KAKATIYA UNIVERSITY

B.SC I YEAR SEMESTER-I - CBCS

Ability Enhancement Compulsory Course (AECC)

ENVIRONMENTAL STUDIES

(2 hrs./week) **Credits – 2**

UNIT - I : Ecosystem, Biodiversity & Natural Resources **(15 hrs.)**

1. Definition, Scope & Importance of Environmental Studies.
2. Structure of Ecosystem – Abiotic & Biotic components Producers, Consumers, Decomposers, Food chains, Food webs, Ecological pyramids)
3. Function of an Ecosystem :Energy flow in the Ecosystem (Single channel energy flow model)
4. Definition of Biodiversity , Genetic,Species & Ecosystem diversity , Hot-spots of Biodiversity, Threats to Biodiversity , Conservation of Biodiversity (Insitu & Exsitu)
5. Renewable & Non – renewable resources, Brief account of Forest , Mineral & Energy (Solar Energy & Geothermal Energy) resources
6. Water Conservation , Rain water harvesting & Watershed management.

UNIT – II: Environmental Pollution , Global Issues & Legislation **(15 hrs.)**

1. Causes, Effects & Control measures of Air Pollution, Water Pollution
2. Solid Waste Management
3. Global Warming & Ozone layer depletion.
4. Ill – effects of Fire- works
5. Disaster management – floods, earthquakes & cyclones
6. Environmental legislation :-

(a) Wild life Protection Act (b) Forest Act (c) Water Act (d) Air Act

7. Human Rights
8. Women and Child welfare
9. Role of Information technology in environment and human health

❖ **Field Study:** **(5 hours)**

- Pond Ecosystem
- Forest Ecosystem

REFERENCES:

- Environmental Studies - from crisis to cure – by R. Rajagopalan (Third edition) Oxford University Press.
- Text book of Environmental Studies for undergraduate courses (second edition) by Erach Bharucha
- A text book of Environmental Studies by Dr.D.K.Asthana and Dr. Meera Asthana

Dr. G. SHAMITHA
Chairperson
Board of Studies
Department of Zoology & Sericulture Unit
KAKATIYA UNIVERSITY - WGL-506009 (T.S)

KAKATIYA UNIVERSITY

B.Sc. I YEAR SEMESTER-II

Ability Enhancement Compulsory Course (AECC)

Basic Computer Skills

FUNDAMENTALS OF COMPUTERS

Unit-I:

Introduction to Computers: what is a computer, characteristics of Computers, Generations of Computers, Classifications of Computers, Basic Computer organization, Applications of Computers. Input and Output Devices: Input devices, Output devices, Softcopy devices, Hard copy devices. Computer Memory and Processors: Introduction, Memory Hierarchy, Processor, Registers, Cache memory, primary memory, secondary storage devices, magnetic tapes, floppy disks, hard disks, optical drives, USB flash drivers, Memory cards, Mass storage devices, Basic processors architecture.

Unit-II:

Number System and Computer Codes: Binary number system, working with binary numbers, octal number system, hexadecimal number system, working with fractions, signed number representation in binary form, BCD code, and other codes. Boolean algebra and logic gates: Boolean algebra, Venn diagrams, representation of Boolean functions, logic gates, logic diagrams and Boolean expressions using karnaugh map. Computer Software: Introduction to computer software, classification of computer software, system software, application software, firmware, middleware, acquiring computer software, design and implementation of correct, efficient and maintainable programs.

Text: ReemaThareja, Fundamentals of Computers.

References

1. V.Rajaraman, 6th Edition Fundamentals of Computers, NeeharikaAdabala.
2. Anita Goel, Computer Fundamentals.

KAKATIYA UNIVERSITY
B.Sc. PROGRAMME
Under CBCS System wef A.Y: 2020-21
Second Year : : Semester- III

BS-302 / SEC-2: BIO STATISTICS

[2 HPW, #Credits: 2, Marks: 50 (Internal:10, External:40)]

Unit-I

Descriptive and Relational Statistics: Data collection and tabulation, Graphical representation of data, Measures of central tendency (Mean, Median and Mode) with simple applications, Measures of dispersion (Range, Quartile Deviation, Mean Deviation, Standard Deviation, Standard error and Coefficient of variation) with simple applications, Concept of Skewness and Kurtosis.

Concept of correlation, computation of Karl-Pearson correlation coefficient, Spearman' s rank correlation coefficient and Simple linear regression with simple applications,

Unit-II

Probability and Inferential Statistics: Basic concepts and Basic terms of probability, Mathematical, Statistical and Axiomatic definitions of probability Conditional probability and independence of events, Addition and multiplication theorems (Statements only) with simple applications. Statements and applications of Binomial, Poisson and Normal distributions.

Concepts of Population, Sample, Parameter, Statistic, Null and Alternative hypotheses, Critical region, two types of errors, Level of significance. Tests of significance based on goodness of fit, means, variances using χ^2 test, t-test, F-test and analysis of variance (ANOVA).

References:

1. Irfan Ali Khan and Atiya Khanum: Fundamentals of Bio Statistics, Ukaaz Publications, HYD.

2. V. K. Kapoor and S. C. Gupta: Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi.

3. V. K. Kapoor and S. C. Gupta: Statistical Methods, Sultan Chand & Sons, New Delhi.

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KAKATIYA UNIVERSITY - WARANGAL - TELANGANA
B.Sc. Programme under CBCS
With effect from the A.Y: 2019
Skill Enhancement Course- I
II Year
(Common to all Science Courses)
SEMESTER – III

FUNDAMENTALS OF NANO TECHNOLOGY

Theory: 2 Hours/Week; Credits: 2 Marks: 50 (Internal: 10; External: 40)

UNIT I:

Background to Nanotechnology:

Scientific revolution, molecular and atomic size, emergence of Nanotechnology, Challenges in Nanotechnology, Carbon age :(new forms of carbon graphene sheet to CNT)

Nucleation:

Macroscopic to microscopic crystals and nanocrystals, large surface to volume ratio, top-down and bottom-up approaches, self-assembly process, grain bounda volume in nanocrystals, defects in nanocrystals, surface effects on the properties.

UNIT- II:

Nano materials and properties:

Types of Nanostructure: one dimensional (ID), two dimensional (2D), three dimensional (3D) Nanostructured materials, Quantum dots, Quantum wire, Quantum sheet structures.

Carbon nanotubes (CNT), Metals (Au, Ag), Metal oxides(TiO2,Zno), semiconductors (Si, Ge, CdS, ZnSe), Ceramics and composites, Biological system, DNA, RNA, Lipids, Size dependent properties, mechanical, physical and chemical properties.

Applications of Nanomaterials:

Molecular electronics and nano electronics, Quantum electronic devices, CNT based transistor and Field emission Display, biological applications, Biochemical sensor, Membrane based water purification.

Reference books:

1. Nanotechnology: Basic science and emerging technologies, M.Wilson, K.Kannangara, G. Smith, Overseas Press India PVT.LTD,NEW DELHI:
2. The chemistry of Nanomaterials: Synthesis, properties & applications. C.N.R.Rao, A.Muller, Wiley
3. Nano structures and Nano materials: Synthesis, properties and applications by Guozhong Cao, Imperial College press.
4. Hari Singh Nalwa, Handbook of nanostructured materials &nanotechnology optical properties.
5. Nano fabrication towards biomedical applications, C.S.S.R.Kumar, Wiley-VCH Verlag GmbH & Co, Weinheim.

Mrs. G. Manjula, Chairperson, BoS

Prof. B. Venkatram Reddy, HoD

KAKATIYA UNIVERSITY,WARANGAL
B.Sc. Programme
Under CBCS System wef A.Y: 2020-21
Second Year :: Semester - IV
BS-402/ SEC-4 (Common to all Science Courses)

Remedial Methods of Pollution - Drinking Water & Soil Fertility

[2HPW, #Credits: 2, Marks:50 (Internal:10, External:40)]

(Taught by: Chemistry Department)

UNIT I: Remedial Methods for Pollution:

Prevention and control of air pollution: Ozone hole - Causes and harm due to ozone depletion, Effect of CFC's in Ozone depletion and their replacements, Global Warming and Green-house effect, Precaution measures to control global warming, Deleterious effect of pollutants, Endangered monuments, Acid rain, Precautions to protect monuments, Sources of Radiation pollution, Chernobyl accident and its consequences. Radiation effect by usage of cell phones and protection tips, Deleterious effects of cell phone towers and health hazards.

Sources of water pollution: (i) Pollution due to pesticides and inorganic chemicals,
(ii) Thermal pollution (iii) Ground water pollution (iv) Eutrophication.
Methods for control of water pollution and water recycling: Dumping of plastics in rivers and oceans and their effect on aquatic life, Determination of (i) Dissolved oxygen and
(ii) Chemical Oxygen demand in polluted water, Illustration through charts (or) demonstration of experiments,

Sources of soil pollution: (i) Plastic bags (ii) Industrial and (iii) Agricultural sources, Control of soil pollution, Environmental laws in India, Environmental benefits of planting trees.

UNIT II: Drinking Water and Soil Fertility Standards and Analysis:

Water quality and common treatments for private drinking water systems, Drinking Water Standards: 1. Primary drinking water standards: Inorganics, Organics and Volatile Organic Chemicals, 2. Secondary drinking water standards: Inorganics and Physical Problems, Water testing, Mineral analysis, Microbiological tests, Pesticide and Other Organic Chemical Tests, Principle involved in Water Treatment Techniques: (i) Reverse Osmosis (ii) Disinfection methods such as Chlorination, Ultraviolet light, ozonation etc… (iii) Chemical oxidation and iv) Ion exchange (water softeners). Visit to nearby drinking water plants and interaction at sites.

Introduction to Soil Chemistry: Basic Concepts. Effect of P^H on nutrient availability, Macronutrients and their effect on plants, Carbon, Hydrogen, Oxygen, Nitrogen and Phosphorus, other macronutrients, Calcium, Magnesium and Sulfur, Micronutrients and their effect on plants, Boron ($B_4O_7^{2-}$), Copper (Cu^{2+}), Iron (Fe^{2+}, Fe^{3+}), Manganese (Mn^{2+}), Molybdenum (MoO_4^{2-}), Zinc (Zn^{2+}), Cobalt (Co^{2+}), Chlorine (Cl^-) and others. Determination of soil nitrogen by Kjeldahl method, Illustration through charts and demonstration of experiment, Visit to nearby agricultural forms and interaction with farmers, Discussion with farmers on the use of 'Soil Analysis Kits'.

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KAKATIYA UNIVERSITY - WARANGAL - TELANGANA
B.Sc. Programme under CBCS
With effect from the A.Y: 2019
Skill Enhancement Course- III
II Year
(Common to all Science Courses)
SEMESTER – IV

Fundamentals of Python

Theory: **2 Hours/Week;** **Credits: 2** **Marks: 50 (Internal: 10; External: 40)**

Unit – I

Introduction to Python Programming: How a Program Works, Using Python, Program Development Cycle, Input, Processing, and Output, Displaying Output with the Print Function, Comments, Variables, Reading Input from the Keyboard, Performing Calculations (Operators. Type conversions, Expressions), More about Data Output. Decision Structures and Boolean Logic: if, if-else, if-elif-else Statements, Nested Decision Structures, Comparing Strings, Logical Operators, Boolean Variables. Repetition Structures: Introduction, while loop, for loop, Calculating a Running Total, Input Validation Loops, Nested Loops.Lists and Tuples: Sequences, Introduction to Lists, List slicing, Finding Items in Lists with the in Operator, List Methods and Useful Built-in Functions, Copying Lists, Processing Lists,

Unit – II

Tuples- operations on tuples, Strings: Basic String Operations, String Slicing, Testing, Searching, and Manipulating Strings. Dictionaries and Sets: Dictionaries, Sets- operations on sets and Dictionaries.
Functions: Introduction, Defining and Calling a Void Function, Designing a Program to Use Functions, Local Variables, Passing Arguments to Functions, Global Variables and Global Constants, Value-Returning Functions- Generating Random Numbers, Writing Our Own Value-Returning Functions, The math Module, Storing Functions in Modules. File and Exceptions: Introduction to File Input and Output, Using Loops to Process Files, Processing Records, Exceptions.

Text Book:

Tony Gaddis, Starting Out With Python (3e)

References:

1. Kenneth A. Lambert, Fundamentals of Python
2. Clinton W. Brownley, Foundations for Analytics with Python
3. James Payne, Beginning Python using Python 2.6 and Python 3
4. Charles Dierach, Introduction to Computer Science using Python
5. Paul Gries, Practical Programming: An Introduction to Computer Science using Python 3

KAKATIYA UNIVERSITY, WARANGAL-506 009
B.Sc. Under CBCS System wef A.Y: 2021-22
Third Year : : Semester - V
GENERIC ELECTIVE (Common to all students)

WATER RESOURCES MANAGEMENT

(4 hrs/week) (Taught by ant Science Dept) (Credits:4) (Marks:100)

UNIT-I:

Introduction to water resources management, different types of water resources, water resources and its importance, Global distribution of water. Hydrological cycle, Conservation of water, recycling of water.

Unit-II:

Rain water harvesting, methods of roof top rain water harvesting in urban setting: Direct method - Storing rain water in tanks for direct use; indirect methods - Recharge pits, bore wells/dug wells, Recharge trenches. Over use of surface and ground water and control measures.

UNIT-III:

Importance of water shed and water shed management, Rain water harvesting in rural setting: Check dams, percolation tanks, gabion structure, continuous contour trenches, staggered contour trenches, farm ponds. Surface water and ground water pollution, control measures.

UNIT-IV :

Mission Bhagiratha: Telangana government water grid project for drinking water supply - aims and objectives and method of implementation.Mission Kakatiya: Telangana government project for the restoration of minor irrigation tanks, aims and objectives and method of implementation.

Text books:

1) Water Resources, Conservation and Management by Chatterjee, S.N.
2) Groundwater hydrology by Todd
3) Watershed management by J.V.S.Murthy
4) Applied Hydrogeology by Fetter.

KAKATIYA UNIVERSITY - WARANGAL - TELANGANA
B.Sc. Programme under CBCS
With effect from the A.Y: 2019
Optional Paper
(Common to all Science Courses)
III Year SEMESTER – VI

PUBLIC HEALTH AND HYGIENE

UNIT-I: Nutrition, Environment and Health

1.1 Classification of foods – Carbohydrates, Proteins, Lipids and Minerals.
1.2 Nutritional deficiencies and disorders of Carbohydrates, Proteins, Lipids and Minerals.
1.3 Concept, Steps and Applications of Environment and Health Impact Assessment.
1.4 Industrial, Agricultural and Urban Health. Environmental Pollution and Associated Health Hazards.

UNIT-II : Communicable and Non-Communicable Diseases

2.1 Causes, symptoms, diagnosis, treatment and prevention of Communicable Diseases (Malaria, Filaria, Tuberculosis and AIDS).
2.2 Causes, symptoms, diagnosis, treatment and prevention of Non-Communicable Diseases (Hypertension, Coronary Heart Diseases, Diabetes and Obesity).
2.3 Symptoms, treatment and prevention measures of Water Borne Diseases (Diarrhea, Typhoid, Hepatitis and Amebiasis).
2.4 Symptoms, treatment and prevention measures Air Borne Diseases (COVID-19, Influenza, Whooping couph and Chickenpox).

UNIT-III :Food and Diet Systems

3.1 Definition of Food, Types of foods (Texturized foods, Novel foods and Organic foods).
3.2 Food safety system and issues; Physical, chemical and microbiological contaminants; The significance of foodborne diseases.
3.3 Principles of diet in diseases, Classification of diets according to nutrients.
3.4 Etiology, Symptom and Dietary Management in Obesity, Underweight, Hypertension, Diabetes Mellitus, Atherosclerosis.

UNIT-IV : Personal Hygiene and Sanitation

4.1 Definition of Hygiene and Sanitation, Personal Hygiene of food handler, Techniques of Washing Hands, Pest control and Garbage Disposal.
4.2 Definition of Public Health, Hygiene, Social and Preventive Medicine, Basic aspects of Personal Hygiene and Disposal of Waste.
4.3 The Hygiene Practices of the different categories of family members (children, parents and aged members)
4.4 Definition of Sanitation, Environmental Sanitation, Sanitation of Food Serving Institution, The importance of proper sanitation practices.

Suggested Readings:

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KAKATIYA UNIVERSITY - WARANGAL - TELANGANA

Under Graduate Courses (Under CBCS 2020 – 2021 onwards)

B.A. II YEAR SEMESTER - III

SKILL ENHANCEMENT COURSE -I

PAPER – SEC1: PROJECT PLANNING AND REPORT WRITING

(SEC – I Common to all Social Sciences courses)

Theory: 2 Hours/Week; **Credits:** 2 **Marks:** 50 (Internal: 10; External: 40)

Unit-I: Project: Meaning – Design/Typology - Project Life Cycle - Project Workplan - Timeframe – Budgeting. Source of Data - Methods and Tools of Data Collection
- Data Classification and Analysis – Drawing Inferences. Project Monitoring and Appraisal/Evaluation.

Unit-II: Report Writing: Purpose, Audience, Format and Deadline; Selecting and Organizing Material - Classifying Writing Notes, Information Sequence – Ordering - Headings. Tones and Styles - Review and Peer Review - Plagiarism – Project Publishing – Checklists/Appendices.

References:

1. Lawrence Nueman - Social Research Methods, Pearson Publications, Delhi
2. David Evans et al (2014): How to Write a Better Thesis, Springer, Berlin.
3. Janathan Anderson, Berry H. Durston and Millicent Poole (1971): Thesis and Assignment Writing, Wiley Eastern Private Limited, New Delhi
4. Kathryn G. Herr & Gary L. Anderson - The Action Research Dissertation: A Guide for Students and Faculty, Sage Publications, New Delhi.
5. John W Creswell -Research Design: Qualitative, Quantitative and Mixed Methods Approaches, Sage Publications.
6. Fred Pyrczak – Making Sense of Statistics: A Conceptual Overview, Pyrczak Publishing, Glendale, CA
7. Fred Pyrczak – Writing Research Reports: A Basic Guide for Students of the Social and Behavioral Sciences, Pyrczak Publishing, Glendale, CA
8. Peg Boyle Single - Demystifying Dissertation Writing: A Streamlined Process from Choice of Topic to Final Text, Stylus Publishing, VA, USA

KAKATIYA UNIVERSITY - WARANGAL - TELANGANA

Under Graduate Courses (Under CBCS 2020 – 2021 onwards)

B.A. II YEAR SEMESTER – III

SKILL ENHANCEMENT COURSE -II

ENTREPRENEURSHIP AND DEVELOPMENT

(SEC – II Common to all Social Sciences courses)

Theory: 2 Hours/Week; Credits: 2 Marks: 50 (Internal: 10; External: 40)

Module-I

Basic Issues of Entrepreneurship and Economic Development

Basic features of Entrepreneurship - Entrepreneurship and its linkages with economic development - Growth of entrepreneurship in India - Role of entrepreneurship in Economic Development and problems of rural entrepreneurship in India.

Module-II

Financial Resources for new ventures of an entrepreneur:

Source of finance - capital structure - Institutional support to enterprises- National Small Industries Board- State Small Industries Development Corporation- District Industrial estates- Indian Experience, Stages of growth, types of growth strategies of expansion, Diversification - joint venture, merger and subcontracting.

References:

1. S.S. Khanka Entrepreneurial Development, S Chand & Company Ltd.
2. David. H. Holt- Entrepreneurship New Venture Criterion
3. Poornima M. Entrepreneurship Development and Small Business Enterprises (2nd Edition Pearson)
4. Datt and Sundaram (Revised by A. Mahjan), Indian Economy, 70th Edition, S Chand.

KAKATIYA UNIVERSITY - WARANGAL - TELANGANA

Under Graduate Courses (Under CBCS 2020 – 2021 onwards)

B.A. II YEAR SEMESTER – IV

SKILL ENHANCEMENT COURSE - III

FORMS OF JOURNALISTIC WRITING

(SEC – III Common to all Social Sciences)

Theory: 2 Hours/Week; Credits: 2 Marks: 50 (Internal: 10; External: 40)

Objectives:

- *To impart journalistic skills to the students.*
- *To enable and inspire the students to write for newspapers.*
- *To introduce different forms of writing.*

Learning Outcomes:

After completion of the course, the student will be able to:

- *Identify different types and elements of the news.*
- *Understand subjectivity and objectivity in writing.*
- *Write in different forms..*

Unit 1

News – Soft and Hard news; News Writing – Spot news/Live news, in depth, investigative, interpretative. Structure/Format – Inverted, Hour glass, Stacked; Elements – Objectivity, Fairness, Balance, Attribution, Quotations, partial quotations, full quotations, direct and indirect quotes; basics of writing for news websites, portals.

Unit 2

Subjectivity in writing – features-types (interviews, profiles, historical features, travelogues, how to do features, middles), articles, edit page articles, editorials, reviews, criticism, columns, blogs.

KAKATIYA UNIVERSITY - WARANGAL - TELANGANA

Under Graduate Courses (Under CBCS 2020 – 2021 onwards)

B.A. II YEAR SEMESTER – IV

SKILL ENHANCEMENT COURSE - IV

RURAL POLITICS AND LEADERSHIP TRAINING

(SEC – III Common to all Social Sciences)

Theory: 2 Hours/Week; Credits: 2 Marks: 50 (Internal: 10; External: 40)

Syllabus

Course: Rural Politics and Leadership

Unit I:

1. Grass root Politics and Democracy
2. Rural Institutions, Governance and Politics
3. Rural Politics, Regional Politics and National Politics-Linkages

Unit II:

1. Rural Leadership – Nature and Characteristics
2. Social Bases of Rural Leadership
3. Gender and Rural Leadership
4. Rural Leadership, Regional Leadership and National Leadership: Linkages.

Suggested Readings:

1. A. R. Desai, Rural Sociology in India, Sage.
2. Lucia Michelutti, The Vernacularisation of Democracy, Routledge.
3. Ch Balaramulu, Marginalised Communities and Decentralised institutions in India, Routledge.
4. B. S Bhviskar, Two Views of Social Change in Rural India, Sage.
5. K. L. Sharma, Caste, Social Inequality and Mobility in Rural India.
6. Ram Ahuja, Social Problem in India
7. Madan, The Village in India
8. Niraja Gopal Jayal, The Oxford Companion to Politics in India, OUP
9. Chatterjee Partha, State and Politics in India, OUP.

This is for your information and necessary action

Thanking you

Yours faithfully

Copy to

1. Academic Branch

21/6/24

Prof. G. Veeranna
M.A.M.Ed.M.Phil.Ph. D
HEAD & CHAIRMEN BOS
Department of Political Science
Kakatiya University, Warangal
Telangana State - 506 009

KAKATIYA UNIVERSITY - WARANGAL - TELANGANA

Under Graduate Courses (Under CBCS 2019–2022)

B.A. GENERIC ELECTIVE III YEAR

SEMESTER – V

GOOD GOVERNANCE

(G. E. Common all Social Sciences courses)

4 Hours/Week Credits: 4 Marks: 100 (Internal: 20; External: 80)

Course Objective

The word 'Governance' appears in diverse academic disciplines. At general level, governance refers to theories and issues of social coordination and the nature of all patterns of rule. The theories of governance have changed the understanding of various concepts of state and its institutions. New jargon of words emerged into the social science literature with different connotations. In this background, the present course is aimed to provide an in-depth understanding of the basic tenets and trends of Good Governance.

Unit - I: Introduction

a) Meaning and Definitions of Governance
b) Government and Governance
c) Concepts of Good Governance

Unit – II: Citizen and Governance

a) Rule of Law and Human Rights
b) Accountability
c) Participation

Unit - III: Techniques of Good Governance

a) Openness and Transparency
b) Citizen Charter
c) Social Audit

Unit - IV: Emerging Trends

a) Public and Private Governance
b) Good Governance and Civil Society
c) ICT and Good Governance

References:

Bell, S., and Hindmoor, A. (2009) Rethinking Governance: The Centrality of the State in Modern Society, Cambridge: Cambridge University

Bell, Stephen and Andrew Hindmoor. (2009) Rethinking Governance: The Centrality of th e State in Modern Society. Cambridge: CUP.

Bevir, Mark (2009), Key Concepts in Governance, Sage, London.

Bevir, Mark, ed. (2010) The Sage Handbook of Governance. Thousand Oaks, CA: Sage

Bovaird, Tony and Elke Löffler, eds. (2009) Public Manage ment and Governance, Routledge. Farazmand, Ali and Jack Pinkowski, eds. (2006) Handbook of Globalization, Governance, and Public Administration. London: CRC / Taylor & Francis.

Hajer, Maarten, and Hendrik Wagenaar (2003) "Introduction. " In Deliberative Policy Analysis: Kjaer, A (2004) Governance. Cambridge, UK: Polity Press.

Kooiman, Jan ed. (1993) Moder n Governance: New Government -Society Interactions. London: Sage.

Kooiman, Jan. (2003) Governing as Governance. London: Sage.