

Course title: Social, Economic and Health dimensions of Water, Sanitation and Hygiene				
Course code: WSW 177		No. of credits: 3	L-T-P: 40-2-0	Learning hours: 42
Pre-requisite course code and title (if any): Basic knowledge of Economics and Social Science				
Department: Department of Regional Water Studies				
Course coordinator: Dr. Sukanya Das		Course instructor(s): Dr. Prashant Kumar Singh, Dr. Swarup Dutta, Dr. Sukanya Das		
Course type: Elective		Course offered in: 3 rd Semester		
Course Description				
Water, sanitation and hygiene (WASH) is very closely linked to quality of life. Safe water access, suitable sanitation and appropriate hygiene knowledge help in reduction of prevalence of disease, resulting in better health conditions leading to overall socio-economic development of society. The course aims to provide an understanding of socio-economic and health dimensions of WASH.				
Course objectives				
<ul style="list-style-type: none"> ▪ To understand the global and local context of WASH and health. ▪ To understand socio-economic and cultural factors of WASH in developing countries. ▪ To understand the concept of community participation and its role in the context of sustainable development. ▪ To understand the approaches for economic valuation in health WASH ▪ To comprehend appropriate policy prescriptions related to WASH 				
Course Contents				
Module	Topic	L	T	P
1.	Introduction to WASH and Social issues WASH: concept and definition; historical perspective - Indus valley civilization, concept of water and sanitation in Biblical times, decline of sanitation in the middle ages, WASH in pre- and post-colonial period in India, developments and incentives; social movements in water and sanitation in India; relevance – sustainable development goals (SDGs) & quality of life in WASH context; delineation and geospatial aspects in WASH Access to WASH services; discrimination towards specific social groups in WASH related services (gender, ethnicity, caste and class.); Gender and WASH; interlinkages between WASH and gender equity; WASH and human rights; role of state and non-state actors	10		
2.	WASH, Health and Nutrition Defining the problem: relationship between WASH and health in context of demographic, socioeconomic and environmental perspectives ; WASH and - global burden of disease in the Indian context, its implications with respect to health & disease, mortality; health impacts of low cost WASH interventions; improving quality of care through WASH Facility Improvement Tool (WHO-WASH FIT); value-chain analysis Direct and indirect linkages between WASH related factors and child nutrition; nutritional morbidity in all population groups; multi-sectoral approach in addressing WASH and nutrition (case studies from South Asian countries)	10		
3.	WASH and Economics Introduction: disease control strategies for water, sanitation and hygiene intervention, inequities in regard to accessibility to WASH; approaches for economic valuation to health and application in WASH–cost effectiveness analysis: concepts of utility measurement, concept of DALY, QALY; comparing cost benefit and cost effectiveness analysis: methodology of social cost benefit analysis and application in WASH – foundations of cost benefit analysis and investment, aggregation in cost benefit analysis; time preference–private and social; net present value; internal rate of return on investment; payback period; choice of discount rate; shadow prices, weights: aggregation across agents; project valuation and uncertainty identification of relevant costs and benefits; UNIDO /World Bank/JICA;	10	2	

4	Different options for financing WASH programmes Health care in India in regard to WASH – Various health indicators in relation to WASH and its recent trend, health care expenditures, target of health care and achievements, different options for financing healthcare, taxation, user fees; policies in urban water and sanitation, urban area landscaping-socio economic aspects of WASH	8		
		40	2	0
Evaluation procedure				
<ul style="list-style-type: none"> ▪ Minor 1: 20% ▪ Minor 2: 20% ▪ Term paper: 20% ▪ Major examination: 40% 				
Learning outcomes				
At the end of the course, the students will be able to				
<ul style="list-style-type: none"> ▪ Explain the linkages between WASH and various socio-economic aspects ▪ Understand the global and regional issues of WASH and health ▪ Develop analytical skill to analyse WASH related issues ▪ Assess the right-based approach of WASH in larger policy framework ▪ Perform economic analysis of WASH issues 				
Pedagogical approach				
Classroom teaching will involve black board, power point presentations and case study analysis. Interactive sessions, including field visits will be held on management of WASH issues with various stakeholders.				
Suggested Readings				
<p>Bateman, I.J. and Willis, K.J. (eds.) (1999). <i>Valuing Environmental Preferences: Theory and Practice of the Contingent valuation method in the US, EU, and developing countries</i>. Oxford University Press, Oxford.</p> <p>Culyer, A. J. and Newhouse, J.P. (eds.) (2000). <i>Handbook of Health Economics</i>. Volumes 1A & B, North-Holland.</p> <p>Folland, S., Goodman, A.C. and Stano M. (2006). <i>Economics of Health and Health Care</i>, Pearson Prentice Hall.</p> <p>Saxena, A. (2015). <i>Sociology of Sanitation – Themes and Perspective</i>. Young Publishers, India.</p> <p>Saxena, A. (ed) (2013). <i>Marginality, exclusion and Social Justice</i>. Rawat Publishers, India.</p> <p>Smith, V. Kerry (1997). <i>Estimating Economic Values for Nature: Methods for Non-Market Valuation</i>, Brookfield: Edward Elgar.</p> <p>Zweifel, P. (1997). <i>Health Economics</i>. Oxford University Press.</p> <p>Curtis, V., & Cairncross, S. (2003). Effect of washing hands with soap on diarrhoea risk in the community: a systematic review. <i>The Lancet Infectious Diseases</i>, 3(5), 275-281.</p> <p>Lee, L. F., Rosenzweig, M. R., & Pitt, M. M. (1997). The effects of improved nutrition, sanitation, and water quality on child health in high-mortality populations. <i>Journal of Econometrics</i>, 77(1), 209-235.</p> <p>Moe, C. L., & Rheingans, R. D. (2006). Global challenges in water, sanitation and health. <i>Journal of Water and Health</i>, 4(S1), 41-57.</p>				
Additional information (if any)				
There are certain portions within the syllabus for which there are no standard texts and are required to be covered through original research articles, published WHO and state of environment reports and case studies. The relevant reference from various WHO reports, state of environment reports, research papers for case studies would be separately provided				
Student responsibilities				
The students are expected to submit assignments in time and come prepared with readings when provided.				

Course Reviewers

1. Dr Ashish Saxena, Professor and Head, Department of Sociology, Allahabad University, Allahabad.
2. Dr. Wangshimenla Jamir, Associate Professor, Department of Geography, University of Nagaland.
3. Dr Pranjali Deekshit, Assistant Professor, Water Policy, Tata Institute of Social Sciences.