks from the last working day of the semester.

The students who could not submit the thesis in the final form within four weeks will be awarded 'EE' grade and he/she has to re-register in the next semester. The thesis submitted in partial fulfillment of a Master's degree shall be evaluated by an external examiner. The external examiner shall be a specialist in the student's major field of study from outside Annamalai University and shall be appointed by the University in consultation with the Head of the Department. The external examiner will send the evaluation report separately to the Controller of Examinations. If the report is favourable, Viva-Voce will be arranged by the Head of the Department concerned and conducted by the Advisory Committee, Head of the Department concerned and the external examiner who may preferably be the same who evaluated the thesis. The Head of the Department shall send the recommendations of the examining committee to the Controller of Examinations. On the unanimous recommendation of the committee and with the approval of the University, the degree shall be awarded to the candidate.

13.2.1 In case rejection of the thesis by the external examiner, the Controller of Examinations may on the recommendation of the Head of the Department concerned and Advisory Committee refer the thesis for valuation by a second external examiner chosen by the University. If the second external examiner recommend the thesis for acceptance, Viva-Voce will be conducted.

13.2.2 If the revision of the thesis is recommended for repeating experiments, field trial etc., resubmission must be done by the candidate concerned after a minimum of six months. The revised version should be sent to the examiner who recommended revision.

13.2.3 After the successful completion of thesis Viva-Voce, the student has to submit 4 bound copies of the corrected thesis (one each for Department Library, Faculty Library Chairman and the student), 3 copies of abstract of thesis, 2 copies of the summary of the findings both in Tamil and English (in 10-15 lines) and also in C.D. form.

14. In-plant Training

In plant training is compulsory for all the students and each student should register 0+2 credits each in II & III semesters. The students will be placed in different Agro Business units for a period of 2 weeks.

The students will be evaluated as follows:

Observation note book – 20 marks	} by teacher in charge
Discussion record - 20 marks	
Project report - 40 marks	} by the examiner
Viva voce - 20 marks	

15. Study tour

Study tour is compulsory for all the students and each student should register 0+1 credit in II and III semesters. A short trip of 7-10 days will be arranged with an objective to expose the students to the various business activities of agro industries / firm.

The evaluation for the study tours will be done as follows, by the teachers accompanying the students.

Attendance	- 10 marks	} by the teacher in charge
Management aptitude	- 10 marks	
Tour dairy	- 20 marks	
Tour record	- 30 marks	} by examiners
Viva voce	- 30 marks	

15. Award of Medals

Medal should be awarded only if the student secures at least 8.0 OGPA, clears all courses in first attempt and in the programme having a batch of at least three students.

ANNAMALAI UNIVERSITY
Faculty of Agriculture
Department of Agricultural Economics
M.B.A (Agri Business) - 2012
Distribution of Courses

Core Subjects

S. No.	Course Code	Title	Credit Hours T + P
1.	ABM 611	Principles of Agri Business Management	2+0
2.	ABM 612	Organizational Behaviour	1+0
3.	ABM 613	Managerial Economics	2+0
4.	ABM 614	Production and Material Management	1+1
5.	ABM 615	Research Methodology	0+1
6.	ABM 621	Agricultural Marketing and Export Management	2+0
7.	ABM 622	Human Resource Management	2+0
8.	ABM 623	Managerial Accounting	1+1
9.	ABM 624	Management of Agricultural Project	1+1
10.	ABM 711	Operations Research	1+1
11.	ABM 712	Financial Management	2+0
12.	ABM 721	Agri. Business Environment, Business Law and Policy	2+0
Total			17+5=22

Electives

S. No.	Course Code	Title	Credit Hours
1.	EAM 616	Supply Chain Management	2+0
2.	EAM 617	Management of Food Processing Industries	2+0
3.	EAM 618	Commodity Future Trading	2+0
4.	EAM 625	Sales and Distribution Management in Agri Business	2+0
5.	EAM 626	Management of Agri Clinics and Agri Business Centres	2+0
6.	EAM 627	Agricultural Credit and Micro Financial Institutions	2+0
7.	EAM 713	International Trade and Agri Business	2+0
8.	EAM 714	Entrepreneurship Development	2+0
9.	EAM 715	Insurance and Risk Management in Agri Business	2+0
10.	EAM 722	Food Retail Management	2+0
11.	EAM 723	Communication for Management and Business	2+0
12.	EAM 724	Agri Business Financial Management	2+0
Total			8+0=8

Supporting Subjects

S. No.	Course Code	Title	Credit Hours
1.	SAM 611	Business Statistics	2+1
2.	CAM 621	Computer Applications for Managers	1+1
Total			3+2=5
S. No.	Course Code	Title	Credit Hours
1.	ABM011/021/031	In-Plant Training	0+6
2.	ABM034/041/042	Research	0+10
3.	ABM 022/032	Seminar	0+2
4.	ABM 023/033	Study Tour	0+2
Grand Total			28+27=55
Non Credit Compulsory Subjects			2+4=6

Semester wise Distribution – Full time

S. No.	Course Code	Title	Credit Hours T + P
I Semester			
1.	ABM 611	Principles of Agri Business Management	2+0
2.	ABM 612	Organizational Behaviour	1+0
3.	ABM 613	Managerial Economics	2+0
4.	ABM 614	Production and Material Management	1+1
5.	ABM 615	Research Methodology	0+1
6.	EAM 616,617,618**	Electives	2+0
7.	SAM 611	Business Statistics	2+1
8.	ABM 011	In-Plant Training	0+2
9.	PGS 611*	Forecasting Techniques	0+1
10.	PGS 612*	Research Data Analysis	0+1
		Total	10+5=15
II Semester			
1.	ABM 621	Agricultural Marketing and Export Management	2+0
2.	ABM 622	Human Resource Management	2+0
3.	ABM 623	Managerial Accounting	1+1
4.	ABM 624	Management of Agricultural Projects	1+1
5.	EAM 625,626,627**	Electives	2+0
6.	CAM 621	Computer Applications for Managers	1+1
7.	ABM 021	In-Plant Training	0+2
8.	ABM 022	Seminar	0+1
9.	ABM 023	Study Tour	0+1
10.	PGS 622*	Technical Writing and Communication Skills	0+1
11.	PGS 623*	Intellectual Property and Its Management in Agriculture (e-course)	1+0
		Total	9+7=16
III Semester			
1.	ABM 711	Operations Research	1+1
2.	ABM 712	Financial Management	2+0
3.	EAM 713,714,715**	Electives***	2+0
4.	ABM 031	In-Plant Training	0+2
5.	ABM 032	Seminar	0+1
6.	ABM 033	Study Tour	0+1
7.	ABM 034	Research	0+3
8.	PGS714*	Library and Information Services	0+1
		Total	5+8=13
IV Semester			
1.	ABM 721	Agri. Business Environment, Business Law & Policy	2+0
2.	EAM 722,723,724**	Electives	2+0
3.	ABM 041	Research	0+5
4.	ABM 042	Thesis Viva-voce	0+2
5.	PGS725*	Disaster Management (e-course)	1+0
		Total	4+7=11
		Grand Total	28+27=55

*Non Credit Compulsory Subjects

** Electives (any one) ***Third semester elective course was replaced with value added course(3+0) by reducing one credit for In- plant training in the year 2017-18 in order to maintain total credits.

Semester wise Distribution – Part time

S. No.	Course Code	Title	Credit Hours T + P
I Semester			
1.	ABM 611	Principles of Agri Business Management	2+0
2.	ABM 613	Managerial Economics	2+0
3.	ABM 615	Research Methodology	0+1
4.	SAM 611	Business Statistics	2+1
5.	ABM 611	In-Plant Training	0+2
6.	PGS-611*	Forecasting Techniques	0+1
7.	PGS612*	Research Data Analysis	0+1
		Total	6+4=10
II Semester			
1.	ABM 621	Agricultural Marketing and Export Management	2+0
2.	ABM 623	Managerial Accounting	1+1
3.	EAM 625,626,627**	Electives	2+0
4.	CAM 621	Computer Applications for Managers	1+1
5.	ABM 121	In-Plant Training	0+2
6.	ABM 421	Study Tour	0+1
7.	PGS-622*	Technical Writing and Communication Skills	0+1
8.	PGS623*	Intellectual Property and Its Management in Agriculture (e-course)	1+0
		Total	6+5=11
III Semester			
1.	ABM 711	Operations Research	1+1
2.	ABM 712	Financial Management	2+0
3.	EAM 713,714,715**	Electives	2+0
4.	ABM 131	In-Plant Training	0+2
5.	ABM 331	Seminar	0+1
6.	ABM 431	Study Tour	0+1
7.	PGS714*	Library and Information Services	0+1
		Total	5+5=10
IV Semester			
1.	ABM 622	Human Resource Management	2+0
2.	ABM 624	Management of Agricultural Projects	1+1
3.	ABM 721	Agri. Business Environment, Business Law & Policy	2+0
4.	EAM 722,723,724**	Electives	2+0
5.	ABM 321	Seminar	0+1
6.	PGS725*	Disaster Management (e-course)	0+1
		Total	7+2=9
V Semester			
1.	ABM 612	Organizational Behaviour	1+0
2.	ABM 614	Production and Material Management	1+1
3.	EAM 616,617,618**	Electives	2+0
4.	ABM 231	Research	0+3
		Total	4+4=8
VI Semester			
1.	ABM 231	Research	0+5
2.	ABM 232	Thesis Viva-voce	0+2
		Total	0+7=7
		Grand Total	28+27=55

*Non Credit Compulsory Courses

**Electives (any one)

ABM 611 PRINCIPLES OF AGRI BUSINESS MANAGEMENT (2+0)

Objectives

To make the students understand the basic management concept, theories and the role of management practices in agri business.

Theory

Unit - I Introduction to Agri Business Management

Management - meaning and scope. Nature of management - significance and evolution. Development of management thought - the classical - Neo - classical theories of management - principles of scientific management. Management and administration - agri business - definition, scope, nature and constitution of business. Forms of business organizations - small business - characteristics - management in changing business environment.

Unit - II Management Functions

Management functions - planning - definition and features of planning - importance and steps in planning. Organizing - definition - organizational theory, design. Features of good organizational structure. Staffing - definition, fundamentals of staffing. Directing – definition - principles of directing motivation. Controlling – definition - functions and steps in controlling.

Unit - III Principles of Personnel Management

Personnel management – definition - scope and importance in agri business firms - manpower planning - sources of manpower supply - recruitment and selection - selection process - tests and interview. Training and development - needs and methods. Appraisal - methods of performance appraisal.

Unit - IV Principles of Financial Management

Nature of agri business finance. Capital and credit needs in agri business firms - lending to agri business firms - financial statements. Balance sheet – definition – assets – liabilities - owners equity - functions of balance sheet. Income statement – definition - nature of revenue - nature of expenses - forms and functions of income statement - relation between balance sheet and income statement - analysis of returns. Financial ratio analysis - types of ratios - significance of ratio analysis.

Unit - V Principles of Marketing Management

Marketing management – definition - scope and importance of marketing management. Input marketing firms - types - distribution channels of processing firms - types, size - managerial problems - marketing environment - marketing mix - four P's - marketing promotion - definition - objectives - importance - limitations.

Theory Schedule

1. Management - meaning and scope - nature of management

2. Significance and evolution of management - development of management thought
3. The classical and neo - classical theories of management
4. Principles of scientific management - management and administration.
5. Agri business – definition - scope and characteristics of agri business
6. Nature and constitution of agri business firms
7. Forms of business organizations - small business, characteristics
8. Management in changing business environment
9. Management functions - planning - definition and features of planning
10. Importance and steps in planning - characteristics of a good plan
11. Organizing – definition - organizational theory and design
12. Features of good organizational structure
13. Staffing – definition - fundamentals of staffing
14. Directing – definition - principles of directing, motivation
15. Controlling - definition - functions and steps in controlling
16. Personnel management – definition - scope and importance in agri business firms
17. **Mid Semester Examination**
18. Manpower planning - sources of manpower supply
19. Recruitment and selection - selection process - tests and interview
20. Training and development - needs and methods of training and development
21. Appraisal - methods of performance appraisal
22. Nature of agri business finance
23. Capital and credit needs in agri business firms
24. Lending to agri business firms - financial statement
25. Balance sheet – definition - assets, liabilities - owners equity - functions of balance sheet
26. Income statement – definition - nature of revenue - nature of expenses
27. Forms and functions of income statement - relation between balance sheet and income statement
28. Analysis of returns - financial ratio analysis - types of ratios - signification of ratio analysis
29. Marketing management – definition - scope and importance of marketing management
30. Input marketing firms - types
31. Distribution channels of processing firms - types, size
32. Managerial problems
33. Marketing environment - marketing mix - four P's
34. Marketing promotion - definition, objectives, importance and limitations.

Reference Books

1. Gupta, C.B., 2000, *Management Theory and Practice*, Sultan Chand and Sons, New Delhi.
2. Harold Koontz and Keing Weighhrich, 1997, *Essentials of Management*, McGraw Hill, New Delhi.
3. Prasad, L.M., 1998, *Principles and Practices of Management*, Sultan Chand and Sons, New Delhi.
4. Rao , V.S.B., and P.S Narayana, 1998, *Principle and Practices of Management*, Konark Publishing Pvt. Ltd., New Delhi.
5. Singh, S.K., 2006, *Agricultural Management (Vol. I)*, Mittal Publications, New Delhi.

Objectives

To acquaint the learner with meaning and concepts of management and organizational behaviour.

Theory

Unit - I Organizational Behaviour - Introduction

Nature - scope and significance of organizational behaviour - evolution and historical background of organizational behaviour - models of organizational behaviour - foundations of individual behaviour - diversity.

Unit - II Micro Organizational Behaviour

Micro organizational behaviour - personality, self-concept, self-esteem and self-efficacy; attitudes - perception, power – types structures.

Unit - III Motivation

Motivation - types of motivation. Theories of motivation - applications of motivation - transactional analysis - johari window - self fulfilling prophecy - interpersonal relations - understanding, determinants

Unit - IV Leadership

Developing leadership styles and influence process - leadership theories - types of leaders and effective leader - group dynamics - types of groups - group formation - group decision making - team building.

Unit - V Organizational Culture

Organizational culture or climate - concept – dimensions – ethos - determinants - organizational conflicts – concepts - sources – implications and management - organizational changes – types - resistances to change - role of change agents.

Theory Schedule

1. Nature - Scope and significance of organizational behaviour
2. Evolution and historical background of organizational behaviour - Models of organizational behaviour
3. Foundations of individual behaviour - diversity
4. Micro organizational behaviour - personality, self-concept, self-esteem and self-efficacy
5. Attitudes - Perception, power - types & structures - types of motivation
6. Motivation
7. Theories of motivation
- 8. Mid Semester Examination**
9. Applications of motivation - Transactional analysis
10. Johari window - Self fulfilling prophecy - interpersonal relations - understanding, determinants
11. Developing leadership styles and influence process
12. Leadership theories - types of leaders and effective leader
13. Group dynamics - types of groups, group formation, group decision making
14. Team building
15. Organizational culture or climate
16. Concept - dimensions - ethos, determinants
17. Organizational conflicts - concepts, sources, implications, and management
18. Organizational changes - types, resistances to change - role of change agents

Reference Books

1. Fred Luthans, 1998, *Organizational Behavior*, Tata McGraw Hill, New Delhi
2. John W Newstrom & Keith Davis, 1997, *Human Behaviour at Work*, Tata McGraw Hill, New Delhi
3. Lthans. F, 1998, *Organizational Behaviour*, Tata McGraw Hill Publishing Company, New Delhi.
4. Prasad, L.M., 1995, *Organizational Theory and Behaviour*, Sultan Chand and Sons Educational Publishers, New Delhi.
5. Stephen P Robbins, 2007, *Organizational Behaviour*, Prentice Hall, New Delhi.

ABM 613 MANAGERIAL ECONOMICS (2+0)

Objectives

To equip the students with the basic micro and macro economic concepts and theories with special reference to agri business. Also, to develop analytical skills of the students in solving agri business problems.

Theory

Unit - I Managerial Economics - Introduction

Scope of managerial economics - objectives of the firm and basic economic principles - mathematical concepts used in managerial economics.

Unit - II Demand Analysis

Demand analysis – meaning - types - determinants of demand - demand function - demand elasticity - demand forecasting - techniques.

Unit - III Production, Cost Concepts and Supply Functions

Production - cost and supply analysis - production function – least cost input combination - factor productivities and returns to scale - cost concepts - cost - output relationship - short and long run supply functions.

Unit - IV Pricing of Products

Pricing - determinants of price - pricing under different market structures - pricing of joint products - pricing methods in practice - government policies and pricing.

Unit - V Macroeconomic Concepts related to Agri Business

The national income - circular flow of income – consumption - investment and saving - money - functions - demand and supply - inflation - economic growth - business cycles and business policies - business decisions under uncertainty.

Theory Schedule

1. Scope of managerial economics
2. Objectives of the firm and basic economic principles
3. Mathematical concepts used in managerial economics
4. Demand analysis meaning - types
5. Determinants of demand
6. Demand function
7. Demand elasticity
8. Demand forecasting - techniques
9. Production
10. Cost and supply analysis
11. Production function
12. Least - cost input combination
13. Factor productivities
14. Returns to scale
15. Cost concepts
16. Cost-output relationship
17. **Mid Semester Examination**
18. Short and long run supply functions
19. Pricing determinants of price
20. Pricing under different market structures
21. Pricing under different market structures
22. Pricing of joint products
23. Pricing methods in practice
24. Government policies and pricing
25. The national income
26. Circular flow of income
27. Consumption
28. Investment and saving
29. Money - functions
30. Demand and supply
31. Inflation
32. Economic growth
33. Business cycles and business policies
34. Business decisions under uncertainty

Reference Books

1. Dwivedi D.N., 2002, *Managerial Economics*, Vikash Publication, New Delhi.
2. Gupta G.S., 1997, *Managerial Economics*, Tata McGraw Hill, New Delhi
3. Jhingan, M.L, 2001, *Macro Economic Theory*, Konark Publishers, Pvt. Ltd.,Chennai.
4. Mehtha P.L., 2000, *Managerial Economics - Analysis, Problems and Cases*, Sultan Chand and Sons, New Delhi.
5. Sankaran, 2001, *Business Economics*, Progressive Corporation Pvt. Ltd., Bombay.

Objectives

To expose the learner to the field of production and operations management. The focus will be on imparting knowledge of the basic concepts, tools, and functions of production management.

Theory

Unit - I Introduction – Production Management

Production management – meaning - historical evolution - process planning - plant capacity - product design - make or buy decisions - use of cross over chart for selection processes - plant location – factors – multi-plant location decision.

Unit - II Production Planning

Production planning - types of plan - sales forecasting - economic batch quantity - production control – scheduling - dispatching – routing - process control - flow control of materials – inspection - evaluation - line of balance.

Unit - III Maintenance Management

Maintenance management – objectives – types - maintenance schedule - quality control - purpose - sampling by variables and attributes - work study - methods - purpose of time study - stop watch time study.

Unit - IV Material Management

Nature and scope of material management - determinants of right materials – forecasting - purchasing - value analysis - purchase negotiations - vendor rating - costing and storing of materials.

Optimum time of procurement and techniques – indenting - planning - codification - quality specification and standardization.

.Unit - V Inventory Management

Inventory management - inventory models - control techniques - location of warehouse – stores – procedures - inspection - issues and reorder checking.

Practical

Plant layout – types - factors - visit to plant - exercises on production management - case analysis on production management - exercise on production planning – control - case analysis on production planning – control - exercises on PERT - exercises on CPM - exercises on quality control - exercises on Inventory Management - vendor rating - EOQ - control systems - visit to organizations - presentation of case analysis.

Theory Schedule

1. Production Management – meaning - historical evolution
2. Process planning - plant capacity - product design
3. Make or buy decisions - use of cross over chart for selection processes
4. Plant location – factors - multiplant location decision
5. Production planning - types of plan - sales forecasting - economic batch quantity
6. Production control – scheduling – dispatching – routing - process control - flow control of materials - inspection – evaluation - line of balance
7. Maintenance management – objectives – types - maintenance schedule
8. **Mid Semester Examinations**
9. Quality control - purpose - sampling by variables and attributes - Work study - methods - purpose of time study - stop watch time study
10. Nature and scope of material management
11. Determinants of right materials - forecasting
12. Purchasing - value analysis - purchase negotiations - vendor rating.
13. Costing and storing of materials
14. Optimum time of procurement and techniques
15. Indenting – planning - codification - quality specification and standardization
16. Inventory management - inventory models - control techniques
17. Location of warehouse – stores - procedures – inspection - issues and reorders checking

Practical Schedule

1. Plant layout- types - factors
2. Visit to Plant
3. Exercises on production management
4. Case analysis on production management
5. Exercise on production planning - control
6. Case analysis on production planning - control
7. Exercises on PERT
8. Exercises on CPM
9. Exercises on quality control
10. Exercises on quality control (contd.)
11. Exercises on Inventory Management I - vendor rating
12. Exercises on Inventory Management II - EOQ
13. Exercises on Inventory Management III - Control systems
14. Visit to Organisation
15. Visit to Organisation
- 16.&17. Presentation of case analysis

Reference Books

1. Alan Muhlemann, John Oakland and Keith Lockyer, 2000, *Production and Operations*

Management, Macmillan India Ltd., New Delhi.

2. Chary, S.N, 2001, *Production and Operational Management*, Tata McGraw-Hill Publishing Company Ltd, New Delhi.
3. Gopalakrishnan, P and Sundaram. M, 2002, *Materials Management- An Integrated Approach*, Prentice Hall of India Ltd., New Delhi.
4. Lal, A.B., 2000, *Inventory Models and the Problems of Price Fluctuations*, Shree Publishing House, Bombay.
5. Verma,.M.M, 2001, *Materials Management*, Sultan Chand and Sons Educational Publishers, New Delhi.

ABM 615 RESEARCH METHODOLOGY (0+1)

Objectives

To guide students on research management and project preparation and focus on case studies and methods of analysis applied in agribusiness research.

Practical

Problem identification - selection of research problem - concept of researchable problem - problem solving approach in research management - hypotheses development and its testing - literature collection. Sources of data - data collection - data processing and analysis - interview schedule - sampling methods - scaling techniques. Project identification - project proposal - project analysis - writing - interpretation. Graphical presentation - case study methods and types - case approach and methods of analysis - basic statistics used in research methodology.

Practical Schedule

1. Problem identification
2. Selection of research problem
3. Concept of researchable problem
4. Problem solving approach in research management
5. Hypotheses development and its testing
6. Literature collection
7. Sources of data
8. Data collection
9. Data processing and analysis
10. Interview schedule
11. Sampling methods
12. Scaling techniques
13. Project identification
14. Project proposal
15. Project analysis - writing and interpretation - graphical presentation
16. Case study methods and types - case approach and methods of analysis
17. Basic statistics used in research methodology

Reference Books

1. Arya, P.P., 2002, *Research Methodology in Management - Theory and Case Studies*, Deep and Deep Publication PVT .Ltd, New Delhi.
2. Dhondyal, S.P., 1997, *Research Methodology in Social Sciences and Elements of Thesis Writing*, Amman Publishing House, New Delhi.
3. Kothari, C.R., 2003, *Research Methodology - Methods and Techniques*, Wiley Eastern Ltd., New Delhi.
4. Singh, Arun Kumar, 1993, *Tests, Measurements and Research Methods in Behavioural Sciences*, Tata McGraw Hill Publishing Co. Ltd., New Delhi.
5. Yin, R.K., 2000, *Case Study Research ,Design and Methods*, Sage Publications, New Delhi.

ABM 621 AGRICULTURAL MARKETING AND EXPORT MANAGEMENT (2+0)

Objectives

The objective of this course is to make the students to understand the basic concepts in agricultural input and output marketing, market promotion strategies and policies governing agricultural marketing.

Theory

Unit - I Marketing Management - Basic Concepts

Nature and scope of marketing management - distinguishing characteristics of marketing management in agri business. Marketing objectives, strategies - decisions and programmes. Business strategic planning - business mission and environment analysis. Managing the marketing process and marketing planning - analyzing market opportunities - selecting target markets and positioning.

Unit - II Marketing and Pricing Strategies

Marketing strategies - analyzing industries and competitors - estimating the competitors' reaction - designing the competitive intelligence system. Measuring and forecasting market demand. Estimating sales market potential and market shares. Designing pricing strategies and programmes - pricing objective - analyzing competitors' costs - pricing objective - analyzing competitors' costs - prices and offers - reactions to price changes by customers and competitors.

Unit - III Marketing Research

Marketing intelligence and marketing research system - analyzing the marketing environment, consumer markets and consumer behaviour - market measurement and segmentation. Selecting and managing marketing channels - design evaluation and motivating channel members. Managing the sales force – objectives - strategy and evaluation. Advertising and sales promotion policies - factors, promotion mix, advertising budget.

Unit - IV Agricultural Input Marketing

Special features of agricultural input marketing - market environment - rural markets. Company's marketing organization - farmers' buying behaviour. Market segmentation for agricultural inputs and selection of target markets. Developing new products. Agricultural input distribution management - marketing promotion – mix advertising and sales promotion - public relations. Designing and managing sales force - agricultural input marketing information system and marketing research. Marketing logistics - nature and importance - goals of logistics systems - major logistics functions - integrated logistics management. Inter linkage between production, marketing and processing - contract farming - concept - types of contracts - contract farming arrangements - pros and cons of contract farming - problems in contract forming - future of contract farming.

Unit - V Export Management

Introduction and scope – basic concepts – foreign exchange market – transactions – terms of trade – international trade agreements – WTO and their role in promotion of trade – export and import policies of India – export promotion organization – export promotion zone – government policy on agricultural trade – role of EXIM bank - commercial banks in foreign trade – export procedure - laws.

Theory Schedule

1. Nature and scope of marketing management - distinguishing characteristics of marketing management in agri business
2. Marketing objectives – strategies - decisions and programmes. Business strategic planning
3. Business mission and environment analysis
4. Managing the marketing process and marketing planning
5. Analyzing market opportunities – selecting target markets and positioning
6. Marketing strategies. analyzing industries and competitors
7. Estimating the competitors' reaction
8. Designing the competitive intelligence system
9. Measuring and forecasting market demand
10. Estimating sales market potential and market shares
11. Designing pricing strategies and programmes
12. Pricing objective, analyzing competitors' costs, pricing objective
13. Analyzing competitors' costs, - prices and offers, reactions to price changes by customers and competitors
14. Marketing intelligence and marketing research system
15. Analysing the marketing environment - consumer markets and consumer behaviour
16. Market measurement and segmentation
17. **Mid Semester Examination**
18. Selecting and managing marketing channels - design evaluation and motivating channel members
19. Managing the sales force
20. Objectives, strategy and evaluation.
21. Advertising and sales promotion policies – factors - promotion mix - advertising budget - Special features of agricultural input marketing
22. Market environment rural markets
23. Company's marketing organization - farmers' buying behaviour
24. Market segmentation for agricultural inputs and selection of target markets. Developing new products. Agricultural input distribution management
25. Marketing promotion, mix - advertising and sales promotion - public relations
26. Designing and managing sales force
27. Agricultural input marketing information system and marketing research.
28. Marketing logistics - nature and importance - goals of logistics systems - major logistics functions - integrated logistics management.
29. Interlink age between production - marketing and processing - contract farming
30. Concept - types of contracts - contract farming arrangements - pros and cons of contract farming - problems in contract forming - future of contract farming
31. Introduction and scope - basic concepts - foreign exchange market - transactions – terms of trade
32. International trade agreements - WTO and their role in promotion of trade – export and import policies of India - export promotion organization
33. Export promotion zone – government policy on agricultural trade - EXIM Bank.
34. Export procedure - laws

Reference Books

1. Gupta, C.B., and Rajan Nair, 2004, *Marketing Management*, Sultan Chand and Sons, New Delhi.
2. Francis Cherunilam, 2006, *International Trade and Export Management*, Himalaya Publishing House, Mumbai.
3. Jhingam, J.L., 2002, *International Economics*, Vrinda Publications, New Delhi.
4. Varshney, R.L., and Bhattacharya, 2005, *International Marketing Management*, Sultan Chand and Sons, New Delhi.
5. Varsshney, R. L., and S.L. Gupta, 2005, *Marketing Management*, Sultan Chand and Sons, New Delhi.

ABM 622 HUMAN RESOURCE MANAGEMENT (2+0)

Objectives

To make the students understand the concept of human resource management for agri managers and its application in agri business.

Theory

Unit - I Human Resource Management in Agri Business

Introduction - Human Resource Management (HRM) - functions of HRM for agricultural managers, viz. – planning - recruitment and selection – motivation - employee evaluation - industrial relations - employee services and welfare and compensation management including incentive plans and rewards management.

Unit - II Human Resources Planning

Human resource planning - recruitment and selection - human resource planning – meaning - need and importance - objectives - problems - process - responsibility - meaning - factors influencing recruitment - recruitment policy - problems in recruitment - organization for recruitment - sources of recruitment - recruitment practices in India. Selection - meaning - factors affecting selection decisions - selection policy - steps in selection - techniques of selection – placement - meaning and principles - placement policy - induction - meaning and objective.

Unit - III Job Analysis

Job analysis – description – evaluation – design - purpose - uses - contents - steps in job analysis - techniques of job analysis - job description - purpose - contents - uses - limitations - guidelines for job description - job specifications - job evaluation - meaning - objective - procedure - uses - limitations - job evaluation - essentials of job evaluation - job design - meaning - approaches - guidelines - techniques - job simplifications - job enlargement - job rotation - job enrichment.

Unit - IV Management Development Concepts for Agri Managers

Development programmes - essentials of management development programmes. Stages of business growth - learning how to read numbers and ratios, key financial reports - budgeting and cost control - change management - managing and leading change - managing the resistance - entrepreneurial change management - change agents and change entrepreneurs - scenario planning. Strategic planning and decision making.

Unit - V Organization Performance Management

Organization development and performance management in agro industries - organization environment in agriculture related fields - action research and survey feed back - OD intervention strategies at individual, group and organizational levels. Performance appraisal Vs performance management - developing appraisal programmes - performance appraisal tools and techniques - evaluation methods - improving performance. HR audits for recruitment and selection - training and development - performance appraisal - measures used in HRM audits - analysis and utilization of audit findings - HRM systems - human resources information systems - pay roll systems - time and labour management systems - benefits administration systems.

Theory Schedule

1. Introduction of human resource management functions
2. Planning - recruitment and selection
3. Motivation - employee evaluation
4. Employee services and welfare and compensation management including incentive plans and rewards management
5. Human resource planning - recruitment and selection
6. Human resource planning – meaning - need and importance – objectives - problems
7. Process - responsibility - meaning - factors influencing recruitment
8. Recruitment policy - problems in recruitment
9. Organization for recruitment - sources of recruitment - recruitment practices in India.
10. Selection - meaning - factors affecting selection decisions
11. Selection policy - steps in selection - techniques of selection
12. Placement - meaning and principles - placement policy - induction - meaning and objective.
13. Job analysis – description – evaluation - design
14. Job analysis - meaning of job and job analysis - purpose - uses - contents
15. Steps in job analysis - techniques of job analysis.
16. Job description - purpose - contents - uses - limitations - guidelines for job description
- 17. Mid Semester Examination**
18. Job specifications - job evaluation – meaning - objective – procedure - uses - limitations
19. Job evaluation - essentials of job evaluation - job design - meaning - approaches - guidelines and techniques
20. Job simplifications - job enlargement - job rotation and job enrichment.
21. Development programmes - essentials of management development programmes.
22. Stages of business growth - learning how to read numbers and ratios
23. Key financial reports - budgeting and cost control
24. Change management - managing and leading change - managing the resistance
25. Entrepreneurial change management - change agents and change entrepreneurs - scenario planning.
26. Strategic planning and decision making.
27. Organization development and performance management in agro industries
28. Organization structure and design - organizational culture
29. Nature of organizational development in agro industries and rural development organizations
30. Action research and survey feed back
31. Performance appraisal tools and techniques - evaluation methods - improving performance
32. HR audits for recruitment and selection - training and development - performance appraisal - measures used in HRM audits
33. Analysis and utilization of audit findings - HRM Systems
34. Human resources information systems - pay roll systems - time and labour management systems.

Reference Books

1. Ian Beard Well and Len Holden, 1996, *Human Resources Management – A Contemporary Perspectives*, MacMillan Publishing House, New Delhi.
2. Lallan Prasad and A.M. Banerjee, 2001, *Management of Human Resources*, Sterling Publishing Pvt Ltd., New Delhi.
3. Mamoria .C.B., and S.V.Gankar, 2002, *A Text Book of Human Resource Management*, Himalaya Publishing House, Mumbai.
4. Sharma S.N., 2002, *Human Resource Management*, Mittal Publications, New Delhi.
5. Venkataraman, C.S. and B.K. Srivastava, 1991, *Personal Management and Human Resources*, Tata McGraw Hill, New Delhi.

ABM 623 MANAGERIAL ACCOUNTING (1+1)

Objectives

The objective of this course is to expose the learner to the concept and methods of management accounting. Focus will be on understanding techniques, uses and applications of management accounting.

Theory

Unit - I Financial Accounting

Financial Accounting – meaning – need - concepts and conventions - branches of accounting - internal and external users of accounting - advantages and limitations of financial accounting - accounting standards.

Unit - II Journal Entry

The double entry system - its meaning and scope - the journal - cash book – ledger - trial balance - trading account - profit and loss account - balance sheet - entries and adjustments of different heads in different books and accounts. Introduction of company accounts.

Unit - III Managing Accounting

Managing accounting - meaning – functions – scope – utility - limitations and tools of management accounting - analysis of financial statements – ratios - comparative and common size statements - cash flow and funds flow analysis - management audit and financial.

Unit - IV Cost Accounting

Cost accounting – nature - course objective - significance of cost accounting - classification of cost - costing for material, labour, and overheads - marginal costing and cost volume profit analysis - its significance - uses and limitations - standard costing – its meaning - uses and limitations - determination of standard cost - variance analysis – material - labour and overhead.

Unit - V Budgeting

Responsibility accounting - its meaning and significance – cost - profit and investment centers - accounting for price level changes – concepts - CPP and CCA methods. Budget and budgetary control - its meaning - uses and limitations - budgeting and profit planning - different types of budgets and their preparations - sales budget - purchase budget - production budget - cash budget – flexible budget - master budget - zero based budgeting.

Practical

Preparation of journal – ledger – day book - preparation of balance sheet - financial ratios analysis - income statement - depreciation method - comparative statement - trend analysis - percentage analysis - standard costing - variance analysis - break-even analysis - analysis of case studies - cash budget analysis - port folio management - investment analysis - capital market operations analysis - case studies.

Theory Schedule

1. Financial accounting – meaning - need
2. Concepts and conventions - branches of accounting - internal and external users of accounting
3. Advantages and limitations of financial accounting - accounting standards
4. The double entry system - its meaning and scope - the journal - cash book - ledger
5. Trial balance - trading account - profit and loss account - balance sheet
6. Entries and adjustments of different heads in different books and accounts
7. Introduction of company accounts - managing accounting-meaning – functions - scope – utility
8. **Mid Semester Examinations**
9. Limitations and tools of management accounting - analysis of financial statements
10. Ratios - comparative and common size statements - cash flow analysis - funds flow analysis - Management audit and financial
11. Cost accounting – nature - course objective - significance of cost accounting - classification of cost - costing for material - labour, and overheads
12. Marginal costing and cost volume profit analysis - its significance - uses and limitations
13. Standard costing – its meaning, uses and limitations - determination of standard cost, variance analysis - material, labour and overhead.
14. Responsibility accounting - its meaning and significance - cost, profit and investment centers - Accounting for price level changes
15. Concepts - CPP and CCA Methods - budget and budgetary control- its meaning, uses and limitations
16. Budgeting and profit planning - different types of budgets and their preparations
17. Sales budget - purchase budget - production budget - cash budget – flexible budget - master budget - zero based budgeting

Practical Schedule

1. Preparation of journal – ledger – day book
2. Preparation of balance sheet
3. Financial ratios analysis
4. Income statement
5. Depreciation method
6. Comparative statement
7. Trend Analysis
8. Percentage analysis
9. Standard costing
10. Variance analysis
11. Break-even analysis
12. Analysis of case studies
13. Cash budget analysis
14. Port folio management
15. Investment analysis
16. Capital market operations analysis
17. Case studies

Reference Books

1. Chandra Prasanna, 2001, *Financial Management - Theory and Practice*, Tata Mc Graw Hill Publishing Company Ltd., New Delhi
2. Kuchhal, S.C. 2000, *Financial Management*, Chaitanya Publishing House, Allahabad.

3. Maheswari, S.N, 2000, *Financial Management: Principles and Practice*, Sultan Chand & Sons, Educational Publishers, New Delhi.
4. Pandey, I.M, 2002, *Financial Management*, Vikas Publishing House Pvt. Ltd., New Delhi,
5. Srinivasan.N.P., 1990, *Management Accounting*, Sterling Publications Pvt. Ltd., New Delhi.

ABM 624 MANAGEMENT OF AGRICULTURAL PROJECTS (1+1)

Objectives

The objective of this course is to provide the students a thorough understanding on agricultural project selection, formulation, financial feasibility analysis, monitoring and evaluation techniques with special reference to agri business sector.

Theory

Unit - I Agricultural Projects - Introduction

Project - definition - agricultural projects - project preparation and analysis - project cycle – identification – formulation – appraisal - implementation and evaluation criteria for selection of agricultural projects.

Unit - II Project Identification and Formulation

Project identification - entrepreneurs area of interest - background, land, building, water, investment. Sources of projects - resources - own and institutional. Enterprise - project cost, break even point, infrastructure, machinery, power, water, manpower requirement. Procedures for preparation of project proposal on crops, dairy, poultry, horticulture crops, forest, fisheries - data requirements and their format.

Unit - III Project Appraisal

Project appraisal - meaning and scope - types of project appraisal - technical, commercial financial, economic and management appraisal - methodological issues in financial and economic evaluation of projects - measuring intangible cost and benefits - social cost and benefits analysis - choice among mutually exclusive projects.

Unit - IV Project Monitoring and Evaluation

Methods of project monitoring and evaluation. Cash flow analysis and discounting procedures - use of decision criteria NPV, BCR, pay back period and IRR in decision making - network techniques - PERT, CPM and crash programme methods - SWOT techniques - analyzing risk in agricultural projects - sensitivity analysis - decision tree analysis - Environment Impact Assessment (EIA).

Unit - V Project Management

Project management - project ranking - preparation of case studies - review of world bank aided projects - planning and preparation of macro level projects - irrigation, power, agricultural credit, input supply, cropping systems, animal husbandry, plantations, forestry, fisheries and agro-processing units.

Practical

Developing skills in identification of agricultural development projects – formulation of projects – appraisal of projects using undiscounted and discounted techniques - review of world bank aided projects – market feasibility of the projects - use of sensitivity analysis – selection methods among mutually exclusive projects – repayment methods in projects - discussion of agricultural development project - case studies – social cost benefit analysis – developing network techniques for project management – use of management tools in project monitoring – analyzing risk in projects – project evaluation - project ranking – macro level agricultural development projects - agro processing projects – project presentation.

Theory Schedule

1. Project - agricultural projects - basic concepts.
2. Projects preparation and analysis - project cycle
3. Identification of project - sources of projects - resources- own and institutional
4. Enterprise - project cost, BEP, infrastructure requirement, machinery, power, water, manpower required
5. Procedures for preparation of project proposal - data requirements and their format.
6. Project appraisal - methodological issues in financial and economic evaluation of projects
7. Measuring intangible cost and benefits - Social cost and benefits analysis
8. **Mid Semester Examination**
9. Methods of project monitoring and evaluation.
10. Cash flow analysis.- Discounting procedures
11. Use of decision criteria NPV, BCR, Pay back period and IRR in decision making
12. Network techniques – PERT- CPM and crash programme methods
13. SWOT techniques - Analyzing risk in agricultural projects
14. Sensitivity analysis - Decision tree analysis
15. Environment Impact Assessment (EIA)
16. Project management - project ranking - review of world bank aided projects
17. Planning and preparation of macro level projects

Practical Schedule

1. Developing skills in identification of agricultural development projects
2. Formulation of projects
3. Appraisal of project using undiscounted and discounted techniques
4. Review of world bank aided projects
5. Market feasibility of the projects
6. Use of sensitivity analysis – selection methods among mutually exclusive projects
7. Repayment methods in projects
8. Discussion of agricultural development project - case studies
9. Social cost benefit analysis
10. Developing network techniques for project management
11. Use of management tools in project monitoring
12. Analyzing risk in projects
13. Project evaluation
14. Project ranking
15. Macro level agricultural development projects
16. Agro processing projects
17. Project presentation

Reference Books

1. Chandra, Prasanna, 1995, *Projects: Preparation, Appraisal, Budgeting and Implementation*, Tata Mc -Graw Hill Publications, New Delhi.
2. Gopal Krishan, P. and K. Nagarajan, 2005, *Project Management*, New Age, Publishing, New Delhi.
3. Goel, B.B., 1989, *Project Management*, Deep and Deep Publications, New Delhi.
4. Gittinger, Price J. 1982, *Economic Analysis of Agricultural Projects*, The John Hopkins University Press, London.
5. Ramamoorthy, V.E., 2005, *Textbook of Project Management*, Macmillan, New Delhi.

ABM 711 OPERATIONS RESEARCH (1+1)

Objectives

The objective of this course is to acquaint the learner with the applications of some important operations research techniques. Focus will be on understanding the use of these techniques in solving business problems.

Theory

Unit - I Linear Programming

Linear programming – objective - assumptions - formulation of linear programming problems - graphical method - simplex method.

Unit - II Transportation and Assignment Problem

Transportation problem – formulation – initial basics feasible solution – degeneracy in transportation problem. Assignment problem – formulation algorithm – routing problems – sequencing problems.

Unit - III Waiting Line Models

Waiting line problem - characteristics of a waiting - line system – single - channel model – multiple - channel model - constant - service time model - finite population model - sequencing and replacement models.

Unit - IV Decision Making

Decision making under risk and uncertainties - decision problem - maximax criterion - maximin criterion - minimax regret criterion - laplace criterion - pay off tables - decision trees - expected value of perfect information.

Unit - V Game Theory

Game theory - two - person zero-sum game – simulation - network analysis – PERT & CPM.

Practical

Linear programming problems - formulation - graphical solution - simplex method - artificial variable technique - problem of degeneracy - concept of duality - formulation of primal - dual problems - dual simplex method - revised simplex method. Transportation problem - formulation - initial basic feasible solution and optimal solution - degeneracy in transportation problem. Assignment problem - routing problems - sequencing problems - waiting line problem – single - channel model - multiple-channel model – constant - service time model - finite population model - sequencing and replacement models - game theory - two person zero sum games - problem solving in game theory using saddle points and dominance property. Net work problems - Critical Path Method (CPM) - Project Evaluation Review Technique (PERT) - time calculations.

Theory Schedule

1. Linear programming problem – formulation - graphical solution
2. Simplex method - computational procedure
3. Artificial variable technique, problem of degeneracy - concept of duality
4. Formulation of primal – dual - dual simplex method
5. Revised simplex method - bound variable
6. Transportation problem – formulation - initial basic feasible solution - optimal solution degeneracy in transportation problem
7. Assignment problem - formulation – algorithm - routing problems - sequencing problems
8. **Mid Semester Examination**
9. Waiting Line Problem - characteristics of a waiting line system, single-channel model – multiple-channel model
10. Constant - service time model - finite population model
11. Sequencing and replacement models
12. Decision making under risk and uncertainties - decision problem - maximax criterion - maximin criterion
13. Minimax regret criterion - laplace criterion - pay off tables - decision trees - expected value of perfect Information
14. Game theory - introduction, two person zero sum games
15. Saddle points - graphical method - dominance property
16. Net work problems - basic components - rules
17. Critical Path Method (CPM), Project Evaluation Review Technique (PERT), time calculations in net work problems

Practical Schedule

1. Linear programming problems - formulation
2. Graphical solution - simplex method
3. Artificial variable technique - problem of degeneracy
4. Concept of duality - formulation of primal - dual problems
5. Dual simplex method - revised simplex method.
6. Transportation problem - formulation
7. Initial basic feasible solution and optimal solution
8. Degeneracy in transportation problem.
9. Assignment problem
10. Routing problems - sequencing problems
11. Waiting line problem - single-channel model - multiple-channel model
12. Constant - service time model - finite population model
13. Sequencing and replacement models
14. Game theory - two person zero sum games
15. Problem solving in game theory using saddle points and dominance property
16. Net work problems - Critical Path Method (CPM)
17. Project Evaluation Review Technique (PERT) - time calculations

Reference Books

1. Gupta, P.K. and D.S. Hira, 2004, *Operations Research*, Sultan Chand and Sons, New Delhi.
2. Kanji Swarup, P.K. Guta and Man Mohan, 1999, *Operations Research*, Sultan Chand and Sons, New Delhi.
3. Taha, H.A., 1982, *Operations Research - An Introduction*, Macmillan, India Ltd, New Delhi.
4. Vohra N.D., 2006, *Quantitative Techniques in Management*, Mc Graw Hill, New Delhi.
5. Wagner H.M., 2005, *Principles of Operations Research*, Prentice Hall, New Delhi.

ABM 712 FINANCIAL MANAGEMENT (2+0)

Objectives

The course aims to make students proficient in concepts and techniques of financial management. Focus will be on developing understanding of the application of financial and investment decisions.

Theory

Unit - I Introduction to Financial Management

Introduction to financial management, Its meaning and functions - interface of financial management with other functional areas of a business. Financial statements and analysis - proforma balance sheet and income statements, ratio, time series, common size and Du-Pont analysis.

Unit - II Capital Structure

Capital Structure - determinants of size and composition of capital structure, capital structure theories - long term financing and cost of capital.

Unit - III Capital Management

Working capital management - determinants of size and composition of working capital - cash and receivables management - working capital management theories - financing of working capital.

Unit - IV Financial planning and Forecasting

Financial planning and forecasting - financial planning for mergers & acquisition - capital budgeting - undiscounted and discounted cash flow methods of investment appraisal - hybrid finance and lease finance.

Unit - V Business Financing System

Business financing system in India - money and capital markets - regional and all India financial institutions - venture capital financing and its stages - micro finance and international financial management.

Theory schedule

1. Introduction to financial management
2. Its meaning and functions
3. Interface of financial management with other functional areas of a business
4. Financial statements and analysis
5. Proforma balance sheet
6. Income statements
7. Ratio analysis
8. Time series, common size
9. Du-Pont analysis
10. Capital structure
11. Determinants of size and composition of capital structure
12. Capital structure theories
13. Long term financing
14. Cost of capital
15. Working capital management
16. Determinants of size and composition of working capital
17. **Mid Semester Examinations**
18. Cash management
19. Receivables management
20. Working capital management theories
21. Financing of working capital
22. Forecasting
23. Financial planning for mergers & acquisition
24. Capital budgeting
25. Undiscounted cash flow methods of investment appraisal
26. Discounted cash flow methods of investment appraisal
27. Hybrid finance and lease finance
28. Business financing system in India
29. Money markets
30. Capital markets
31. Regional and all India financial institutions
32. Venture capital financing and its stages
33. Micro finance
34. International financial management

Reference Books

1. Chandra, P. 2000, *Financial Management*, Tata McGraw Hill, New Delhi
2. Khan, M.Y. & P.K. Jain 2004 *Financial Management, Text, Problems and Cases*, Tata McGraw Hill, New Delhi
3. Pandey, I.M., 1997, *Financial Management*. Vikas Publishing., New Delhi.
4. Ramachandran, N., & R.K., Kakani, 2005, *Financial Accounting for Management*, Tata McGraw Hill, New Delhi.
5. Van Horne, J.C., 1997, *Financial Management and Policy*. Prentice Hall of India, New Delhi.

ABM 721 AGRI BUSINESS ENVIRONMENT, BUSINESS LAW AND POLICY (2+0)

Objectives

To expose learners to the environment in which the agri-business is conducted and various ethical issues and laws affecting business. Focus will be on understanding micro and macro environmental forces and their impact on agri-business, provisions of various business laws and ethical practices to conduct the business properly.

Theory

Unit - I Agri Business Environment

Role of agriculture in Indian economy - problems and policy changes relating to farm supplies - farm production - agro processing - agricultural marketing - agricultural finance in the country.

Unit - II Agri Business Sector

Structure of agriculture - linkages among sub-sectors of the agribusiness sector - economic reforms and Indian agriculture - impact of liberalization, privatization and globalization on agri business sector.

Unit - III Emerging Trends

Emerging trends in production - processing - marketing and exports - policy controls and regulations relating to the industrial sector with specific reference to agro-industries – agri business policies – concept and formulation – new dimensions in agri business environment and policy – public distribution systems and other policies.

Unit - IV Introduction to Business Law

Introduction to Indian legal system - The Indian Contract Act-1872 – Contract - meaning - nature - significance - types of contract - essentials of a valid contract - acceptance - capacity to contract - free consent - performance of contract – special contract.

Unit - V Legal Acts

Companies Act-1956 incorporation – sale of goods act - commencement of business - types of companies – management - winding of companies - negotiable instruments act essential commodities act - APMC act - Consumer protection act - RTI Act - MRTP act - major provisions and implications. Factory act - labour laws - Industrial dispute act – law of insurance

Theory Schedule

1. Role of agriculture in Indian economy
2. Problems and policy changes relating to farm supplies
3. Problems and policy changes relating to farm production
4. Problems and policy changes relating to agro processing
5. Problems and policy changes relating to agricultural marketing
6. Problems and policy changes relating to agricultural finance
7. Structure of agriculture - linkages among sub-sectors of the Agribusiness sector
8. Economic reforms and Indian agriculture
9. Impact of liberalization, privatization and globalization on agri business sector.
10. Emerging trends in production, processing, marketing and exports
11. Policy controls and regulations relating to the industrial sector with specific reference to agro - Industries
12. Agri business policies
13. Concept and formulation
14. New dimensions in agri business environment and policy
15. Public distribution systems and other policies
16. Introduction to Indian legal system
17. **Mid Semester Examination**
18. The Indian Contract Act-1872 Contract – meaning - nature - significance
19. Types of contract
20. Essentials of a valid contract
21. Capacity to contract
22. Free consent - performance of contract
23. Special contract
24. Companies Act-1956 incorporation – sale of goods act
25. Companies Act-1956 commencement of business
26. Types of companies
27. Management - winding of companies
28. Negotiable instruments act
29. Essential commodities act
30. APMC Act
31. Consumer protection act
32. RTI act
33. MRTP act - major provisions and implications
34. Factory act - labour laws - industrial dispute act – law of insurance

Reference Books

1. Adhikary, M. 1986, *Economic Environment of Business*, Sulthan Chand & Sons, New Delhi
2. Aswathappa, K. 1997, *Essentials of Business Environment*, Himalaya Publication, New Delhi
3. Gulshan S.S. & G.K. Kapoor, 2003, *Business Law Including Company Law*, 10th Edition, New Delhi
4. Kapoor, N.D., 2005, *Business Law*, Tata McGraw Hill, New Delhi
5. Tulsain, P.C., 2006, *Business Law*, Tata McGraw Hill, New Delhi

EAM 616 SUPPLY CHAIN MANAGEMENT (2+0)

Objectives

To make the students understand the concept of supply chain management and retail trading and its application in agribusiness.

Theory

Unit - I Concept of Supply Chain Management

Introduction - definition of supply chain management - scope - sustainable business - location - handling and delivery issues in agri business - creative business - agro centers - retail and food processing industries. Types of supply chain management - best practice supply chain management - buyer seller relationship - transactions - types of transactions - discrete transactions - supply chain benefits from supplier.

Unit - II Supply Chain Management and its Integration

Spot market transactions - contracts - market - specification - production management - resource utilization - quasi - vertical integration, tapered vertical integration - cost plus agreements - value added agriculture - joint ventures - strategic alliances - producers - cooperatives / commodity groups / government - fair trade.

Unit - III Business Plan and Supply Chain Management

Concept of simulation and simulation modeling - case studies on decision making techniques - business plan preparation - linkages between firms in the chain management. Partnership between producers and powerful processing and retail firms in the agri supply chain.

Unit - IV Logistics Management

History and evolution of logistics - elements of logistics – management - distribution management - distribution strategies - pool distribution - transportation management - fleet management - service innovation – warehousing - packaging for logistics – third party logistics (TPL/3PL) - GPS technology.

Unit - V Emerging Trends in Supply Chain Management

Review of emerging trends in information and communication technologies in agriculture supply chain management - application of computer software of simulation of agricultural production – planning, decision making and control.

Theory Schedule

1. Introduction - definition of supply chain management - scope - sustainable business
2. Location - handling and delivery issues in agri business - creative business
3. Agro centers - retail and food processing industries
4. Types of supply chain management
5. Best practice supply chain management
6. Buyer seller relationship - transactions
7. Types of transactions - discrete transactions
8. Supply chain benefits from supplier
9. Spot market transactions - contracts - market - specification
10. Production management
11. Resource utilization - quasi - vertical integration - tapered vertical integration
12. Cost - plus agreements - value - added agriculture
13. Joint ventures - strategic alliances
14. Producers - cooperatives or commodity groups
15. Government - fair trade
16. Concept of simulation and simulation modeling
17. **Mid Semester Examination**
18. Class exercises and case studies on decision making techniques
19. Business plan preparation
20. Linkages between firms in the chain management
21. Partnership between producers and powerful processing
22. Retails firms in the agri supply chain
23. Transmission of consumer demands and expectations through supply chains.
24. Logistics management - history and evolution of logistics - elements of logistics – mgt.
25. Distribution management - distribution strategies - Pool distribution
26. Transportation management - Fleet management - Service innovation
27. Warehousing - packaging for logistics – Third - Party Logistics (TPL/3PL) - GPS Technology
28. Review of emerging trends in information and communication
29. Technologies in agriculture supply chain management
30. Application of computer software of simulation of agricultural production
31. Planning, decision making and control
32. Concepts - background and use of Management Information System (MIS)
33. Decision Support System (DSS)
34. Expert System (ES) in agribusinesses

Reference Books

1. Gibson G.Vedamani., 2003, *Retail Management*, Jaico Publishing House, Mumbai.
2. Jishnu Hazra and Janat Shah, 2005, *Supply Chain Management*, Indian Institute of Mgt. (Publications), Bangalore.
3. Altekar, RV., 2006, *Supply Chain Management: Concepts and Cases*, Prentice Hall of India, New Delhi.
4. Monczka R., Trent R., and Handfield, R., 2002, *Purchasing and Supply Chain Management*, Thomson Asia.
5. Van Weele, A.J., 2000, *Purchasing and Supply Chain Management Analysis, Planning and Practice*, Vikas Publishing House, New Delhi.

EAM 617 MANAGEMENT OF FOOD PROCESSING INDUSTRIES (2+0)

Objectives

To expose the students to the needed management strategies for efficient functioning of food processing industries.

Theory

Unit - I Food Processing Industries an Overview

Food processing industries - definition - scope - management - organized - unorganized - indigenous - history of food processing industries in India - international scenario of food processing industries.

Unit - II Classification Food Processing Industries

Classification food processing industries - agriculture - horticulture - medicinal - aromatics - plantation - animal husbandry and fisheries - dairy, fruits and vegetable processing - grain processing - meat and poultry processing - fisheries - consumer foods including packaged foods, beverages and packaged drinking water.

Unit - III Marketing and Scope of the Processed Foods

Raw material procurement - problems, marketing of the processed foods - distribution logistics - promotional tools - pricing techniques – branding - problems in marketing - failures and reasons - success stories of food industry.

Unit - IV Food Safety and Training

Management of food safety and training - total quality management food processing machineries - organic food product manufacturing and management, certification and marketing pest control basic - pest control in line with international standards - comments: pest control standards - recall programme - food plant security - minimizing sabotage - food plant self - inspections.

Unit - V Policies Related to Food Processing Industries

National and international policies profile of domestic and overseas players - institutions - CII- CSIR - FAO - SPS - ISO - FPO - codex alimentaries - HACCP - international standards BRC, IFS, GFSI, ISO 22000, NFPA. National and international subsidies - certification procedures - cost-guide lines and consultancy.

Theory Schedule

1. Food processing industries - definition - scope - management organized - unorganized patented - packaged - aerated - alcoholic beverages - nutritive foods
2. Indigenous - patented - packaged - aerated - alcoholic beverages - nutritive foods
3. History of food processing industries in India
4. International scenario of food processing industries
5. Classification food processing industries - agriculture
6. Horticultural food processing industries
7. Medicinal - aromatics - plantation
8. Animal husbandry and fisheries
9. Dairy, fruits and vegetable processing
10. Grain processing
11. Meat and poultry processing - fisheries
12. Consumer foods including packaged foods
13. Beverages and packaged drinking water.
14. National and international policies
15. Profile of domestic and overseas players
16. Institutions - Confederation of Indian Industries (CII)
17. **Mid Semester Examination**
18. Council of Scientific and Industrial Research
19. FAQ- SPS
20. ISO
21. FPO, codex alimentaries
22. HACCP
23. National and international subsidies
24. Management of food safety and training
25. Total quality management
26. Food processing machineries
27. Organic food product manufacturing and management
28. Certification and marketing
29. Raw material procurement, problems
30. Marketing of the processed foods
31. Distribution logistics
32. Promotional tools
33. Pricing techniques
34. Branding

Reference Books

1. Jelen, P., 1985, *Introduction to Food Processing*, Reston Publishing, New Delhi
2. *Modern Technology of Food Processing & Agro Based Industries (2nd Edition 2005)*, NIIR Publications, New Delhi.
3. *Profitable Agro Based Project*, 2005, NIIR Publications, New Delhi.
4. Potly V.H. and M.J. Mulky, 1993, *Food Processing*, Oxford & IBH, New Delhi.
5. Sharma D.D., 2005, *Total Quality Management*, Sultan Chand & Sons, New Delhi.

EAM 618 COMMODITY FUTURE TRADING (2+0)

Objectives

This course is aimed at providing the basic understanding and the mechanics and value of futures markets for speculators and hedgers which in turn will serve as price risk management activities of agribusiness firms.

Theory

Unit - I Commodity Markets

History and evolution of commodity markets – terms and concepts: spot - forward and futures markets – factors influencing spot and future markets. Speculatory mechanism in commodity futures.

Unit - II Trading Strategies

Transaction and settlement – delivery mechanism - role of different agents - trading strategies - potential impact of interest rate - Foreign Exchange - FDI in commodity markets.

Unit - III Risk in Commodity Trading

Risk in commodity trading - importance and need for risk management measures - managing market price risk - hedging, speculation, arbitrage, swaps - pricing and their features.

Unit - IV Commodity Exchanger

Important global and Indian commodity exchanges - contracts traded – special features - regulation of Indian commodity exchanges - FMC and its role.

Unit - V Technical Analysis

Fundamental Vs Technical analysis – construction and interpretation of charts and chart patterns for analyzing the market trend – market indicators – back testing. Introduction to technical analysis software – analyzing trading pattern of different commodity groups.

Theory Schedule

1. History and Evolution of commodity markets
2. Terms and concepts
3. Spot, forward and futures markets
4. Spot, forward and futures markets (Contd.)
5. Factors influencing spot and future markets
6. Factors influencing spot and future markets (contd.)
7. Speculator mechanism in commodity futures.
8. Transaction and settlement
9. Delivery mechanism
10. Role of different agents
11. trading strategies
12. Potential impact of interest rate
13. Foreign Exchange
14. Foreign Exchange (Contd.)
15. FDI in Commodity Markets
16. Risk in commodity trading
17. **Mid Semester Examination**
18. Importance and need for risk management measures
19. Managing market price risk
20. Hedging, speculation, arbitrage, swaps
21. Hedging, speculation, arbitrage, swaps (Contd.)
22. Pricing and their features
23. Important global and Indian commodity exchanges
24. Contracts traded
25. Special features
26. Regulation of Indian commodity exchanges
27. FMC and its role.
28. Fundamental Vs technical analysis
29. Construction and interpretation of charts and chart patterns for analyzing the market trend
30. Market indicators
31. Back testing
32. Introduction to technical analysis software
33. Introduction to technical analysis software (Contd.)
34. Analyzing trading pattern of different commodity groups

Reference Books

1. Kaufman, P.J., 1986, *The Concise Handbook of Futures Markets*, John Wiley & Sons. New Delhi
2. Leuthold, R.M, Junkus J.C., & Cordier J.E., 1989, *The Theory and Practice of Futures Markets*. Lexington Books, London.
3. Lofton, T. 1993, *Getting Started in Futures*, 3rd Ed. John Wiley & Sons., New Delhi.
4. Purcell, W.D., 1991, *Agricultural Futures and Options: Principles and Strategies*, Macmillan Publishing, New Delhi.
5. Wasendorf, R.R., & Mc Cafferty, 1993, *All about Commodities from the Inside Out*. McGraw-Hill, New Delhi.

EAM 625 SALES AND DISTRIBUTION MANAGEMENT IN AGRI BUSINESS (2+0)

Objectives

The objective of this course is to provide knowledge to students on the theory and practice of sales promotion and product management.

Theory

Unit - I Introduction to Sales Management

Selling and marketing – selling and advertising – sales objectives – functions of sales management – duties and responsibilities of sales manager, salesmanship – art, science and profession, types of salesmanship – advantages and limitations of salesmanship – qualities of a good salesman.

Unit - II Sales Management Functions, Selling Process

Sales management – functions – sales planning, sales policy – sales organization, structuring and managing sales force – designing sales territories – fixing sales quota, controlling and motivating sales force. Selling processes – sizing up customers – AIDAS formula, sales promotion techniques – dealer and consumer promotion.

Unit - III Training of Salesman and Methods of Appraisal

Recruitment and selection of sales force – the need for sales – selection process. Training of salesman – importance – objectives, methods of training. Supervision of salesman – executive sales training programme. Appraising salesman's performance – methods of appraisal – Indices of salesman's performance – compensation of sales force – principles of compensation salesman – methods of compensation – additional compensator scheme.

Unit - IV Distribution Channels and Marketing Risk

Physical distribution – meaning, distribution mix – role of distribution in marketing. Transport – kinds, functions, advantages and limitations, managing transport – criteria for selecting good transport. The channel of distribution – its importance – selection of right channel – types of channels – dealer network. Managing marketing risk – types of risk – controlling risk – minimizing and managing risk.

Unit - V Distribution Environment – Intermediaries

Distribution environment – competitors, extensive distribution – franchise selling, public distribution – its special features. Description intermediate – their role and importance – types of intermediates – wholesaler and retailers – kinds of retailers – small scale and large scale retailers. Other intermediaries – brokers – commission agents, dealers, sole selling agents.

Theory Schedule

1. Selling and marketing – selling and advertising – sales objectives
2. Functions of sales management – duties and responsibilities of sales manager
3. Salesmanship – art, science and profession, types of salesmanship
4. Advantages and limitations of salesmanship – qualities of a good salesman
5. Sales management – functions – sales planning, sales policy
6. Sales organization, structuring and managing sales force
7. Designing sales territories – fixing sales quota, controlling and motivating sales force
8. Selling processes – sizing up customers – AIDAS formula
9. Sales promotion techniques – dealer and consumer promotion
10. Recruitment and selection of sales force
11. The need for sales – selection process
12. Training of salesman – importance – objectives, methods of training
13. Supervision of salesman – executive sales training programme
14. Appraising salesman's performance – methods of appraisal
15. Indices of salesman's performance
16. Compensation of sales force – principles of compensation salesman
17. **Mid Semester Examination**
18. Methods of compensation – additional compensator scheme
19. Physical distribution – meaning, distribution mix – role of distribution in marketing
20. Transport – kinds, functions, advantages and limitations
21. Managing transport – criteria for selecting good transport
22. The channel of distribution – its importance
23. Selection of right channel
24. Types of channels – dealer network
25. Managing marketing risk – types of risk
26. Controlling risk – minimizing and managing risk
27. Distribution environment
28. Competitors, extensive distribution – franchise selling
29. Public distribution – its special features
30. Description intermediate – their role and importance
31. Types of intermediates
32. Wholesaler and retailers – kinds of retailers
33. Small scale and large scale retailers
34. Other intermediaries – brokers – commission agents, dealers, sole selling agents

Reference Books

1. Acharya and Govekar, 2001, *Marketing and Sales Management*, Himalaya Publishing House, Mumbai.
2. Bellur, V.V., 1990, *Sales Management*, Himalaya Publishing House, Bombay.
3. Philip Kotler, 2006, *Principles of Marketing*, Prentice Hall of India, New Delhi.
4. Ramasamy, V.S., 2001, *Marketing Management*, Macmillan, New Delhi.
5. Rom Markin, 2000, *Marketing Strategy and Management*, John Wiley Sons Inc., New York.

EAM 626 MANAGEMENT OF AGRICULTURAL CLINICS AND AGRICULTURAL BUSINESS CENTRES (2+0)

Objectives

The objective of this course is to teach skill, training and gain the theory and practical knowledge about agribusiness centres and to provide opportunities for establishing various independent agri business organizations.

Theory

Unit - I Introduction to Agri-Business

Agri business – concept, nature and scope. Business environment – types. History and development of Agri Business Centres (ABC) / Agri Clinics (AC) – economic importance of agri business centres in Indian economy. Entrepreneurial opportunities in modern agriculture – farming, product marketing, inputs, processing, facilitative.

Unit - II Small Business Units and Role of Institutions in Promoting ABC

Components and characteristics of small business units – organizations and administrations. Small Scale Industries (SSI) - Small Industries Service Institutes (SISI). Management and managerial functions. Role of institutions – NABARD in promoting ABC/agri clinics.

Unit - III Agri Business Organization

Forms of agri-business organizations, advantages and disadvantages – financial setting of ABC – credit management. Production and materials management in ABC. Concepts of contract farming – buyback arrangement - farm level value addition - quality control - pattern and patent rights.

Unit - IV Marketing Environment, Marketing Competition

Micro business enterprise – networking – integrated enterprises management – agri business training centres. Marketing environment for products of agri business ventures – organizational set up of ABC. Marketing competition – product positioning. Preparation and implementation of marketing plan. Export procedures – letter of credit, export finance and export documents. Crop insurance scheme.

Unit - V Government Policies for Agri-Business Centres

Government policies for agri business centres and their impact on entrepreneurs. Establishment of special agri economic zone – flower, biotech, medicinal plants. Establishment of infrastructure facilities – warehouse and cold storage, agro service centres – combiners, harvesters and packers.

Theory Schedule

1. Agri business – concept, nature and scope
2. Business environment – types
3. History and development of Agri Business Centres (ABC) / Agri Clinics (AC)
4. Economic importance of agri business centres in Indian economy
5. Entrepreneurial opportunities in modern agriculture – farming, product marketing, inputs, processing, facilitative
6. Components and characteristics of small business units
7. Organizations and administrations. Small Scale Industries (SSI)
8. Small Industries Service Institutes (SISI)
9. Management and need for managerial functions
10. Role of institutions – NABARD in promoting ABC/agri clinics
11. Forms of agri-business organizations, advantage and disadvantage
12. Financial setting of ABC – credit management
13. Production and materials management in ABC
14. Concepts of contract farming – buyback arrangement
15. Farm level value addition
16. Quality control
17. **Mid Semester Examination**
18. Pattern and patent rights
19. Micro business enterprise – networking
20. Integrated enterprises management
21. Agri business training centres
22. Marketing environment for products of agri business ventures
23. Organizational set up of ABC
24. Marketing competition – product positioning
25. Preparation and implementation of marketing plan
26. Export procedures – letter of credit
27. Export finance and export documents
28. Crop insurance scheme
29. Government policies for agri business centres and their impact on entrepreneurs
30. Establishment of special agri economic zone – flower, biotech, medicinal plants
31. Establishment of infrastructure facilities
32. Warehouse and cold storage
33. Agro service centres
34. Combiners, harvesters and packers.

Reference Books

1. Chandra Prasanna, 1996, *Projects – Preparation, Appraisal, Budgeting and Implementation*, Tata McGraw Hill Publications, New Delhi.
2. Goel, B.B., 1989, *Project Management*, Deep & Deep Publications, New Delhi.
3. Little I.M.D., and J.A. Mirless, 1974, *Project Appraisal and Planning for Development Countries*, Oxford IBH Publishing Co., Pvt., Ltd., New Delhi,
4. Ruddar Dutt and K.P.M. Sundaram, 1984, *Indian Economy*, Sultan Chand and Company Ltd., New Delhi.
5. Walter, J. Wills, 1979, *An Introduction to Agri Business Management*, The Interstate Printers and Publishers, Inc, Illinois, U.S.A.

EAM 627 AGRICULTURAL CREDIT AND MICRO FINANCIAL INSTITUTIONS

(2+0)

Objectives

The objective of this course is to provide knowledge on principles, problems and practices of agricultural finance and to study the functions and activities of the various institutional lending agencies.

Theory

Unit - I Nature and Scope of Agricultural Finance

Agricultural finance - meaning - scope - classification of agricultural loans - institutional and non-institutional - impact of non-institutional loans - cooperative finance - nationalization of banks and its impact - role of private sector banks in agricultural finance - economic feasibility tests of credit - three R's, five C's and seven P's of credit - repayment plans.

Unit - II National and International Financial Institutions

Reserve Bank of India (RBI) - National Bank for Agricultural and Rural Development (NABARD) - its role and activities - World Bank - International Monetary Fund (IMF) - International Development Agency (IDA) - International Finance Corporation (IFC) - Establishment of Agri Clinics.

Unit - III Role of Commercial Bank

State Bank of India (SBI) - multi agency approach - specialized branch -Agricultural Development Branches (ADB) - branch expansion - lead bank scheme - village adoption scheme - Differential Rate of Interest Scheme (DRIS) - Regional Rural Banks (RRB) - operational set up - functions - progress - service area approach - kisan credit card scheme.

Unit - IV Microfinance and Financial Sector

Microfinance - definitions and concepts - genesis of microfinance - introduction to the financial sector in India - major microfinance initiatives of the government, banks and NBFCs - microfinance developments in India - microfinance programmes - Indian and other countries experiences - microfinance delivery models in India - evaluating the performance of Indian microfinance - the Rashtriya Mahila Khosh (RMK) and other government initiatives for microfinance.

Unit - V NABARD and Microfinance

Role of NABARD and microfinance - SHG bank linkages programmes - training programmes - SHGs and grameen bank groups - differences - issues in linking SHGs with formal credit delivery system - exploring empowerment and leadership at the grass roots - social entrepreneurship in the SHG movement in India - programmes and performance of SHGs - factors hindering progress of SHGs - measures to overcome. Role of NGOs in promoting SHGs and facilitating linkages - structural and legal constraints - remedial measures - financial and technical support to NGOs – micro insurance – joint liability groups.

Theory Schedule

1. Agricultural finance - meaning - scope
2. Classification of agricultural loans - institutional and non-institutional
3. Impact of non-institutional loans
4. Cooperative finance
5. Nationalization of banks and its impact - role of private sector banks in agricultural finance
6. Economic feasibility tests of credit - three R's, five C's and seven P's of credit - repayment plans.
7. Reserve Bank of India (RBI)
8. National Bank for Agricultural and Rural Development (NABARD)-its role and activities
9. World bank - International Monetary Fund
10. International Development Agency
11. International Finance Corporation
12. Establishment of Agri clinics.
13. State Bank of India (SBI) - multi agency approach, specialized branch
14. Agricultural Development Branches (ADB)
15. Branch expansion- lead bank scheme
16. Village adoption scheme - Differential Rate of Interest Scheme (DRIS)
17. **Mid Semester Examination**
18. Regional rural banks - operational set up - functions- progress
19. Service area approach - kisan credit card scheme.
20. Microfinance - definitions and concepts
21. Genesis of microfinance - Introduction to the financial sector in India
22. Major Microfinance initiatives of the government, banks and NBFCs
23. Microfinance developments in India
24. Microfinance programmers - Indian and other countries experiences
25. Microfinance delivery models in India - evaluating the performance of Indian microfinance
26. The Rashtriya Mahila Kosh (RMK) and other government initiatives for Microfinance.
27. NABARD and micro finance - SHG bank linkages programmers - training programmes
28. SHGs and Grameen bank groups - differences
29. Issues in linking SHGs with formal credit delivery system
30. Exploring empowerment and leadership at the grass roots
31. Social entrepreneurship in the SHG movement in India
32. Programmes and performance of SHGs - factors hindering progress of SHGs - measures to overcome.
33. Role of NGOs in promoting SHGs and facilitating linkages
34. Structural and legal constraints - remedial measures, financial and technical support to NGOs.

Reference Books

1. Gupta, S.C., 1987, *Development Banking for Rural Development*, Deep and Deep Publishers, New Delhi.
2. Indira Misra, 2003, *Micro Credit for Macro Impact on Poverty*, National Publishing House, New Delhi.
3. Karmakar, K.G., 2001, *Rural Credit and Self Help Groups - Microfinance Needs and Concepts in India*, Sage Publications India Pvt., New Delhi.
4. Muniraj, R., 1987, *Farm Finance for Development*, Oxford & IBH Publishers, New Delhi.
5. Thomas Fisher and M.S. Sriram, 2002, *Beyond Micro Credit : Putting Development Banks into Micro Finance*, Vistaar Publications, New Delhi.

EAM 713 INTERNATIONAL TRADE AND AGRI BUSINESS (2+0)

Objectives

To expose the students of agriculture to the theory of international trade in the present WTO regime and make them keep abreast of the latest developments.

Theory

Unit - I Theories on Agricultural Trade

Basic concepts - classical theory of trade - Adam Smith, David Ricardo. Introduction to neo - classical trade theory - supply side analysis - opportunity cost - trade under increasing opportunity costs - factor endowments - trade and factor prices - factor price equalization. Demand side analysis - community indifference curves - demand and international trade. Integration of demand and supply - offer curve analysis - general equilibrium - equilibrium in product and factor markets.

Unit - II Trade Policies

Application of trade theory, terms of trade - supply and demand shifts - technological change - factor supplies and trade - factor intensities - transport costs, location. Trade with many goods and countries - leontief paradox - human skills - technological gaps - the product cycle - scale economies. Trade policies - instruments, impacts of trade policies - economic integration and regional groupings.

Unit - III Introduction to International Finance

Introduction to international finance - balance of trade and balance of payments - foreign exchange market - transactions, determination of foreign exchange rates - international economic organizations - IMF, World Bank, IDA, IFC, ADB - their role in international trade and terms of trade.

Unit - IV International Agreements and Trade Organization

International trade agreements Uruguay round - GATT,WTO - their role in promotion of trade - agricultural export and import policies of India - role of State Trading Corporation (STC) - export promotion organizations - Export Promotion Zones (EPZ) - Agricultural Export Zones (AEZ) - role of EXIM Bank, commercial banks in foreign trade - government policy.

Unit - V WTO and Agriculture

Implication of WTO on Indian agriculture - comparative advantage and competitiveness of India's agricultural commodities - India's export performance and potential Horticulture in WTO era - WTO and input industries - case study on basmati rice, Bt cotton, dairy products, turmeric and medicinal crops in India - Indian trade protection organization - demand supply gap and exportable surplus - strategies for agricultural exports - agricultural export zones.

Theory Schedule

1. Basic concepts
2. Classical trade theory.
3. Introduction to neo - classical trade theory
4. Supply side analysis
5. Opportunity cost; trade under increasing opportunity costs
6. Factor endowments; trade and factor prices
7. Factor price equalization.
8. Demand side analysis; community indifference curves
9. Demand and international trade.
10. Integration of demand and supply
11. Offer curve analysis - general equilibrium
12. Equilibrium in product and factor markets
13. Application of trade theory
14. Terms of trade - supply and demand shifts
15. Technological change - factor supplies and trade - factor intensities - transport costs, location.
16. Trade with many goods and countries - Leontief paradox - human skills - technological gaps
17. **Mid Semester Examination**
18. Product cycle - scale economies. Trade policies - instruments, impacts of trade policies - economic integration and regional groupings.
19. Introduction to international finance
20. Balance of trade and balance of payments
21. Foreign exchange market - transactions, determination of foreign exchange rates
22. International economic organizations
23. IMF, World Bank, IDA, IFC, ADB - their role in international trade and terms of trade.
24. International trade agreements Uruguay round - GATT,WTO - their role in promotion of trade
25. Agricultural export and import policies of India - role of State Trading Corporation (STC) - Export promotion organizations
26. Export Promotion Zones (EPZ) - Agricultural Export Zones (AEZ)
27. Role of EXIM Bank, commercial banks in foreign trade - Government policy
28. Implication of WTO on Indian agriculture , comparative advantage and competitiveness of India's agricultural commodities
29. India's export performance and potential horticulture in WTO era
30. WTO and input industries
31. Case study on basmati rice, Bt cotton
32. Case study on dairy products, turmeric and medicinal crops in India
33. Indian trade protection organization - demand supply gap and exportable surplus
34. Strategies for agricultural exports - agricultural export zones.

Reference Books

1. Arun Goyal and Moor Mohamed, 2001, *WTO in the New Millennium*, Academy of Business Studies, New Delhi.
2. Bilek Debroy, 2004, *Intellectual Property Rights*, BR World of Books, New Delhi.
3. Francis Cherunilam, 1996, *International Trade and Export Management*, Himalaya Publishing House, Mumbai.
4. Francis Cherunilam, 1998, *International Economics*, Tata McGraw Hill Publishing Company Ltd., New Delhi.
5. Jhingon, J.L., 1998, *International Economics*, Vrinda Publications, New Delhi.

EAM 714 ENTREPRENEURSHIP DEVELOPMENT (2+0)

Objectives

To make the students understand the concept of entrepreneurship development skills for agri business

Theory

Unit - I Concept of Entrepreneurship Development

Introduction - agri business - entrepreneur - entrepreneurship - motivation - opportunities - need, scope and characteristics of entrepreneurship - supporting organization including financial institution and their schemes - special schemes for technical entrepreneurs.

Unit - II Classification of Entrepreneurship

Types of entrepreneurship - food processing - export oriented units - agri inputs - organic product entrepreneurship - service entrepreneur - certification entrepreneurs - clearing and forwarding entrepreneurs - machinery manufactures - books of accounts - financial statements and funds flow analysis - energy requirement and utilisation - resource management men, machine and materials - creativity and innovation - problem solving approach - Strength Weakness Opportunity and Threat (SWOT) Techniques.

Unit - III Entrepreneurship Institutions

Entrepreneurship institutions - EDII - CFTRI - STEP - NSIC - KVIC - KVIB - EDP trainings - EDP innovations - traditional technology entrepreneurship - product patenting - MoU - factory orientation management issues - techno economic feasibility of the project - plant layout and process planning for the product - quality control/quality assurance and testing of product - elements of marketing and sales management - nature of product and market strategy - packaging and advertising - after sales service - costing and pricing - management of self and understanding human behaviour.

Unit - IV Resource Building

Behavioural inputs - entrepreneurial motivation and competencies, problem solving - procedures required for setting up enterprise and incentive and benefits - agri clinics - agri business centres - agro related consultancies - market survey and market research - export oriented entrepreneurship - MoU basic rules.

Unit - V New Venture Planning

Starting your own business - feasibility study - entrepreneurship, wealth creation and society - core business skills - dimensions of entrepreneurial behaviour - analysis of competencies and assessment of potential entrepreneurs - identification of entrepreneurial competencies - process of business opportunity identification - migrating from ideas to execution - scaling up - balancing conflicting ideas and managing trade offs - business profile.

Theory Schedule

1. Introduction to Entrepreneurship Development
2. Agri business - entrepreneur - motivation - opportunities – need - scope
3. Characteristics of entrepreneurship
4. Special schemes for technical entrepreneurs - STED
5. Types of entrepreneurship - food processing - export oriented units - agri inputs
6. Organic product entrepreneurship – service entrepreneur - certification entrepreneurs
7. Clearing and forwarding entrepreneurs - machinery manufactures
8. Books of accounts - financial statements and funds flow analysis
9. Energy requirement and utilisation - resource management men - machine and materials
10. Creativity and innovation - problem solving approach
11. Strength Weakness Opportunity and Threat (SWOT) techniques –
12. Entrepreneurship institutions
13. EDP innovations - traditional technology entrepreneurship
14. Product patenting - MoU - factory orientation management issues
15. Techno - economic feasibility of the project
16. Plant layout and process planning for the product
17. **Mid Semester Examination**
18. Quality control / quality assurance and testing of product
19. Elements of marketing and sales management
20. Nature of product and market strategy
21. Packaging and advertising - after sales service - costing and pricing
22. Management of self and understanding human behaviour - behavioural inputs - entrepreneurial motivation and competencies,
23. Problem solving - procedures required for setting up enterprise and incentive and benefits
24. Agri clinics - agri business centres - Agro - related consultancies
25. Market survey and market research
26. Export oriented entrepreneurship
27. Starting your own business - feasibility study
28. Entrepreneurship - wealth creation and society - core business skills
29. Dimensions of entrepreneurial behaviour
30. Analysis of competencies and assessment of potential entrepreneurs
31. Identification of entrepreneurial competencies
32. Process of business opportunity identification
33. Migrating from ideas to execution - scaling up
34. Balancing conflicting ideas and managing trade offs - business profile

Reference Books

1. Hisrich, R.D. and M.P. Peters, 2002, *Entrepreneurship*, Tata MC Graw Hill, New Delhi.
2. Jain, P.C, 2004, *A Handbook Profitable Entrepreneurship*, EDII Publications, Ahmadabad.
3. Jain, G.R. and Akbar Ansari, 2004, *Self - Made Impact - Making Entrepreneurs*, EDII, Ahmadabad.
4. Mamoria, C.B., S.V. Gankar., 2004, *A Text Book of Human Resource Management*, Himalaya Publishing House Mumbai.
5. Nandan, H., 2007, *Fundamentals of Entrepreneurship Management*, Prentice Hall, New Delhi.

EAM 715 INSURANCE AND RISK MANAGEMENT IN AGRIBUSINESS (2+0)

Objectives

The aim of this course is to provide the students a thorough knowledge on the principles of insurance, practices of risk management in agri business and various insurance policies and schemes available for agri business.

Theory

Unit - I Concept of Risk and Insurance

The concept of risk - kinds and classification of risks - assessment - the concept of insurance - types of general insurance, agriculture, fire, marine, engineering - insurance of property. Insurance professionals and intermediaries.

Unit - II Principles of Insurance

Basic principles of insurance - utmost good faith - insurable interest - material facts - economic principles - sharing - subrogation - contribution - legal principles - the Indian Contract Act, 1872 - insurable interest - nomination and assignment - financial principles - premium funds - investments.

Unit - III Agricultural Insurance

Agricultural situation - types of agricultural insurance - crop insurance - problem - crop insurance in other countries - cattle insurance policy - valuation of cattle - loans assessment - settlement of claims - poultry insurance - miscellaneous insurance - shrimp culture sericulture, apiculture, plantations - bio-gas, animal driven cart - agricultural pump sets.

Unit - IV Basics in Risk Management

Risk and uncertainty - acceptable risks versus unacceptable risks - classification of risk - the cost of risk - handling risks. The scope and objective of risk management measurement of risk and adjustment to risk - linear programming and marginal analysis - MOTAD - personal risk management.

Unit - V Techniques of Risk Management

Risk identification - risk evaluations - statistical methods & probability concepts - decision taken under conditions of risk & uncertainty - risk avoidance - risk reduction and loss control - insurance - benefits and limitations - partial insurances - risk management and corporate objectives.

Theory Schedule

1. Concept of risk in the context of agri business
2. Kinds and classification of risk
3. Risk assessment
4. The concept of insurance
5. Types of general insurance - agriculture
6. General insurance - fire, marine, engineering property
7. Insurance professionals and intermediaries
8. Basic principles of insurance - utmost good faith, insurance interest, - material facts
9. Economic principles of insurance
10. Legal principles of insurance
11. The Indian contract act 1872
12. Financial principles
13. Agricultural situation in India
14. Types of agricultural insurance and organisation transacting agricultural insurance Crop insurance - scope and practices
15. Problems in crop insurance and remedies
16. Crop insurance in other countries
- 17. Mid Semester Examination**
18. Cattle insurance - loss assessment - settlement
19. Poultry Insurance - valuation - loss assessment - settlement
20. Insurance on sericulture, apiculture
21. Insurance on - horticulture crops
22. Insurance on plantations
23. Insurance on bio - gas - pump sets and other miscellaneous insurance
24. Basics in risks and uncertainty
25. Acceptable risks versus unacceptable risks and measurement of risk and adjustment to risk
26. Classification of risks relevant to agri business
27. The cost of risks and handling of risk
28. The scope & objective of risk management, optimization under risky condition
29. Personal risk management
30. Risk identification
31. Risk evaluation - statistical methods and probability concepts - linear programming, marginal analysis - MOTAD
32. Decision taken under conditions of risks and uncertainty
33. Risk avoidance - risk reduction and loss control Insurance benefits & limitations
34. Partial insurance, risk management and corporate objectives

Reference Books

1. David C., and Debertin, 1986, *Agricultural Production Economics*, Mac Millan Publishing Company, New York.
2. *General Insurance*, 2004, Publication of United India Insurance Co, Ltd., Chennai.
3. *General Insurance*, 2004, Publication of Insurance Institution of India, Mumbai.
4. Sankhayan, P.L., 1988, *Introduction to the Economics of Agricultural Production*, Prentice Hall of India, New Delhi.
5. 1998, *Crop Insurance*, Insurance Institute of India.

EAM 722 FOOD RETAIL MANAGEMENT (2+0)

Objectives

The objective of this course is to assist students in understanding the structure and working of food marketing system in India, to examine how the system affects farmers, consumers and middlemen and to illustrate the response of this dynamic marketing system to technological, socio-cultural, political and economic forces over time.

Theory

Unit - I International Food Market

Introduction to international food market - India's competitive position in world food trade - foreign investment in global food industry - retail management and food retailing - the nature of change in retailing - organized retailing in India - e-tailing and understanding food preference of Indian consumer - food consumption and expenditure pattern - demographic and psychographic factors affecting food pattern of Indian consumer.

Unit - II Value Chain

Value Chain in food retailing - principal trends in food wholesaling and retailing - the changing nature of food stores - various retailing formats - competition and pricing in food retailing - market implications of new retail developments - value chain and value additions across the chain in food retail - food service marketing.

Unit - III Pricing Strategies

4 P's in food retail management - brand management in retailing - merchandise pricing - pricing strategies used in conventional and non-conventional food retailing - public distribution system - promotion mix for food retailing - management of sales promotion and publicity - advertisement strategies for food retailers.

Unit - IV Retail Operations

Managing retail operations - managing retailers' finance - merchandise buying and handling - merchandise pricing - logistics - procurement of food products and handling transportation of food products.

Unit - V Retail Selling

Retail sales management types of retail selling - salesperson selection - salesperson training - evaluation and monitoring - customer relationship management - managing human resources in retailing - legal and ethical issues in retailing.

Theory Schedule

1. Introduction to international food market
2. India's competitive position in world food trade
3. Foreign investment in global food industry
4. Retail management and food retailing
5. The nature of change in retailing
6. Organized retailing in India
7. E-tailing and understanding food preference of Indian consumer
8. Food consumption and expenditure pattern
9. Demographic and psychographic factor affecting
10. Food pattern of Indian consumer
11. Value chain in food retailing
12. Principal trends in food wholesaling and retailing
13. The changing nature of food stores
14. Various retailing formats
15. Competition and pricing in food retailing
16. Market implications of new retail developments
17. **Mid Semester Examination**
18. Value chain and value additions across the chain in food retail
19. Food service marketing
20. 4 P's in food retail management
21. Brand management in retailing
22. Merchandise pricing, pricing strategies used in conventional and non-conventional food retailing
23. Public distribution system
24. Promotion mix for food retailing
25. Management of sales promotion and publicity
26. Advertisement strategies for food retailers
27. Managing retail operations and retailers' finance
28. Merchandise buying and handling, merchandise pricing
29. Logistics, procurement of food products and handling transportation of food products
30. Retail sales management, types of retail selling
31. Salesperson selection, training, evaluation and monitoring
32. Customer relationship management
33. Managing human resources in retailing
34. Legal and ethical issues in retailing

Reference Books

1. Acharya, S.S., and N.L., Agarwal, 2004, *Agricultural Marketing in India*, Oxford and IBH, New Delhi.
2. Berman and Evans, 2008, *Retail Management: A Strategic Approach*, 10th Ed. Prentice Hall of India, New Delhi.
3. Cox., 2006, *Retailing: An Introduction*, 5th Ed. Pearson Edu.
4. Levy, M., & Weitz B.W, 2004, *Retailing Management*, 5th Ed. McGraw Hill Publishing, New Delhi.
5. Potly, V.H., and M.J. Mulky, 1993, *Food Processing*, Oxford and IBH, New Delhi.

EAM 723 COMMUNICATION FOR MANAGEMENT AND BUSINESS (2+0)

Objectives

The course aims to make students proficient in written as well oral communication. The focus will be on business related communication.

Theory

Unit - I Communication - Introduction

Introduction to communication - communication process - barriers to communication - effective communication - types of communication in organisations viz. – downward – upward – horizontal - static vs dynamic.

Unit - II Types of Communication

Non-verbal communication - communication through clothes/ colours / space/symbol - body language and etiquettes - interpersonal communication - self-concept and communication - assertive communication.

Unit - III Business Writing

Types of business writing - news letters – reports – folders - fact sheets - press release - readership and writing style - human aspects of writing.

Unit - IV Meetings

Meetings - planning for meeting - tips for chairing, opening - progress & ending - behaviour of ordinary members - the character of business meeting - energies for meetings - group discussions - brain storming sessions and presentations.

Unit - V Personal Communication

Handling personal communication – letters – dictation – reading - problem-solving - listening skills - self-talk - self – reflection - steps to personal creativity - public speaking.

Theory Schedule

1. Introduction to communication
2. Communication process
3. Barriers to Communication
4. Effective Communication
5. Types of communication in organizations
6. Downward, Upward, Horizontal, Static Vs dynamic
7. Non-Verbal Communication
8. Communication through clothes/ colours / space/symbol
9. Body language and etiquettes
10. Interpersonal Communication
11. Self-concept and communication
12. Assertive Communication
13. Types of business writing
14. News letters, Reports
15. Folders, Fact Sheets
16. Press release
17. **Mid Semester Examination**
18. Readership and writing style
19. Human aspects of writing
20. Meetings - Planning for meeting
21. Tips for chairing, opening, progress & ending
22. Behavior of ordinary members
23. The character of business meeting
24. Energies for meetings
25. Group discussions
26. Brain storming sessions
27. Presentations
28. Handling personal communication
29. Letters, dictation, reading, problem-solving
30. listening skills
31. Self-talk
32. Self – reflection
33. Steps to personal creativity
34. Public speaking.

Reference Books

1. Bovee., 2008, *Business Communication Today*, 7th Ed. Pearson Edu, New Delhi.
2. Brown L., 2006, *Communication Facts and Ideas in Business*, Prentice Hall, New Delhi.
3. James O'Brien, 1999, *Management Information System*, Tata Mc Graw Hill, New Delhi.
4. Lesikar. 2004, *Basic Business Communication*. McGraw Hill, New Delhi.
5. Ramchandran K.K., Lakshmi K. K., & K.K. Karthik, 2007. *Business Communication*, Macmillan.

EAM 724 AGRIBUSINESS FINANCIAL MANAGEMENT (2+0)

Objectives

To impart trainings to the students regarding various aspects of financial management for agribusiness.

Theory

Unit - I Financial Management

Importance - need and scope of financial management - classification and credit need in changing agriculture scenario - finance functions - investment financing - balance sheet - income statement - cash flow statement for agribusiness.

Unit - II Financial Planning

Financial planning and control – assessment of financial requirement of a agribusiness unit; leverage – concept of leverage - financial and operating leverage - factor affecting capital structure - features of an optimal capital structure.

Unit - III Working Capital Management

Working capital management – concept and components of working capital - need for working capital in agribusiness - management of cash and accounts receivables - inventory for agribusiness.

Unit - IV Capital Budgeting

Capital budgeting - steps and concept of capital budgeting - appraisal criteria – payback period - average rate of return - net present value - benefit-cost ratio and internal rate of return.

Unit - V Agri Business Financing System

Agri-business financing system in India - functioning of cooperative credit institutions - commercial banks - regional rural banks – NABARD - Agro-Industries Corporation, etc in agribusiness financing.

Theory Schedule

1. Importance, need and scope of financial management
2. Classification of credit
3. Credit need in changing agriculture scenario
4. finance functions, investment financing
5. Balance sheet for agribusiness
6. Income statement for agribusiness
7. Cash flow statement for agribusiness
8. Financial planning and control
9. Assessment of financial requirement of a agribusiness unit
10. Leverage – concept of leverage
11. Financial and operating leverage
12. Factor affecting capital structure
13. Features of an optimal capital structure
14. Working capital management
15. Concept and components of working capital
16. Need for working capital in agribusiness
17. **Mid Semester Examination**
18. Management of cash for agribusiness
19. Management of accounts receivables for agribusiness
20. Management of inventory for agribusiness
21. Capital budgeting
22. Steps and concept of capital budgeting
23. Appraisal criteria
24. Payback period, average rate of return
25. Net present value
26. Benefit-cost ratio
27. Internal rate of return
28. Agri-business financing system in India
29. Functioning of cooperative credit institutions in agribusiness financing
30. Commercial banks in agribusiness financing
31. Regional rural banks in agribusiness financing
32. NABARD in agribusiness financing
33. Agro-Industries in agribusiness financing
34. Corporation, in agribusiness financing.

Reference Books

1. Chandra, P., 2000, *Financial Management*, Tata McGraw Hill, New Delhi
2. Khan M.Y., & P.K. Jain 2004. *Management Accounting*, Tata McGraw Hill New Delhi.
3. Nelson, A.G. & Murrey W.G. 1988. *Agricultural Finance*, Kalyani Publishing, New Delhi.
4. Pandey, I.M., 1997 *Financial Management*, Vikas Publ. House, New Delhi.
5. Van Horne, J.C., 1997, *Financial Management and Policy*. Prentice Hall of India, New Delhi.

SAM 611 BUSINESS STATISTICS (2+1)

Objectives

To make the students conversant about the applications of statistics in agri business analysis.

Theory

Unit - I Data Collection

Business statistics - definition - scope - functions - limitations - applications. Collection of data - primary and secondary - methods of collection - drafting the questionnaire - sources of data - editing - classification and tabulation of data - diagrammatic and graphical representation.

Unit - II Theory of Distributions

Measures of central value - measures of dispersion - methods of studying variation - distributions - binomial distribution - poisson distribution - exponential distribution - uniform distribution - normal distribution - their applications.

Unit - III Tests of Significance

Theory of sampling - sampling techniques - standard error - sampling distribution. Tests of significance based on t test - chi-square test - large and small samples. F-test -ANOVA for one way and classified data.

Unit - III Correlation and Regression

Correlation and regression analysis - regression models - assumptions - estimation - hypothesis testing - violation of assumptions - problem of multicollinearity - heteroskedasticity and auto correlation . Concept of discriminate analysis - cluster analysis - factor analysis.

Unit - V Nonparametric Tests and Time Series Models

Introduction to nonparametric test - the signed rank test - Mann - Whitney U test - run test - Kruskall Wallis test. Introduction to time series models – AR - MA - ARMA models - forecasting using SPSS - MAT Lab - LIMDEP.

Practical

Frequency distribution - graphical representation - measures of central values measures of dispersions - applications of binomial distribution - poisson distribution - uniform distribution, exponential distribution and normal distribution - problems in correlation and regression analysis - partial correlation - multiple correlation and multiple regression. Tests of significance for small and large samples problems - non parametric test - time series analysis – AR, MA and ARMA Models - forecasting using SPSS - MAT Lab - LIMDEP.

Theory Schedule

1. Business statistics - definition
2. Scope - functions
3. Limitations - applications
4. Collection of data - primary and secondary
5. Methods of collection
6. Drafting the questionnaire
7. Sources of data - editing
8. Classification and tabulation of data
9. Diagrammatic and graphical representation
10. Measures of central value
11. Measures of dispersion
12. Methods of studying variation distributions
13. Binomial distribution poisson distribution
14. Exponential distribution - uniform distribution
15. Normal distribution - their applications
16. Theory of sampling - sampling techniques
- 17. Mid Semester Examinations**
18. Standard error - sampling distribution
19. Tests of significance based on t test - chi-square test
20. Large and small samples
21. F-test - ANOVA for one way and classified data
22. Correlation and regression analysis
23. Regression models - assumptions
24. Estimation - hypothesis testing
25. Violation of assumptions
26. Problem of multicollinearity
27. Heteroskedasticity and auto correlation
28. Concept of discriminate analysis
29. Cluster analysis - factor analysis
30. Introduction to nonparametric test
31. The signed rank test
32. Mann - Whitney U test - run test - Kruskal Wallis test
33. Introduction to time series models
34. AR, MA - ARMA models - Forecasting using SPSS - MAT Lab - LIMDEP.

Practical Schedule

1. Frequency distribution
2. Graphical representation
3. Measures of central values measures of dispersions
4. Applications of binomial distribution
5. Poisson distribution
6. Uniform distribution
7. Exponential distribution and normal distribution
8. Problems in correlation and regression analysis
9. Partial correlation
10. Multiple correlation and multiple regression
11. Tests of significance for small and large samples problems
12. Non parametric test
13. Time series analysis
14. AR, MA and ARMA Models
15. Forecasting using SPSS
16. MAT Lab
17. LIMDEP

Reference Books

1. Agarwal, B.M., 1995, *Basic Statistics*, New Age International Ltd, New Delhi.
2. Gupta, S.C. and V.K.Kapoor, 2004, *Fundamentals of Statistics*, Sultan Chand and Sons, New Delhi.
3. Priestly, M.B.,1981, *Spectral Analysis and Time Series*, Academic Press, New Delhi.
4. Rangasamy, R. ,1990, *A Text Book on Agricultural Statistics*, New Age India Ltd, Chennai.
5. Senthamarai Kannan, K. and D. Venkatesan, 2005, *Introduction to Statistical Methods*, Scitech Publications (India) Private Ltd., Chennai.

CAM 621 COMPUTER APPLICATIONS FOR MANAGERS (1+1)

Objectives

The course objective is to acquaint the students with the knowledge and use of computers and simple applications of computers in managerial decisions. Effort will also be made to provide them an orientation about the increasing role of computers in corporate/business world.

Theory

Unit - I History of Computers

Concept of Computers - brief history of computers, generation and its evolution, characteristics of computers, hardware and software, introduction to computer languages, main areas of computers and their applications; types of computers – analog, digital, hybrid, general purpose and special purpose computers, micro computers, mini-computers, main-frame computers, and super computers.

Unit - II Input – Output Devices

Input - Output Devices - storage units (Disks, CD-ROM, DVD-ROM, Blue Ray Disk and tapes) - memory types (Cache, RAM, ROM) - memory units - generation and types of microprocessor.

Unit - III Data Processing Systems

Data and information – data definition - data processing systems - data type numeric – alphabetic - audio, graphic, and video and their presentation - data processing - introduction to data processing - computer as a tool for data processing - data processing cycle - data processing techniques - data analysis - data inputs and outputs - data processing management - data security.

Unit - IV Operating Systems

Introduction to operating systems - MS Windows, and UNIX, MS Office (MS Word, MS Power Point, MS Excel, MS-Access and use of various management software's Like SPSS).

Unit - V Internet and Search Engines

Introduction to LAN, WAN, MAN - internet and search engines - introduction to agri-portals like agriwatch.com - agmarknet.nic.in - echaupal.com

Theory Schedule

1. Concept of computers
2. Brief history of computers - generation and its evolution - characteristics of computers - hardware and software - introduction to computer languages - main areas of computers and their applications
3. Types of computers – analog, digital, hybrid, general purpose and special purpose computers - micro computers - mini-computers - main-frame computers, and super computers
4. Input - output devices
5. Storage units (Disks, CD-ROM, DVD-ROM, Blue Ray Disk and tapes)
6. Memory types (Cache, RAM, ROM), memory units
7. Generation and types of microprocessor
8. **Mid Semester Examination**
9. Data and information
10. Data definition - data processing systems - data type numeric – alphabetic – audio – graphic - video and their presentation
11. Data processing - introduction to data processing - computer as a tool for data processing - data processing cycle - data processing techniques - data analysis - data inputs and outputs - data processing management - data security
12. Introduction to operating systems
13. MS Windows
14. UNIX, MS Office (MS Word, MS Power Point, MS Excel, MS-Access and use of various management software's Like SPSS).
15. Introduction to LAN, WAN, MAN
16. Internet and search engines
17. Introduction to agri-portals like agriwatch.com - agmarknet.nic.in - echaupal.com

Practical Schedule

1. Introduction to computer languages
2. Introduction to Hardware and Software
3. Input devices
4. Output devices
5. Storage devices
6. Introduction to Operating system
7. MS Word
8. MS power point
9. MS excel
10. Introduction to SPSS
11. LAN
12. WAN
13. MAN
14. Internet Service Provider (ISP)
15. Search engine
16. Agri Portals
17. Computer languages for managers

Reference Books

1. Kapoor V.K., 2004, *Introduction to Computers and Information Systems*, Sultan Chand & Sons, New Delhi
2. Lucas,. 2004, *Information Technology for Management*, Tata McGraw Hill, New Delhi.
3. Norton, P. 1998, *Introduction to Computers*. 2nd Ed. Tata McGraw Hill, New Delhi.
4. Rajaraman, V. 2006, *Introduction to Information Technology*, Prentice Hall of India, New Delhi.
5. Ron Mansfield, 2000, *Working in Microsoft Office*, Tata Mc Graw Hill, New Delhi

NON CREDIT COMPULSORY COURSES
PGS 612: RESEARCH DATA ANALYSIS (0+1)

Practical

Data collection – editing and formatting data – data analysis through MS Excel – creation and usage of excel spread sheet. Analysis through SPSS and Limdep – operation basics – managing data – data input, export and transformation – tabulation and chi square analysis – other non parametric analyses – reliability analysis – multidimensional scaling – factor analysis – cluster analysis – discriminant analysis – simple and multiple regression analyses – logistic regression – hierarchical log linear model – general log linear model – interpretation of results – techniques, precautions & significance.

Practical Schedule

1. Data collection – editing and formatting data
2. Data analysis through MS Excel – creation and usage of excel spread sheet
3. Analysis through SPSS and Limdep – operation basics
4. Managing data – data input, export and transformation
5. Tabulation and chi square analysis
6. Other non parametric analyses
7. Reliability analysis – multidimensional scaling
8. Factor analysis
9. Cluster analysis
10. Discriminant analysis
11. Simple regression analysis
12. Multiple regression analysis
13. Logistic regression
14. Hierarchical log linear model
15. General log linear model
16. Interpretation of results
17. Techniques, precautions & significance.

References

1. Norton, P.1998, Introduction to computers, second edition, Tata Mc Graw Hill, New Delhi.
2. Rajaraman,V.2006, Introduction to information technology, Prentice Hall of India, New Delhi.
3. Kothari,C.R., 2003, Research methodology – methods and techniques, Wiley Eastern Ltd., New Delhi.
4. Singh, Arun Kumar, 1993, Tests, measurements and research methods in behavioural sciences, Tata Mc Graw Hill Publishing Co Ltd., New Delhi.

PGS 622: TECHNICAL WRITING AND COMMUNICATION SKILLS (0+1)

Objective

To equip the students with skills *Viz.*, writing of dissertations, research papers, etc. and to communicate and articulate in English

Practical

Grammar - Tenses, parts of speech, clauses, punctuation marks; Error analysis - Common errors; Concord; Collocation; Phonetic symbols and transcription; Accentual pattern: Weak forms in connected speech: Participation in group discussion: Facing an interview; presentation of scientific papers. Proof reading.

Technical Writing - Various forms of scientific writings- theses, technical papers, reviews, manuals, etc; Structure of thesis and research communications (title page, authorship contents page, preface, introduction, review of literature, material and methods, experimental results and discussion); Writing of abstracts, summaries, précis, citations etc.; commonly used abbreviations in the theses and research communications; illustrations, photographs and drawings with suitable captions; pagination, numbering of tables and illustrations; Writing of numbers and dates in scientific write-ups; Editing and proof-reading; Writing of a review article.

Practical schedule

1. Grammar (Tenses, parts of speech)
2. Grammar (clauses, punctuation marks)
3. Error analysis (Common errors); Concord; Collocation;
4. Phonetic symbols and transcription;
5. Accentual pattern: Weak forms in connected speech
6. Participation in group discussion
7. Facing an interview; presentation of scientific papers.
8. Technical Writing- Various forms of scientific writings- theses, technical papers
9. Mid -semester
10. Technical Writing- reviews, manuals
11. Structure of thesis and research communications
12. Writing of abstracts, summaries, précis, citations etc
13. Commonly used abbreviations in the theses and research communications
14. Illustrations, photographs and drawings with suitable captions
15. Pagination, numbering of tables and illustration, numbers and dates in scientific write-ups
16. Editing and proof-reading
17. Writing of a review article.

References

1. Joseph G. 2000. MLA Handbook for Writers of Research Papers. 5th

- Ed. Affiliated East-West Press.
2. Mohan K. 2005. Speaking English Effectively. MacMillan India.
 3. Richard WS. 1969. Technical Writing. Barnes & Noble.
 4. Robert C. (Ed.). 2005. Spoken English: Flourish Your Language. Abhishek.
 5. Wren PC & Martin H. 2006. High School English Grammar and Composition. S.Chand & Co.

Objective

The objective of the course is to create awareness about intellectual property rights in agriculture. The course deals with management of patterns, trade marks, geographical indication, copy rights, designs, plant variety protection and bio diversity protection. The students will be taught on the marketing and commercialization of intellectual properties.

Theory

Unit - I: World trade organization - introduction

World Trade Organization - Agreement on Agriculture (AoA) and Intellectual Property Rights (IPR) - importance of intellectual property management - IPR and economic growth - IPR and bio diversity - major areas of concern in intellectual property management - technology transfer and commercialization - forms of different intellectual properties generated by agricultural research.

Unit - II: Patent document

Discovery *versus* invention - patentability of biological inventions - procedure for patent protection - preparatory work - record keeping, writing a patent document, filing the patent document - types of patent application - patent application under the Patent Cooperation Treaty (PCT).

Unit - III: Plant genetic resources

Plant genetic resources - importance and conservation - sui generic system - plant varieties protection and farmers' rights act - registration of extinct varieties - registration and protection of new varieties / hybrids / essentially derived varieties - dispute prevention and settlement - farmers' rights.

Unit - IV: Trademark

Trademark - geographical indications of goods and commodities - copy rights- designs - biodiversity protection.

Unit - V: Benefit sharing

Procedures for commercialization of technology - valuation, costs and pricing of technology - licensing and implementation of intellectual properties - procedures for commercialization - exclusive and non exclusive marketing rights - research exemption and benefit sharing.

Theory Schedule

1. World Trade Organization - Agreement on Agriculture (AoA) and Intellectual Property Rights (IPR)
2. Importance of intellectual property management - IPR and economic growth - IPR and bio diversity

3. Major areas of concern in Intellectual property management - technology transfer and commercialization
4. Forms of different intellectual properties generated by agricultural research
5. Discovery versus invention patentability of biological inventions
6. Procedure for patent protection
7. Preparatory work - record keeping, writing a patent document, filing the patent document
8. Types of patent application - patent application under the Patent Cooperation Treaty (PCT)

9. Mid semester examination

10. Plant genetic resources - importance and conservation
11. Sui generic system - plant varieties protection and farmers' rights act - registration of extant varieties
12. Registration and protection of new varieties / hybrids / essentially derived varieties - dispute prevention and settlement - farmers' rights
13. Trade mark - geographical indications of goods and commodities - copy rights - designs
14. Biodiversity protection
15. Procedures for commercialization of technology - valuation, costs and pricing of technology
16. Licensing and implementation of intellectual properties - procedures for commercialization
17. Exclusive and non exclusive marketing rights - research exemption and benefit sharing

References

1. Arun Goyal and Moor Mohamed, 2001. *WTO in the New Millennium*, Academy of Business Studies, New Delhi.
2. BilekDebroj, 2004. *Intellectual Property Rights*, BR World of books, New Delhi.
3. Ganguli, P., 2001. *Intellectual Property Rights - Unleashing the KnowledgeEconomy*, Tata McGraw Hill, New Delhi.
4. Narayanan, R., 2006. *Patent Law*, Eastern Law House, New Delhi.
5. Ramappa, T., 2000. *Intellectual Property Rights under WTO - Tasks before India*, Wheeler Publishing, New Delhi.

PGS 714: LIBRARY AND INFORMATION SERVICES (0+1)

Objective

To equip the library users with skills to trace information from libraries efficiently, to apprise them of information and knowledge resources, to carry out literature survey, to formulate information search strategies, and to use modern tools (Internet, OPAC, search engines etc.) of information search.

Practical

Introduction to library and its services; Role of libraries in education, research and technology transfer; Classification systems and organization of library; Sources of information- Primary -Sources, Secondary Sources and Tertiary Sources; Intricacies of abstracting and indexing services - (Science Citation Index, Biological Abstracts, Chemical Abstracts, CABI Abstracts, etc.); Tracing - information from reference sources; Literature survey; Citation techniques/Preparation of bibliography; Use of CD-ROM Databases, Online Public Access Catalogue and other computerized - library services; Use of Internet including search engines and its resources; e-resources access methods.

Practical Schedule

1. Introduction to library and its services
2. Role of libraries in education, research and technology transfer;
3. Classification systems and organization of library
4. Sources of information- Primary –Sources
5. Sources of information -Secondary Sources and Tertiary Sources
6. Intricacies of abstracting and indexing services
7. Science Citation Index, Biological Abstracts, Chemical Abstracts, CABI Abstracts, etc.);
8. Tracing - information from reference sources; Literature survey
9. Mid- Semester
10. Citation techniques/Preparation of bibliography;
11. Use of CD-ROM Databases,
12. Online Public Access Catalogue and other computerized - library services
13. Online Public Access Catalogue and other computerized - library services
14. Use of Internet including search engines and its resources
15. Use of Internet including search engines and its resources
16. e-resources access methods.
17. e-resources access methods.

PGS 725: DISASTER MANAGEMENT (1+ 0) (e-Course)

Objective

To introduce learners to the key concept and practice of mitigation for national disaster and calamities and to equip them to conduct thorough assessment of hazards, risks vulnerability and capacity building strategies.

Theory

Unit I – Natural disaster

Natural Disasters - meaning and nature of natural disasters, their types and effects. Floods, drought, cyclone, earthquakes, landslides, avalanches, volcanic eruptions, heat and cold waves.

Unit II – Climate change

Climatic change - Global warming, sea level rise, ozone depletion, Manmade disasters - Nuclear disasters, chemical disasters, biological disasters.

Unit III – Man – made disaster

Building fire, coal fire, forest fire, oil fire, air pollution, water pollution, deforestation, industrial waste water pollution, disaster management- efforts to mitigate natural disasters at national and global levels – India's key hazards, vulnerabilities and disaster response mechanisms in India.

Unit IV – Disaster warning, response and preparedness

Concept of disaster management, national disaster management framework; financial arrangements, role of NGOs, community-based organizations, and media - central, state, district and local administration. Dissemination of disaster warning, response to natural disasters, national, state, district level, relief – food and nutrition – water – health – mental health services.

Unit V – Rehabilitation

Rehabilitation – tolerant and resistant crops – resilient farming concepts – bio shield livelihood options – insurance and compensation – clothing and utensils and fuel – shelter – relief camp – sanitation and hygiene. Preparedness – Emergency Operations Centres (EOCS)

Theory Schedule

1. Natural Disaster - meaning and nature of natural disasters, their types and effects.
2. Flood, drought, cyclone, earthquakes landslides, avalanches, volcanic eruptions, Heat and cold waves.
3. Climatic change- Global warming, sea level rise, ozone depletion
4. Manmade disaster - Nuclear disasters, chemical disasters, biological disasters.
5. Building fire, coal fire, forest fire. oil fire.
6. Air pollution, water pollution, deforestation, industrial wastewater pollution.
7. Disaster management- efforts to mitigate natural disasters at national and global levels.

8. India's key hazards, vulnerabilities and disaster response mechanism in India.
9. **Mid-Semester examination**
10. Concept of disaster management, national disaster management framework.
11. Financial arrangements, role of NGOs, community-based organizations and media.
12. Central, state, district and local administration.
13. Dissemination of disaster warning - response to natural disasters, national, state, district level.
14. Relief – food and nutrition – water – health – mental health services.
15. Rehabilitation – tolerant and resistant crops- resilient farming concepts – bioshields - livelihood options – insurance and compensation.
16. Clothing and utensils and fuel – shelter – relief camp – sanitation and hygiene.
17. Preparedness – Emergency Operations Centers (EOCS).

References

1. Gautam, D R. 2009. *Community based disaster risk reduction*. Mercy Corps, Lalitpur, Nepal.
2. Gupta, HK. 2003. *Disaster management*. Indian National Science Academy. Orient Blackswan.
3. Hodgkinson, PE and Stewart, M. 1991. *Coping with Catastrophe: A handbook of disaster management*. Routledge.
4. Ministry of Home Affairs. 2010. *Standard operating procedure for responding to natural disasters*, Ministry of Home Affairs – Disaster management Division, New Delhi.
5. Sharma, VK. 2001. *Disaster management*. National Centre for Disaster Management, India.