

GENERAL CURRICULAM
RAYAGADA AUTONOMOUS COLLEGE, RAYAGADA
AECC-ENVIROMENTAL STUDIES

Program Learning Outcomes of AECC- Environmental Science

1. Ability to recognize the need for learning the topic and develop foundational knowledge on the topic.
2. Ability to develop critical thinking and problem solving skills to solve interdisciplinary issues related to the topic.
3. Ability to understand the relationships between natural and man-made systems.
4. 4 Ability to apply statistical methods, ICT and innovative techniques in classroom, field and laboratory to analyze scientific data.
5. Ability to develop lifelong learning and professional skills
6. Ability to design and execute a scientific project, write scientific reports, develop research and communication skills.
7. Ability to spread awareness about the environment around us, sustainable development and conduct outreach activities.
8. Ability to gain empirical knowledge on the topic and contribute in decision making processes.

Course Learning Outcomes

The course will empower the undergraduate students by helping them to: i. Gain in-depth knowledge on natural processes that sustain life, and govern economy, ii. Predict the consequences of human actions on the web of life, global economy and quality of human life. iii. Develop critical thinking for shaping strategies (scientific, social, economic and legal) for environmental protection and conservation of biodiversity, social equity and sustainable development. iv. Acquire values and attitudes towards understanding complex environmental-economicsocial challenges, and participating actively in solving current environmental problems and preventing the future ones. v. Adopt sustainability as a practice in life, society and industry.

Knowledge & Understanding

Demonstrate extensive and systematic acquaintance of the disciplinary foundation in the various areas of Environmental Science. Insightfully address the contemporary research and development at both national and international arena. Understand and engage in the field of Environmental Sciences and its allied areas.

Skills & Techniques

Show ability to apply scientific knowledge & experimental skills in critical and organized manner for evaluation and elucidation of complex environmental problems and issues related to terrestrial ecosystems; physical environment; air and water.

GENERAL CURRICULAM

SEC-COMMUNICATIVE ENGLISH

This course aims at enhancing the English language proficiency of undergraduate students in humanities, science and commerce streams to prepare them for the academic, social and professional expectations during and after the course. The course will help develop academic and social English competencies in speaking, listening, pronunciation, reading and writing, grammar and usage, vocabulary, syntax, and rhetorical patterns. Students, at the end of the course, should be able to use English appropriately and effectively for further studies or for work where English is used as the language of communication.

LEARNING OUTCOMES

- To heighten their awareness of correct usage of English grammar in writing and speaking.
- To improve their speaking ability in English both in terms of fluency and comprehensibility.
- To give oral presentations and receive feedback on their performance.
- To increase their reading speed and comprehension of academic articles.
- To improve their reading fluency skills through extensive reading.
- To enlarge their vocabulary by keeping a vocabulary journal.
- To strengthen their ability to write academic papers, essays and summaries using the process approach.
- To review the grammatical forms of English and the use of these forms in specific communicative contexts, which include: class activities, homework assignments, reading of texts and writing.
- To attain and enhance competence in the four modes of literacy: writing, speaking, reading and listening.
- To develop their ability as critical readers and writers.
- To produce a short research paper using the drafting process.
- To develop reading skills and reading speed.
- To read university texts and expand their vocabulary.
- To read for intensive information retrieval and interpretation required by university studies.
- To develop abilities as critical thinkers, readers and writers.
- To attain and enhance competence in the four modes of literacy: writing, speaking, reading & listening.
- To write 3 summaries in which they will communicate appropriately, accurately and effectively what has been read.
- To achieve these outcomes through the development of the following skills: focused reading skills work and exams; discussions of longer articles; and summary writing including the drafting process.
- To paraphrase information from outside sources effectively and accurately

- To summarize information from academic sources, distinguishing between main ideas and details.
- To use online library databases to locate appropriate academic sources.
- To write two academic essays in which they demonstrate their understanding of writing as a series of tasks, including finding, evaluating, analyzing and synthesizing sources and as a process that involves planning, drafting, revising and editing.
- To apply the conventions of APA documentation and be aware of how to avoid plagiarism.
- To practice writing through assignments that ask you to plan, draft, revise and edit your essays over time.
- To produce three substantial essays that you can be proud of: clear, organized, sophisticated, well-researched, and polished.
- To develop your abilities as a critical reader and writer.
- Understand the demands of academic research at UW-Madison, which means learning about our libraries and the print and electronic sources there and learning to develop good questions, find relevant sources, evaluate those sources and integrate them thoughtfully, responsibly, and ethically in your own writing.
- To develop your public speaking abilities by giving you opportunities to speak in class, both informally and formally.
- To increase your self-awareness about the English language and the culturally-bound conventions of American academic writing.

[Signature]
 Principal 3/2/21
 Rayagada (Aut.) College
 Rayagada

ଓଡ଼ିଆ ଭାଷା ଓ ସାହିତ୍ୟ ବିଭାଗ

ରାୟଗଡ଼ ସ୍ୱୟଂ ଶାସିତ ମହାବିଦ୍ୟାଳୟ, ରାୟଗଡ଼

ପାଠ୍ୟ ଖସଡ଼ାର ଉଦ୍ଦେଶ୍ୟ ଓ ତାହାର ଫଳାଫଳ ସମ୍ବନ୍ଧରେ NAAC ପାଇଁ ପ୍ରସ୍ତୁତି ।

ଉଦ୍ଦେଶ୍ୟ- ସ୍ୱାତନ୍ତ୍ର ଶ୍ରେଣୀରେ ଓଡ଼ିଆ ଭାଷା ଓ ସାହିତ୍ୟ ସମ୍ବନ୍ଧୀୟ ପାଠଦାନ ନିମନ୍ତେ ଏହି ପାଠ୍ୟଖସଡ଼ାଟି ପ୍ରସ୍ତୁତ ହୋଇଛି । ଏହାର ପ୍ରସ୍ତୁତି କ୍ଷେତ୍ରରେ ବିଶ୍ୱବିଦ୍ୟାଳୟ ଆୟୋଗଙ୍କ ପ୍ରାୟୋଜିତ ପସନ୍ଦ ଓ ଆହ୍ୱାନିତ୍ୱିକ ନୂତନ ପାଠ୍ୟବିନ୍ୟାସ ପଦ୍ଧତିକୁ ଗ୍ରହଣ କରାଯାଇଛି । ଏହି ପାଠ୍ୟଖସଡ଼ାଟି ସଦ୍ୟତମ ଭାଷା-ସାହିତ୍ୟ ସମ୍ବନ୍ଧୀୟ ଜ୍ଞାନ ବ୍ୟବହାର ଓ ଚଳଚ୍ଚିତ୍ର ସମୟର ଉପଯୋଗିତାକୁ ଚାହିଁ ପ୍ରସ୍ତୁତ ହୋଇଛି । ଏହା ଓଡ଼ିଆ ଭାଷା ଓ ସାହିତ୍ୟର ଉନ୍ନେଷ, ବିକାଶ ସହିତ ଏହାର ସାଂପ୍ରତିକ ସ୍ଥିତି, ବ୍ୟାକରଣ ଓ ଭାଷାତାତ୍ତ୍ୱିକ ବୈଶିଷ୍ଟ୍ୟ ସମ୍ପର୍କରେ ସବିଶେଷ ଧାରଣା ପ୍ରଦାନ କରିବ । ଓଡ଼ିଆ ସାହିତ୍ୟର ବ୍ୟାବହାରିକ ଦିଗ ଓ ମହତ୍ତ୍ୱ ପ୍ରତି ଏଥିରେ ଧ୍ୟାନ ଦିଆଯାଇଛି । ଓଡ଼ିଆ ସାହିତ୍ୟର ବିବିଧ ରୂପ, ସାହିତ୍ୟ-ଧାରା ଓ ବିଶିଷ୍ଟ ସାହିତ୍ୟ-ଲେଖକଙ୍କ ବହି ସହିତ ବିଦ୍ୟାର୍ଥୀଙ୍କୁ ଅବଗତ କରିବାରେ ପାଠ୍ୟଖସଡ଼ାଟି ସହାୟକ ।

ଫଳାଫଳ- ଓଡ଼ିଆ ଭାଷା ଓ ସାହିତ୍ୟକୁ ସର୍ବଭାରତୀୟ ଭାଷା ଓ ସାହିତ୍ୟ ତଥା ଅନ୍ତର୍ଜାତୀୟ ସାହିତ୍ୟ ବିଦ୍ୟା ସହିତ ବିଦ୍ୟାର୍ଥୀମାନଙ୍କୁ ପରିଚିତ କରାଇବାରେ ଏହା ବିଦ୍ୟାର୍ଥୀଙ୍କ ଉପଯୋଗୀ ହୋଇପାରିବ ।

Semester	Paper Code	Title of the Course	Course Objective	Course Outcome
2	AECC Course -1	ଯୋଗାଯୋଗ ଅନୁକ୍ରମ, ରୀତି ଓ ମାଧ୍ୟମ	ବିଭିନ୍ନ ସ୍ତରରେ ଆବଶ୍ୟକ ଅନୁଷ୍ଠାନରେ ସମସାମୟିକ ପରିସ୍ଥିତିକୁ ନେଇ ଭାବ ବିନିମୟ ଓ ପାରସ୍ପରିକ ଯୋଗାଯୋଗ ସ୍ଥାପନ କିପରି ଓଡ଼ିଆ ଭାଷାରେ ସହଜରେ, ସରଳରେ ହୋଇପାରିବ - ଏ ଦିଗ ପ୍ରତି ଏଥିରେ ଧ୍ୟାନ ଦିଆଯାଇଛି ।	ଯୋଗାଯୋଗ ପାଠ୍ୟକ୍ରମ ଦ୍ଵାରା ଛାତ୍ରଛାତ୍ରୀଙ୍କ ବୌଦ୍ଧିକ ପାଠ୍ୟ ରିତି ମାଧ୍ୟମରେ ସାହିତ୍ୟିକ, ସାମାଜିକ, ଭାଷା ବହୁ ମୁକ୍ତ ଉଦ୍ଦେଶ୍ୟ ସଂପର୍କରେ ଜ୍ଞାନର ପରିବର୍ଦ୍ଧନ ହୋଇଥାଏ ।

ପାଠ୍ୟକ୍ରମର ଉଦ୍ଦେଶ୍ୟ ଓ ତାହାର ଫଳାଫଳ

Semester	Paper Code	Title of the Course	Course Objective	Course Outcome
1	Core Course-1	ପ୍ରାଚୀନ ଓଡ଼ିଆ ସାହିତ୍ୟ	୧. ପ୍ରାଚୀନ ଓଡ଼ିଆ ସାହିତ୍ୟ ପାଠ୍ୟ ମାଧ୍ୟମରେ ଛାତ୍ର ଛାତ୍ରୀମାନେ କର୍ମାପଦ ଠାରୁ ପଞ୍ଚସଖା ପର୍ଯ୍ୟନ୍ତ ଓଡ଼ିଆ ଭାଷାର ବିକାଶ ସମ୍ପର୍କରେ ଅବଗତ ହୋଇପାରନ୍ତି ।	ପ୍ରାଚୀନ ଓଡ଼ିଆ ସାହିତ୍ୟ ପାଠ୍ୟକ୍ରମ ସେମାନଙ୍କ ମଧ୍ୟରେ ବୌଦ୍ଧଧର୍ମ, ଜାଥ ଧର୍ମ ଓ ଶାକ୍ତ ଧର୍ମ ସମ୍ପର୍କରେ ହୋଇଥିବା ଧର୍ମ ବିପ୍ଳବ ବିଷୟର ଧାରଣା ସୃଷ୍ଟିକରେ ।
	Core Course-2	ମଧ୍ୟଯୁଗୀୟ ଓଡ଼ିଆ ସାହିତ୍ୟ	୨. ମଧ୍ୟଯୁଗୀୟ ସାହିତ୍ୟ ପାଠ୍ୟ ଦ୍ଵାରା ସେହି ଯୁଗର ଭାଷା ଓ ଶୈଳୀ ସମ୍ପର୍କରେ ଧାରଣା ପାଇପାରନ୍ତି	ମଧ୍ୟଯୁଗୀୟ ପୃଷ୍ଠଭୂମି, ରାଜନୈତିକ ସ୍ଥିତି ଓ ସାମାଜିକ ବିଷୟରେ ପାଠ କରି ଛାତ୍ରଛାତ୍ରୀ ସେ ସମୟ ସମ୍ପର୍କରେ ବୁଝିପାରନ୍ତି ।
2	Core Course-3	ଆଧୁନିକ ଓଡ଼ିଆ ସାହିତ୍ୟ	ସ୍ଵାଧୀନତା ପୂର୍ବବର୍ତ୍ତୀ ଭାଷା ଓ ସାମାଜିକ ସ୍ଥିତି ସମ୍ପର୍କରେ ଅବଗତ ହୁଅନ୍ତି ।	ଆଧୁନିକ ସାହିତ୍ୟ ଦ୍ଵାରା ସାହିତ୍ୟର ପରବର୍ତ୍ତନର ଧାରା ସମ୍ପର୍କରେ ଧାରଣା ସୃଷ୍ଟି ହୁଏ ।
	Core Course-4	ସ୍ଵାଧୀନତା ପରବର୍ତ୍ତୀ ଓଡ଼ିଆ ସାହିତ୍ୟ	ସ୍ଵାଧୀନତା ପରବର୍ତ୍ତୀ ସାହିତ୍ୟ ଦ୍ଵାରା ସେମାନେ ବୈଦେଶିକ ଭାଷା ଓ ବାସ୍ତବଧର୍ମୀ ସାହିତ୍ୟ ସମ୍ପର୍କରେ ଅବଗତ ହୁଅନ୍ତି ।	ସାମ୍ୟବାଦୀ ଚିନ୍ତାଧାରା ସହ ଭାଷାର ପରିବର୍ତ୍ତନ ସମ୍ପର୍କରେ ଓ ଗଦ୍ୟ ପ୍ରବେଶ ବିଷୟରେ ବୁଝି ପାରନ୍ତି ।
3	Core Course-5	ଭାଷାର ସଂଜ୍ଞା ଓ ସ୍ଵରୂପ	ଭାଷାର ଉତ୍ପତ୍ତି ଓ କ୍ରମ ବିକାଶ ସମ୍ପର୍କରେ ଅବଗତ ହୁଅନ୍ତି ।	ଓଡ଼ିଆ ଭାଷା କିପରି ସୃଷ୍ଟି ହେଲା ଓ ତାର କ୍ରମବିକାଶର ଧାରା ସମ୍ପର୍କରେ ଅବଗତ ହେବେ ।
	Core Course-6	ଓଡ଼ିଆ ଭାଷାର ବୈଶିଷ୍ଟ୍ୟ ଓ ବିବିଧତା	ଓଡ଼ିଆ ଭାଷା ଉପରେ ବିଭିନ୍ନ ଭାଷାର ପ୍ରଭାବ, ଓଡ଼ିଆ ଭାଷାର ଆଞ୍ଚଳିକ ରୂପର ବିବିଧତା ବିଷୟରେ ଜ୍ଞାନ ପାଇ ପାରିବେ ।	ଓଡ଼ିଆ ଭାଷା ଉପରେ ବିଭିନ୍ନ ଭାଷାର ପ୍ରଭାବ, ଓଡ଼ିଆ ଭାଷାର ଆଞ୍ଚଳିକ ରୂପର ବିବିଧତା ବିଷୟରେ ଜ୍ଞାନ ପାଇ ପାରିବେ ।
	Core Course-7	ଓଡ଼ିଆ ବ୍ୟାବହାରିକ ବ୍ୟାକରଣ	ବ୍ୟାବହାରିକ ବ୍ୟାକରଣ ଜାଣିବା ଦ୍ଵାରା ଛାତ୍ରଛାତ୍ରୀମାନେ ପ୍ରକୃତ ବାକ୍ୟଗଠନ ଏବଂ ତାହାର ବ୍ୟବହାର ବିଷୟରେ ଜାଣିପାରନ୍ତି ।	ବ୍ୟାବହାରିକ ବ୍ୟାକରଣ ଜାଣିବା ଦ୍ଵାରା ଛାତ୍ରଛାତ୍ରୀମାନେ ପ୍ରକୃତ ବାକ୍ୟଗଠନ ଏବଂ ତାହାର ବ୍ୟବହାର ବିଷୟରେ ଜାଣିପାରନ୍ତି ।

4	Core Course-8	ଓଡ଼ିଆ ଲୋକ ସଂସ୍କୃତି ଓ ଲୋକକବିତା	ଓଡ଼ିଆ ଲୋକସଂସ୍କୃତି ଓ ଲୋକ ସାହିତ୍ୟର ସ୍ୱରୂପ, ପ୍ରକାରଭେଦ ଏବଂ ବିଭିନ୍ନ ପିଠ ବିଷୟରେ ଧାରଣା ପାଇ ପାରନ୍ତି ।	ଓଡ଼ିଆ ଲୋକସଂସ୍କୃତି ଓ ଲୋକ ସାହିତ୍ୟର ସ୍ୱରୂପ, ପ୍ରକାରଭେଦ ଏବଂ ବିଭିନ୍ନ ପିଠ ବିଷୟରେ ଧାରଣା ପାଇ ପାରନ୍ତି ।
	Core Course-9	ପ୍ରାଚ୍ୟ ଓ ପାଶ୍ଚାତ୍ୟ ସାହିତ୍ୟ ତତ୍ତ୍ୱ	ପ୍ରାଚ୍ୟ କବିତା ସହିତ ପାଶ୍ଚାତ୍ୟ ତତ୍ତ୍ୱ ବିଷୟରେ ଅନୁଧ୍ୟାନ କରିବାର ସୁଯୋଗ ପାଇବେ ।	ପ୍ରାଚ୍ୟ କବିତା ସହିତ ପାଶ୍ଚାତ୍ୟ ତତ୍ତ୍ୱ ବିଷୟରେ ଅନୁଧ୍ୟାନ କରିବାର ସୁଯୋଗ ପାଇବେ ।
	Core Course-10	ଓଡ଼ିଆ ପଦ୍ୟ ସାହିତ୍ୟ	ଓଡ଼ିଆ ଭାଷା ଓ ସାହିତ୍ୟର ପଦ୍ୟ ସଂପର୍କରେ ପ୍ରାଚୀନ ଧାରାରୁ ଆରମ୍ଭ କରି ସ୍ୱାଧୀନତା ପର୍ଯ୍ୟନ୍ତ ଯେତେ ସବୁ ପଦ୍ୟ ଅଛି ସେ ସଂପର୍କରେ ଅବଗତ ହେବେ ।	ଓଡ଼ିଆ ଭାଷା ଓ ସାହିତ୍ୟର ପଦ୍ୟ ସଂପର୍କରେ ପ୍ରାଚୀନ ଧାରାରୁ ଆରମ୍ଭ କରି ସ୍ୱାଧୀନତା ପର୍ଯ୍ୟନ୍ତ ଯେତେ ସବୁ ପଦ୍ୟ ଅଛି ସେ ସଂପର୍କରେ ଅବଗତ ହେବେ ।
5	Core Course-11	ଓଡ଼ିଆ ନାଟକ ଓ ଏକାଙ୍କିକା	ଓଡ଼ିଆ ଭାଷାର ସ୍ୱାଧୀନତା ନାଟକ ତାପରେ ବିଭିନ୍ନ ଏକାଙ୍କିକା ସଂପର୍କରେ ଜାଣିପାରିବେ ।	ଓଡ଼ିଆ ଭାଷାର ସ୍ୱାଧୀନତା ନାଟକ ତାପରେ ବିଭିନ୍ନ ଏକାଙ୍କିକା ସଂପର୍କରେ ଜାଣିପାରିବେ ।
	Core Course-12	ଓଡ଼ିଆ କଥା ସାହିତ୍ୟ	ଓଡ଼ିଆ ଗଦ୍ୟ ସାହିତ୍ୟର ମୂଳ ଉପାଦାନ ଗଳ୍ପ ଓ ଉପନ୍ୟାସର ସୃଷ୍ଟି ଓ ସମୃଦ୍ଧି ବିଷୟରେ ବୁଝିପାରିବେ ।	ଓଡ଼ିଆ ଗଦ୍ୟ ସାହିତ୍ୟର ମୂଳ ଉପାଦାନ ଗଳ୍ପ ଓ ଉପନ୍ୟାସର ସୃଷ୍ଟି ଓ ସମୃଦ୍ଧି ବିଷୟରେ ବୁଝିପାରିବେ ।
6	Core Course-13	ଓଡ଼ିଆ ଗଦ୍ୟ ସାହିତ୍ୟ	ଓଡ଼ିଆ ଗଦ୍ୟ ସାହିତ୍ୟର ପ୍ରମୁଖ ବିଭାଗ ପ୍ରବନ୍ଧ ଆତ୍ମଜୀବନୀ ଚରଣସ୍ତୁତ୍ର ଜ୍ଞାନ କାହାଣୀ ସଂପର୍କରେ ଛାତ୍ରଛାତ୍ରୀମାନେ ଅବଗତ ହୋଇପାରିବେ ।	ଓଡ଼ିଆ ଗଦ୍ୟ ସାହିତ୍ୟର ପ୍ରମୁଖ ବିଭାଗ ପ୍ରବନ୍ଧ ଆତ୍ମଜୀବନୀ ଚରଣସ୍ତୁତ୍ର ଜ୍ଞାନ କାହାଣୀ ସଂପର୍କରେ ଛାତ୍ରଛାତ୍ରୀମାନେ ଅବଗତ ହୋଇପାରିବେ ।
	Core Course-14	ଓଡ଼ିଆ ଭାଷାର ବ୍ୟାକରାଣିକ ପ୍ରୟୋଗ	ଓଡ଼ିଆ ଭାଷାର ବ୍ୟାକରଣର ବ୍ୟବହାରିକ ପ୍ରୟୋଗ ସଂପର୍କରେ ବୁଝିପାରିବେ ।	ଓଡ଼ିଆ ଭାଷାର ବ୍ୟାକରଣର ବ୍ୟବହାରିକ ପ୍ରୟୋଗ ସଂପର୍କରେ ବୁଝିପାରିବେ ।

ସ୍ୱାକ୍ଷରୀତ ଶ୍ରୀ. ସ୍ୱା. ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ. ସ୍ୱା. ଅଧ୍ୟକ୍ଷ

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Sl. No.	Name of the Subject & paper	Title of the Paper	Teaching Outcome
01	Core- I	हिंदी साहित्य का इतिहास - भाग- एक	हिंदी साहित्य के प्रथम खंड के माध्यम से हिंदी साहित्य के विद्यार्थियों को हिंदी साहित्य एवं संस्कृति संबंधी ज्ञान आहरण करने का अवसर प्राप्त हुआ एवं विद्यार्थी हमारे पुराने साहित्यकारों से परिचित हुए ।
02	Core- II	भक्ति कालीन हिंदी कविता - (निर्गुण एवं राम भक्ति काव्यधारा)	भक्ति कालीन काव्य के द्वारा विद्यार्थियों को भक्ति का स्वरूप प्राप्त हुआ एवं जीवन में भक्ति की आवश्यकता क्यों है? तथा निर्गुण एवं सगुण भक्ति में अंतर स्पष्ट होने के साथ-साथ जीवन में प्रेम एवं सादगी की आवश्यकता कितनी है यह भी स्पष्ट हुआ तथा आड़बंद हीन जीवन शैली का महत्व स्पष्ट हुआ ।
03	Core- III	हिंदी साहित्य का इतिहास - भाग-दो	हिंदी साहित्य के इतिहास के द्वितीय काल खंड से छात्रों को आधुनिक युग का उत्थान एवं विकास के संबंध में पूर्ण ज्ञान प्राप्त हुआ । एवं स्वतन्त्रता पूर्व भारत एवं स्वाधीन भारत में अंतर जीवन शैली से पहचान हो पाया तथा आधुनिक गद्य विधाओं के संबंध में ज्ञान अर्जन हो पाया ।
04	Core- IV	कृष्णभक्ति एवं रीति कालीन हिंदी कविता	भक्ति कालीन एवं रीति कालीन हिंदी कृष्ण भक्ति का स्वरूप स्पष्ट ज्ञान प्राप्त हो पाया एवं तत्कालीन कृष्ण भक्ति कवियों के संबंध में ज्ञान अर्जन हो पाया । रीति साहित्य के माध्यम से मध्यकालीन भारत की सांस्कृतिक, सामाजिक एवं राज नैतिक अवस्था के प्रति विद्यार्थी परिचित हो पाए ।
05	Core- V	अनुवाद सिद्धांत	अनुवाद सिद्धांत के द्वारा विद्यार्थियों को अनुवाद का स्वरूप स्पष्ट हो पाया तथा अनुवाद का सामान्य

			सूत्र ज्ञात हो पाया ।
06	Core- VI	हिंदी कथा साहित्य (उपन्यास)	उपन्यास साहित्य पठन के द्वारा विद्यार्थियों को उपन्यास का स्वरूप स्पष्ट होने के साथ-साथ विभिन्न समय के सामाजिक समस्याओं के संबंध में ज्ञान प्राप्त हो पाया ।
07	Core- VII	हिंदी कथा साहित्य (कहानी)	कहानी साहित्य पठन के द्वारा विद्यार्थी तत्कालीन अवस्था के प्रति अवगत हो पाए ।
08	Core- VIII	कथा इतर गद्य साहित्य	कथा इतर गद्य साहित्य के द्वारा छात्र-छात्राएँ अन्य साहित्यिक विद्याओं के संबंध में ज्ञान प्राप्त किया ।
09	Core- IX	आधुनिक हिंदी कविता	आधुनिक हिंदी कविता के द्वारा विद्यार्थी आधुनिक काव्य शैली से परिचित होने के साथ-साथ आधुनिक काव्य प्रवृत्तियों से परिचित हो पाए ।
10	Core- X	भाषा विज्ञान और हिंदी भाषा	भाषा विज्ञान के पठन के द्वारा विद्यार्थी भाषा की उत्पत्ति तथा आवश्यकता से परिचित हो पाए एवं हिंदी भाषा की उत्पत्ति का ज्ञान अर्जन कर पाए ।
11	Core- XI	हिंदी नाटक और रंग मंच	नाट्य साहित्य के द्वारा विद्यार्थी नाटक के तत्व से परिचित होने के साथ-साथ अभिनय का पूर्ण ज्ञान भी आहरण कर पाए ।
12	Core- XII	आधुनिक हिंदी कविता (भाग-दो)	आधुनिक हिंदी कविता के द्वारा विद्यार्थी तत्कालीन काव्य प्रवृत्तियों से परिचित हो पाए ।
13	Core- XIII	पाश्चात्य काव्य शास्त्र	पाश्चात्य काव्य शास्त्र के पठन के द्वारा विद्यार्थी विभिन्न विदेशी दार्शनिकों के संबंध में ज्ञान अर्जन करने के साथ-साथ विदेशी काव्य प्रवृत्तियों से परिचित हो पाए ।
14	Core- IX	भारतीय काव्य शास्त्र	भारतीय काव्य शास्त्र के पठन के द्वारा विद्यार्थी भारतीय मनीषियों से परिचित हो पाए एवं काव्य के विभिन्न अंग उपांग के संबंध में परिचित हो पाए ।

15	DSE-I	तुलसी दास	तुलसी साहित्य के पठन के द्वारा विद्यार्थियों का आध्यात्मिक ज्ञान अर्जन होने के साथ साथ तुलसी दास जैसे एक महान हिंदी कवि से परिचित हो पाए।
16	DSE-II	प्रेमचंद	प्रेमचंद के पठन से विद्यार्थी प्रेम चंद के साहित्य से परिचित होने के साथ-साथ तत्कालीन भारतीय समाज व्यवस्था के प्रति परिचित हो पाए।
17	DSE-III	कार्यालय हिंदी	कार्यालयी हिंदी के द्वारा विद्यार्थी सांविधानिक हिंदी शब्द से परिचित हो पाए एवं सरकारी कामकाजी हिंदी से परिचित हो पाए। तथा मसौदा लिखन टिप्पण आदि कार्यालयी हिंदी का ज्ञान अर्जन कर पाए।
18	DSE-IV	विज्ञापन	अवधारणा और प्रयोजनमूलक आयाम - विज्ञापन के द्वारा विद्यार्थी विज्ञापन कला से परिचित हो पाए।
19	G.E- I	मध्यकालीन इतिहास और भक्ति कविता	विद्यार्थी मध्यकालीन इतिहास से परिचित होने के साथ-साथ भक्ति साहित्य के प्रति परिचित हो पाए।
20	G.E-II	साहित्य और संदर्भ: विविध वाद	साहित्य संदर्भ के द्वारा विद्यार्थी विभिन्न साहित्यिक वाद के प्रति परिचित हो पाए। एवं इसका प्रभाव समाज पर क्या पड़ा उससे भी परिचित हो पाए।
21	AECC-I	हिंदी साहित्य	अध्ययन के द्वारा विद्यार्थी हिंदी साहित्य पर सामान्य ज्ञान अर्जन करने में सक्षम हो पाए।


HOD Hindi 15.5.2024


Rayagada (Auto.) College
Rayagada

Department of English

(UG: 1st Semster to 6th Semester)

- Demonstrate knowledge of the literary heritage of the British and American (European) and Indian traditions.
- Construct and articulate competent and persuasive interpretations of and arguments about texts.
- Read literature critically and analyze such works in conventionally appropriate ways.
- Produce writing that is clear, content-rich, rhetorically sophisticated, and that uses language appropriate to its context and purpose as well as the conventional mechanics and grammar of Standard Written English, and correct MLA documentation.
- Demonstrate a basic understanding of minority literatures (e.g., literature by women, multiethnic American literature, queer literature and postcolonial literature) from inside and outside the Western canon along with a basic understanding of the political and cultural concerns raised by such texts.

Core Paper I

BRITISH POETRY AND DRAMA: 14TH TO 17TH CENTURIES

1. To introduce the students to British poetry and drama from the 14th to the 17th
2. To help students sample and explore certain seminal texts from the early modern period, covering the genesis of modern English poetry and the Renaissance that set British poetry and drama on their glorious course to greatness.

Core Paper II

BRITISH POETRY AND DRAMA: 17TH AND 18TH CENTURY

To acquaint students with the Jacobean and the 18th century British poetry and drama, the first a period of the acid satire and the comedy of humours, and the second a period of supreme satiric poetry and the comedy of manners.

Core Paper III

BRITISH PROSE: 18TH CENTURY

To acquaint the students with a remarkable, newly evolved form of literature: the essay. The period is also known for its shift of emphasis from reason to emotion life.

Core Paper IV

INDIAN WRITING IN ENGLISH

1. To produce a rich and vibrant body of writing spanning all genres. As a 'twice born' form of writing, both the indigenous and the foreign perspectives with an inherent tendency to be postcolonial.
2. To introduce the students to the field through a selection of representative poems, novel and play.

Core Paper V**BRITISH ROMANTIC LITERATURE**

1. To acquaint the students with the Romantic period and some of its representative writers.
2. To be able to sample some seminal works of the Romantic age with the key ideas of the period such as return to nature, subjectivity, desire for personal freedom and the defiance of classicism-imposed restrictions on poetic form.

Core Paper VI**BRITISH LITERATURE 19TH CENTURY**

To introduce the students to the exploits of the 19th century British Literature in prose, especially fiction and cultural criticism with samples of Victorian poetry.

Core Paper VIII**AMERICAN LITERATURE**

To provide an overview of canonical authors from American Literature in the established genres.

Core Paper IX**EUROPEAN CLASSICAL LITERATURE**

1. To introduce the students to European Classical literature, in the 8th century BC in ancient Greece and continued until the decline of the Roman Empire in the 5th century AD.
2. To acquaint the students with the founding texts of the European canon.

Core Paper X**WOMEN'S WRITING**

1. To acquaint the students with the works of women writers from different cultures and nations in various genres.
2. To make them critically aware of the issues relating to the workings of patriarchy, issues of gender, and relations of desire and power.

Core Paper XI**MODERN EUROPEAN DRAMA**

To introduce the students to the best of experimental and innovative dramatic literature of modern Europe.

Core Paper XII**INDIAN CLASSICAL LITERATURE**

To create awareness among the students of the rich and diverse literary and aesthetic culture of ancient India.

Core Paper XIII**POSTCOLONIAL LITERATURES**

1. To introduce the students to postcolonial literature —a body of literature that responds to European colonialism and empire in Asia, Africa, Middle East, the Pacific and elsewhere.
2. to provide the students with the opportunity to think through the layered response — compliance, resistance, mimicry, subversion — that is involved in the production of post-independence literature

Core Paper XIV**POPULAR LITERATURE**

1. To introduce the students to genres such as children's literature, detective fiction and campus fiction, which have a "mass" appeal, and can help us gain a better understanding of the popular and folk roots of literature.

Discipline Specific Elective Paper-I**LITERARY THEORY**

To expose the students to the basic premises and issues of major theoretical approaches to literary texts.

Discipline Specific Elective Paper- II**WORLD LITERATURE**

1. To introduce the students to the study of world literature through a representative selection of texts from around the world.
2. To read beyond the classic European canon by including defining literary texts from other major regions/countries—except the United States of America—written in languages other than English, but made available to the readers in English translation.

Discipline Specific Elective Paper- III**PARTITION LITERATURE**

To expose the students to some significant writings on Indian partition, which brought untold miseries to those who lost lives and homes. The issues of loss, trauma, communalism etc. are explored by the texts.

Discipline Specific Elective Paper- IV**WRITING FOR MASS MEDIA**

1. To offer many career options when you graduate working in different fields
2. To give important personal insights into the world that can broaden your horizons and concepts of the world.

3. To foster students' ability to express and communicate ideas, arguments, historical findings, and creative insights.
4. To develop their writing skills in both analytical and creative contexts, often expressing those using emerging media technologies
5. To apply theoretical concepts to creative work and experiential insights about production to their intellectual research.

DSE Paper – IV (Choice-based)

DISSERTATION/ RESEARCH PROJECT

1. To understand in-depth a particular topic or fact in their field of study, and ii. Strengthen their understanding of research processes and methods.
2. To learn students to apply what they study in their courses to appreciate different aspects of their field better by working independently on the projects
3. To contribute something original to the courses they study.
4. To explore specific topics within the field of study of the students
5. To present in seminars and conferences, and published in research journals dedicated specifically to such work or in traditional academic journals with the student as a co-author.

Generic Elective Paper I

ACADEMIC WRITING AND COMPOSITION

Introduction:

To train the students in the basic writing skills required for writing competently in the academic context.

Generic Elective Paper II

GENDER AND HUMAN RIGHTS

To familiarize the students with issues of inequality, and oppression of caste, race and gender.

Generic Elective Paper III

NATION, CULTURE, INDIA

To introduce students across disciplines to basic ideas about Indian cultural ethos mediated through literature.

Generic Elective Paper IV

LANGUAGE AND LINGUISTICS

1. To offer the students some fundamental knowledge in Linguistics and English Language Teaching (ELT).
2. To acquaint the students with the variety of English that people come in contact with in contemporary times with a special emphasis on Asia and in particular, India.

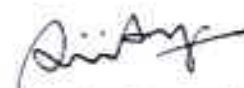
SKILL ENHANCEMENT COURSES (SEC)
Skill Enhancement Courses (SECC Option-I)
ENGLISH COMMUNICATION

1. To intend to build up the four primary skills in students in the academic as well as in the wider domains of use like public offices.
2. To provide guidelines for what to teach, and the list is in no way exhaustive.
 Teachers must be free and resourceful enough to collect teaching materials on their own, and even use newspaper clippings as teaching materials.
3. To make the students able and efficient communicators by helping them to be self-reflexive about English. This course has a pre-defined context of being supportive and complementary to the core courses in various disciplines.
4. To equip the students with the relevant skills of presentation and expression needed in the academic as well as in the professional domains of communicative use.
5. To promote the acquisition of analytical and comprehension skills, writing skills
 exercises are centered on sentence construction, paragraph development and précis writing
6. To build the speaking and listening skills of students in the way the course is planned with an emphasis on interactive learning and articulation.

AECC-II Paper
MIL (ALTERNATIVE ENGLISH)

1. To focus upon developing one fundamental skills of Language learning: reading for a thorough rethink and revision
1. To build a strong base for acquisition of the communication skills, suitable reading content selected from diverse areas in prose form.
2. To boost the learner's competence in expressive and comprehension skills.
3. To attract the teacher and learner to work out for giving decent shape to the mastery of English language.


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AECC – 2 Poetry, Prose and grammar.

Course Objectives - To introduce the classical poetry, Modern poetry and short stories in telugu literature.

Course Outcomes – Students will learn and improving the language skills listning, speaking, reading and writing.

Core – 1 Poetry, Prose and novel

Course Objectives - To introduce the modern poetry, Essays and Novel.

Course Outcomes – Students will classify various poetic styles and various poetries.

Core – 2 Modern poetry

Course Objectives - To build ethics in students.

Course Outcomes – Students will learn ethics and moral values. They apply the values in their daily life.

Core – 3 Poetry, Prosody and poetics

Course Objective - To introduce the classical poetry, Modern poetry and short stories in telugu literature.

Course Outcomes – Students will be summarizing the main theme in the poetry and know about the contemporary issues related to their daily life.

Core – 4 History of telugu literature

Course Objectives - To introduce the classical poets in telugu literature form 11th century to 16th century.

Course Outcomes – Students will learn about the features at 11th – 16th century poetry and writing efficiency of the so-called writers of.

Core – 5 Classical poetry

Course Objectives – To Introduce the modern telugu dramas in literature.

Course Outcomes – Students will know the various theories of drama and its subject. students will compare the same with his/her contemporary world.

Core – 6 History of telugu language and grammar

Course Objective – To develop writing efficiency in telugu language and grammar.

Course Outcomes – Students will understand how the telugu script derived from brahmi script and the word telugu origin of Dravidian language.

Core – 7 History of telugu language and dialects

Course Objectives – To introduce the phonology and dialects

Course Outcomes – Students will understand and learn how to pronunciation the letters and its origin places of articulatory system. Students will learn the different categories of dialects.

Core – 8 History of telugu literature

Course Objectives - To introduce mythological poets in telugu literature form 11th century to 15th century.

Course Outcomes – Students will know the pre period of telugu literature and how they translated the poetry from main language to source language.

Core -9 Grammar, Prosody and poetics

Course objectives – To develop the language skills of grammatical analysis and description.

Course Outcomes – Students will know the basic concepts of telugu grammar. Knowledge of words, sentence formation in telugu language.

Core -10 Literary Criticism

Course Objectives – To develop the critical thinking

Course Outcomes – Students will be analysing and express the merits and demerits of a literary

Core – 11 Prabandha Sahityam

Course Objectives – To introduce the descriptive made of writing followed by the poets of 15th century.

Course Outcomes – students will understand the types the poetry and descriptive methods of writing poetry.

Core – 12 Hetuvada sahityam.

Course Objective – To introduce the various literary genres of telugu literature

Course Outcomes – Knowledge of various social movements and impact on literature.

Core -13 Vemana

Course Objective – Introducing the uniqueness in poetry of a poet Vemana.

Course Outcomes – students will know the concept of vemana sataka.

Core – 14 Navyandhra Kavitwam.

Course Objective – To help them understand the different genres of the modern telugu poetry.

Course Outcomes - Students will learn the impact of western poetry on modern poetry of telugu and different emerging trends of poetry in modern poetry. Like feminist, romantic poetry etc.

DSE -1 Gurajada

Course Objective – To acquaint the new methods of writing styles of gurajada.

Course Outcomes – students will learn about the reformistic writings of the poet and the writing aim at eradicating witches, child marriages etc. students will do the better for society which they learnt from this poetry.

DSE -2 folk literature

Course Objective – To introduce the folk literature and its importance.

Course Outcomes – Students will learn the folk arts like songs, proverbs and their culture and etc.

DSE -3 journalism and translation

Course Objective – To acquaint knowledge of journalism and translation.

Course Outcomes – students will understand the press & print media system and the translation studies.

DSE - 4 Comparative literature

Course Objectives – knowledge about the comparison

Course Outcomes - Students will learn about the language and literature tradition and culture of the particular literature.

G.E 1 – History of ancient culture of andhras

Course Objectives – To introduce the andhra king poets service regarding the literature

Course Outcomes – students acquaint knowledge about the king poets and women's history in telugu literature.

G.E 2– Bala Sahithyam

Course Objectives - To acquaint knowledge of Bala Sahithyam

Course Outcomes – students will learn about the children songs and riddles etc.

Tyghah
20/3/2021
HEAD
Department of Telugu
Rayagada Autonomous College

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20.03.2021
Principal
Rayagada (Auto.) College
Rayagada

Department of Political Science

(UG: From 1st semester to 6th Semester courses)

Programme Learning outcomes of Political Science discipline for students

Course /Programme Objectives

Political Science is a social science discipline which, not only studies state and government but, simultaneously, applies empirical theory and scientific methodology to the political analysis. As the globe at present revolves round political as well as economic deliberations, a formal degree in Political Science has the paramount practical applicability. Its focus is concerned with the everyday life of an individual living in a society and state.

Political Science is the study of political behaviour, governance and power and how these are shaped within institutional settings through the ideas, interests and resources of political actors. Hence, a degree in political science enables students to enhance their grasping abilities of the basic structures and processes of governmental systems, public policies and political forces that directly impact their lives. It also helps them to examine political problems, arguments, information and theories and to apply methods appropriate for accumulating and interpreting data relevant to the discipline.

Primarily, it assists students in becoming informed citizens by strengthening knowledge on the entitlement to their rights and duties within a state. An Honours graduate in Political Science of Rayagada (Autonomous) College should hold the potentiality to:

- ❖ *To demonstrate an understanding of fundamental political processes, institutions, actors, behaviour, and ideas; and acquaintance with major theories, methods, and concepts of Political Science.*
- ❖ *To explain ability in thinking systematically about political interactions in regional, national, international contexts*
- ❖ *To explain expertise in critical thinking about the ethical dimensions of Politics in a systematic manner*
- ❖ *To help in write effectively, engage in Intellectually grounded verbal debate and form and express coherent arguments*
- ❖ *To assist in synthesize, analyze, and critically evaluate major arguments in the discipline.*
- ❖ *To comprehend the basic structures and processes of government systems and/or theoretical underpinnings.*
- ❖ *To analyze political problems, arguments, information, and/or theories.*
- ❖ *To apply methods appropriate for accumulating and interpreting data applicable to the discipline of political science.*
- ❖ *To educate the people's representatives regarding the parliamentary systems and constitutional position of the country*

- ❖ To provide service to people by opting for civil services

Class	Course	Course Outcomes
UG	Core-I : Understanding Political Theory	<ol style="list-style-type: none"> 1. To understand the concepts that have shaped our politics, including freedom, equality, individuality, democracy and justice. 2. To explore what a better political world would look like and how we can create it. 3. To involves critiques of our present political reality, and may even take explicitly political positions.
	Core-II: Constitutional Government and Democracy in India	<ol style="list-style-type: none"> 1. To acquaint students with the constitutional design of state structures and institutions, and their actual working over time. 2. To accommodate conflicting impulses (of liberty and justice, territorial decentralization and a strong union, for instance) within itself. 3. To traces the embodiment of some of these conflicts in constitutional provisions, and shows how these have played out in political practice. 4. To encourage a study of state institutions in their mutual interaction, and in interaction with the larger extra-constitutional environment.
	Core-III: Political Theory :Concepts and Debates	<ol style="list-style-type: none"> 1. To familiarise with the basic normative concepts of political theory 2. To encourage critical and reflective analysis and interpretation of social practices through the relevant concepts 3. To introduce the students to Major Debates regarding the interrelation between state and individual rights
	Core-IV: Political Process in India	<ol style="list-style-type: none"> 1. To familiarize students with the working of the Indian state, paying attention to the contradictory dynamics of modern state power 2. To map the working of modern institutions, premised on the existence of an individuated society, in a context marked by communitarian solidarities, and their mutual transformation thereby.
	Core-V: Introduction to Public Administration	<ol style="list-style-type: none"> 1. To critically engage various disciplinary perspectives and theoretical approaches to the study of public administration and governance; 2. To understand the core theories, concepts and

		<p>approaches used in various subfields of public administration;</p> <p>3. To critically assess various administrative systems and modes of governance in specific policy contexts.</p>
	Core- VII: Perspectives on International Relations	<p>1. To explore the ways these different perspectives shape our understanding of the root causes of historical events and current controversies, and then think critically about the world's most urgent issues.</p> <p>2. To Familiarize with the key concepts of the discipline of IR.</p> <p>3. Understanding of linkages between Classical Realism and Classical Geopolitics.</p> <p>4. To make a comprehensive understanding of the key assumptions and arguments of the mainstream IR.</p> <p>5. To appreciate of what is Global IR and why non-western perspectives are needed.</p> <p>6. Greater appreciation of the important role played by non-Western countries in building post-War norms and institutions in key areas such as universal sovereignty, human rights, development, and regionalism.</p> <p>7. To understand the agency of the Global South in these areas is key to countering IR's ethnocentrism and developing new concepts, theories, and methods.</p>
	Core-VIII: Political Processes and Institutions in Comparative Perspective	<p>1. To discuss the theory and apply the methodology of comparative analysis within the discipline of political science.</p> <p>2. To introduce students to some of the range of issues, literature and methods that cover comparative political.</p> <p>3. Analyze contemporary problems in the countries under consideration in light of the conceptual frameworks presented in classroom.</p>
	Core-IX: Public Policy and Administration in India	<p>1. To understand the basic concepts such as public policy, policy analysis, public policy process and governance.</p> <p>2. To provide knowledge of different stages of the Public policy process in terms of theoretical formulation and the process necessary competence to undertake policy analysis</p>
	Core-X: Global Politics	<p>1. To allow students to develop an understanding of the</p>

		<p>local, national, international and global dimensions of political activity, as well as allowing them the opportunity to explore political issues affecting their own lives.</p> <ol style="list-style-type: none"> 2. To understand abstract political concepts by grounding them in real world examples and case studies, and also invites comparison between such examples and case studies to ensure a transnational perspective. 3. To impart an understanding of the working of the world economy, its anchors and resistances offered by global social movements while analyzing the changing nature of relationship between the state and transnational actors and networks 4. To offer insights into key contemporary global issues such as nuclearization, ecological issues, international terrorism, and human security before concluding a debate on the phenomenon of global governance
	Core-XI: Western Political Philosophy	<ol style="list-style-type: none"> 1. To give an introduction to Political Thought processes and Theory making in the West. 2. To introduce the student to the richness and variations in the political perceptions of Western Thinkers. 3. To provide foundation to students of Political Science in familiarizing themselves to the Thought & Theory of Western Philosophy. 4. To focus on the evolution of idea and institution of State in the West.
	Core- XII: Indian Political Thought (Ancient and Medieval)	<ol style="list-style-type: none"> 1. To offer a lucid and comprehensive account of pre-modern Indian thought and traditions. 2. To unravel the ideas and thoughts of ancient and medieval thinkers and various intellectual traditions of the Indian sub-continent. 3. To understand the basic concepts of Indian political thought and develop a critical understanding of the major themes and issues such as community, state, kingship, culture and religion as perceived by different thinkers 4. To provide a roadmap to orient the students to the main themes and traditions of Indian socio-political thought.

		<p>5. To help the readers recapitulate better thought-provoking review questions and suggestions for further reading to enrich the teaching-learning experience.</p>
	<p>Core-XIII: Contemporary Political Philosophy</p>	<ol style="list-style-type: none"> 1. To develop in students a critical understanding of approaches to and problems in contemporary political philosophy 2. To develop a critical understanding of approaches to and problems in contemporary political philosophy 3. To develop an ability to advance and analyse arguments in political philosophy.
	<p>Core-XIV: Modern Indian Political Thought</p>	<ol style="list-style-type: none"> 1. To identify some of the foundational problems and issues of modern Indian philosophy and its political and social context 2. To critically engage with select Indian philosophical texts of the modern period and identify, summarise, and criticise, in an intellectually sensitive way, the philosophical positions of these texts. 3. To relate some of the core concepts and theories of modern Indian philosophy to concepts and ideas in classical Indian philosophy and contemporary European thought. 4. To identify different ways of "doing philosophy", develop an ability to use a variety of philosophical approaches in addressing contemporary issues, and gain an appreciation of how these approaches may be integrated more practically as a "way of life".
	<p>DSE-I: Introduction to Human Rights</p>	<ol style="list-style-type: none"> 1. To provide the student with the capacity to identify issues and problems relating to the realisation of human rights, and strengthens the ability to contribute to the resolution of human rights issues and problems. 2. To take an analytic and critical stance and deal with questions of how human rights affect social and political processes. 3. To enable students as human rights practitioners to widen their theoretical hold on the human rights system and its historical and philosophical

		underpinnings.
	DSE-II: Development Process and Social Movements in Contemporary India	<ol style="list-style-type: none"> 1. To interrogate and challenge the development paradigm that evidently weakens the democratic space so very critical to the formulation of critical consensus 2. To introduce students to the conditions, contexts and forms of political contestation over development paradigms and their bearing on the retrieval of democratic voice of citizens.
	DSE-II: India's Foreign Policy in a Changing World	<ol style="list-style-type: none"> 1. To trace the values and principles that have shaped India's foreign policy and its evolution starting from the Non-Aligned Movement, up to the end of the Cold War; decline of multilateralism and the nation state; and the challenges of globalization. 2. To instruct students on India's shifting identity as a postcolonial state to the contemporary dynamics of India attempting to carve its identity as an aspiring global power 3. To aware of the socio political dynamics at play in contemporary India and keep themselves abreast with current affairs and debates in the country to fully appreciate the various dimensions and contours of the subject matter in the course. 4. As India's influence increases in the international system, understanding its foreign policy and its engagement with the rest of the world is critical for students of international relations. It is designed as a comprehensive review of some of the key issues related to India's world view and its behaviour towards the outside world. Apart from taking stock of contemporary thinking and policies of the country, the major thrust would be on India's relations with its neighbours and great powers, its nuclear weapons policy and the ideological foundations of its foreign policy after independence.
	DSE-IV: Women, Power and Politics	<ol style="list-style-type: none"> 1. To open up the question of women's agency, taking it beyond 'women empowerment' and focusing on women as radical social agents. 2. To question the complicity of social structures and

		<p>relations in gender inequality</p> <ol style="list-style-type: none"> 3. To cover new forms of precarious work and labour under the new economy. 4. To offer a timely and engaging analysis of classic and contemporary gender-related issues, focusing on the role of women as active participants in government and the public policies that affect women in their daily lives. 5. To gain an understanding of how inequalities based on gender, race, class and sexuality influence our politics and learn the tools to undertake gendered critiques and analyses of politics.
	DSE –IV: Dissertation/Research Project (Choice based)	<ol style="list-style-type: none"> 1. Enrich by early exposure to conducting research 2. To develop ability for scientific inquiry and critical thinking, ability in the knowledge base and communication.
	GE: Paper-I : Feminism: Theory and Practice	<ol style="list-style-type: none"> 1. To introduce students to contemporary debates on feminism and the history of feminist struggles. 2. To begin with a discussion on construction of gender and an understanding of complexity of patriarchy and to analyze theoretical debates within feminism. 3. To offer a gendered analysis of Indian society, economy and polity with a view to understanding the structures of gender inequalities. 4. To understand the issues with which contemporary Indian women's movements are engaged with.
	GE: Paper II: United Nations and Global Conflicts	<ol style="list-style-type: none"> 1. To provide a comprehensive introduction to the most important multilateral political organisation in international relations. 2. To provide a detailed account of the organizational structure and political processes of the UN, and deal with the major global conflicts. 3. To impart a critical understanding of the UN's performance until now and the imperatives as well as processes of reforming the organization in the context of the contemporary global system.


 Head of the Department



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Department of Economics
(UG: 1st Semester to 6th Semester)
GENERAL PROGRAMME OUTCOMES

- ✓ To develop the ability to explain core economic terms, concepts, and theories.
- ✓ To demonstrate the ability to employ the "economic way of thinking."
- ✓ To demonstrate awareness of global, historical, and institutional forces.
- ✓ To apply economic theories and concepts to contemporary social issues, as well as formulation and analysis of policy.
- ✓ To recognize the role of ethical values in economic decisions.
- ✓ To demonstrate the ability to collect, process, and interpret data, including statistical inference.
- ✓ To demonstrate computer proficiency within economics.
- ✓ Be able to use critical thinking skills within the discipline of economics about economic matters.
- ✓ To develop an awareness of career choices for undergraduate economic majors, and the options for graduate study.

Course Outcomes

On successful completion of these courses, students will be able to:

Core- I

Introductory Microeconomics

This course is designed to expose the students to the basic principles of Microeconomic Theory. The emphasis will be on thinking like an economist and the course will illustrate how Microeconomic concepts can be applied to analyze real-life situations.

Course Outcomes:

- To explain the concepts of opportunity cost, trade-offs, and the benefits of exchange.
- To demonstrate knowledge of the laws of supply and demand and equilibrium; and apply the supply and demand model to analyse responses of markets to external events.
- To apply supply and demand analysis to examine the impact of government regulation.
- To explain and calculate price elasticity of demand and other elasticities.
- To demonstrate an understanding of producer choice, including cost and break-even analysis.
- To compare and contrast common market structures, including perfect competition and imperfect competition.
- To apply microeconomic principles and models to define and address market failures; and to describe issues such as wage inequality, environmental protection or other policy matters.

Core-II

Mathematical Method for Economics I

This is the first of a compulsory two-course sequence. The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. The level of sophistication at which the material is to be taught is indicated by the contents of the prescribed text book.

Course Outcome

- To use mathematical techniques to analyse economic problems
- To develop Model economic questions in mathematical framework
- To evaluate range of problems using mathematical techniques
- To acquire mathematical skills used in economic analysis

Core-III

Introductory Macroeconomics

This course aims to introduce the students to the basic concepts of Macroeconomics. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like savings, investment, GDP, money, inflation, and the balance of payments.

Course Outcome

- To explain the basic concepts of macroeconomic variables like GNP, gross domestic product, inflation and unemployment, and how they are measured.
- To explain the circular flow model and use the concepts of aggregate demand and aggregate supply to analyze the response of the economy to disturbances.
- To describe the determinants of the demand for money, the supply of money and interest rates and the role of financial institutions in the economy.
- To define fiscal and monetary policies and how these affect the economy.
- To identify the causes of prosperity, growth, and economic change over time and explain the mechanisms through which these causes operate in the economy.

Core - IV

MATHEMATICAL METHODS FOR ECONOMICS II

This course is the second part of a compulsory two-course sequence. This part is to be taught in Semester II following the first part in Semester I. The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this Syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general.

Course Outcome

- To apply different optimization techniques to real life situations in economics.
- To apply multivariable calculus in optimization problem.
- To understand the architecture of curves and surfaces in plane and space etc.
- To conduct graphical analysis and interpretations of the said concepts.
- To learn conceptual variations while advancing from one variable to several variables in calculus

Core Paper V

MICROECONOMICS I

The course is designed to provide a sound training in microeconomic theory to formally analyze the behavior of individual agents. Since students are already familiar with the quantitative techniques in the previous semesters, mathematical tools are used to facilitate understanding of the basic concepts; this course looks at the behavior of the consumer and the producer and also covers the behavior of a competitive firm.

Course Outcome

- To understand the fundamental theories of microeconomics
- To get an introduction to supply and demand and the basic forces that determines equilibrium in a market economy
- To introduce the framework for learning about consumer behaviour and analyzing consumer decisions
- To study about firms and their decisions about optimal production and production techniques, production functions
- To use the fundamental techniques to think about a number of policy questions related to the operation of the real economy
- To understand introductory theories and theory in a local, regional, national and international scenario
- To introduce the supply and demand and the basic forces that determine equilibrium in a market economy

Core Paper VI

MACROECONOMICS I

This course introduces the students to formal modeling of a macro-economy in terms of analytical tools. It discusses various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. It also introduces the students to various theoretical issues related to an open economy

Course Outcomes:

Upon successful completion of the course a student will be able to:

- To define and explain the various laws and functions of consumption and investment functions.
- To understand Say's law of market, classical theory of employment and Keynes objection to the classical theory, demonstrate the principle of effective demand and income determination.
- To explain the meaning of consumption function, relationship between APC and MPC, consumption and income, concept of multiplier and analyse the theories of absolute and relative income hypotheses.
- To understand the relationship between investment and savings, demonstrate investment multiplier, and understand the meaning of MEC and MEL COS. Illustrate the meaning of interest, analyse the various theories of interest.

Core Paper VII

STATISTICAL METHODS FOR ECONOMICS

This is a course on statistical methods for economics. It begins with some basic concepts and terminology that are fundamental to statistical analysis and inference. It is followed by a study and measure of relationship between variables, which are the core of economic analysis. This is followed by a basic discussion on index numbers and time series. The paper finally develops the notion of probability, followed by probability distributions of discrete and continuous random variables and introduces the most frequently used theoretical distribution, the Normal distribution.

Course Outcome

After successful completion of this paper a student will be able to

- Basic concepts of statistics such as measures of central tendency, dispersion, skewness and kurtosis.
- Elementary probability theory including probability distributions.
- Methods of sampling and census.
- Correlation and simple regression.
- Index numbers.

Core Paper VIII MICROECONOMICS II

This course is a sequel to Microeconomics I. The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning. It covers Market, general equilibrium and welfare, imperfect markets and topics under information economics.

Course Outcome

After the successful completion of Microeconomics II students will be able to:

- To analyze and present in a scientific way the markets for factors of production and apply comparative static analysis.
- Demonstrate knowledge and understanding of the issues concerning efficiency, general equilibrium and general welfare.
- Analyze the effects of government intervention in the case of public goods and externalities and explain why governmental intervention improves general welfare.
- Apply microeconomic theory and microeconomic models to real economic situations and explain, analyze and predict the effects of interventions and structural changes in the economy on the welfare of individuals.
- To apply marginal analysis to the "firm" under different market conditions.
- To analyse the causes and consequences of different market conditions.
- To integrate the concept of price and output decisions of firms under various market structure.

Core-IX

Macroeconomics II

Course Outcome

- Relate basic macroeconomic theory and principles to current macroeconomic issues.
- Apply basic macroeconomic theory to analyse macroeconomic policies.
- Understand how an open economy operates and how it may react to policy changes and exogenous shocks.
- Understand the factors that generate growth, Classical and Keynesian Macroeconomics Thoughts.
- Monetarist and New Classical Macroeconomic Thoughts.

Core - X Public Economics

This course investigates the role of the public sector in the economic arena. We will attempt to explain why government intervention is needed, how it influences the behaviour of the private sector and what the welfare effects of such influences are. We will also survey political economy, which regards actions of the public sector as determined by political processes. Topics covered may include welfare economics, market failures, innovation policy, and political economy. Students are expected to be familiar with one variable calculus and optimization techniques at the level of Managerial Economics IID or equivalent.

Course Outcome

- To use the basic tools, concepts and models to solve problems in key topics in Public Economics
- To have conceptual clarity of public expenditure and revenue theories;
- To apply the principle of optimal taxation in analysing various governments tax policies;
- To know the application of public economics in analysing various energy policies, Public Budget and public debt.

Core Paper XI INDIAN ECONOMY I

Using appropriate analytical frameworks, this course reviews major trends in economic indicators and policy debates in India in the post-independence period, with particular emphasis on paradigm shifts and turning points. Given the rapid changes taking place in India, the reading list will have to be updated annually.

Course Outcome:

After successful completion of this paper, students will understand the development issues of Indian economy.

- a. To develop ideas of the basic characteristics of Indian economy during British period and after independence its potential on natural resources.
- b. To learn planning in pre and post liberalization periods.
- c. To understand the importance, causes and impact of population growth and its distribution; translate and relate them with economic development.
- d. To grasp the importance of planning undertaken by the government of India, have knowledge on the various objectives, failures and achievements as the foundation of the ongoing planning and economic reforms taken by the government.
- e. To understand the various challenges of Indian Economy like poverty, unemployment, inequality and environmental challenges.

CRE-XII DEVELOPMENT ECONOMICS-I

This is the first part of a two-part course on economic development. The course begins with a discussion of alternative conceptions of development and their justification. It then proceeds to aggregate models of growth and cross-national comparisons of the growth experience that can help evaluate these models. The axiomatic basis for inequality measurement is used to develop measures of inequality and connections between growth and inequality are explored. The course ends by linking political institutions to growth and inequality by discussing the role of the state in economic development and the informational and incentive problems that affect state governance.

Course Outcome

To explain inequalities between rich and poor countries, how the differences have evolved over time and how other measurements of quality of life correlates with per capita income.

Course Outcome

- To explain the concept of economic growth.
- To get knowledge of different measurements of poverty and inequality, and pros and cons of the different measurements.
- To understand different characteristics of world demographics and explain how population growth affects other economic circumstances.
- To explain the development of international trade patterns and central theories of international trade.
- To get knowledge of central multilateral humanitarian organisations and their role.

Core- XIII Indian Economy-II

This course examines sector-specific policies and their impact in shaping in key economic indicators in India. It highlights major policy debates and evaluates the Indian empirical evidences. Given the rapid change taking place in the country, the syllabus will have to be updated annually.

Course outcome:

- To get idea about role of agriculture in economic development including land reforms, green revolution and causes of low productivity.
- To get knowledge about role of industries in development process, industrial reforms and industrial policy of 1991.
- Get knowledge on share of services sector towards employment, national income and HRD, education policy etc.
- Get knowledge on globalization in Indian economy, foreign trade, foreign investment, MNCs, BOP etc.

Core - XIV DEVELOPMENT ECONOMICS II

This is the second unit of the economic development sequence. It begins with basic demographic concepts and their evolution during the process of development. The structure of markets and contracts is linked to the particular problems of enforcement experienced in poor countries. The governance of communities and organizations is studied and this is then linked to questions of sustainable growth. The course ends with reflections on the role of globalization and increased international dependence on the process of development.

Course Outcome

- To get knowledge about population and development and different theories related to population.
- To know the methods of controlling environment pollution and thereby to achieve sustainable development.
- To know the role of agriculture in development, ownership distribution, land acquisition, labour productivity.

DSE-I

Odisha Economy

This course exposes students to the theory and functioning of the monetary and financial sectors of the economy. It highlights the organization, structure and role of financial markets and institutions. It also discusses interest rates, monetary management and instruments of monetary control. Financial and banking sector reforms and monetary policy with special reference to India are also covered.

Course Outcomes:

- To understand the economic principles underlying the operation of financial intermediaries.
- To understand how central banks conduct monetary policy.
- To understand contemporary issues in monetary policy and financial stability.
- To conduct a theoretical analysis of real world issues and phenomena.

DSE-II

International Economics

This course introduces the students to international trade and finance to understand the theories of international trade and develop insights into trade policy and balance of payments. The course also develops insight into international financial system and the trade policy of India.

- To provide a conceptual understanding of the key concepts and practical applications of both international trade and international finance
- To outline the development trade theory historically, differentiating standard classical and orthodox trade theories.
- To analyse the links between trade, international finance, economic growth and globalisation, with a particular emphasis on the experiences of developing countries.
- To critically comment on and participate in current debates on international economic policy.

DSE-III

Data Analysis and Computer Applications in Economics

This course intends to educate a student in the application of simple statistical and mathematical calculations with the help of a computer. There are several specific packages which a student can learn to handle without going deep in the matter of knowing the computer hardware.

Course outcome:

- Get knowledge about alternative approach to teaching content by using computer applications that emphasize the empirical testing or applications of the theory.
- Get know the basic fundamentals of computer.
- Get to know about different economics applications on computer.

DSE-IV

AGRICULTURAL ECONOMICS

The course introduces students to the significance of agriculture in the Indian economy and helps to understand the role of agriculture in economic development. It is designed to develop insights into changing agricultural practices in India and assess the significance of agriculture in the era of liberalization.

Students should have the skills

- To fit into a business, agency, or academic environment and use economic concepts to quantify and analyze issues related to their employer's issues.
- To be familiar with issues related to the agricultural sector, natural resource policies, and rural community development.
- To communicate effectively, both written and orally, advanced economic concepts and apply those to agricultural and natural resource issues and apply those in a professional or academic environment.
- To succeed in a business, agency, or academic environment and use economic concepts to quantify and analyze issues as directed by their employer.
- To be familiar with issues related to the agricultural sector, natural resource policies, and rural communities.

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**C.B.C.S. COURSE STRUCTURE: B.A (HISTORY HONOURS)
RAYAGADA AUTONOMOUS COLLEGE, RAYAGADA**

U.G. SYLLABUS OBJECTIVE & OUTCOME

SEMESTER: I

CORE PAPER: I

HISTORY OF INDIA -I

- Students will acquire knowledge regarding the primitive life and cultural status of the people of ancient India.
- To gather knowledge about the society, culture, religion and political history of ancient India as well.
- To learn about the origin of the Indian empire, trade and urbanizations of ancient civilization, like Harappan civilization, Vedic civilizations, later Vedic civilizations etc.
- To develop Paleolithic, Neolithic and Chalcolithic cultures in pre-Harappan period,

CORE PAPER -II

SOCIAL FORMATIONS & THE CULTURAL PATTERN OF THE ANCIENT WORLD

- Students of can acquire knowledge about the evolution of human Society & how the society of agricultural and animal husbandry had begun in Ancient Times.
- They also learn how the human society had transformed from Nomadic to civilized society in ancient history of the World.
- They can acquire knowledge about the origin, features, nature and class composition of ancient Greek and Polis society.
- They can compare to each and other among the several societies of the world.

SEMESTER-II

CORE PAPER -III

HISTORY OF INDIA FROM 300BCE- 750 CE

- Students will learn how to rise & Growth of the Gupta's Empire in ancient India and to raise regional Kingdoms in different parts of India after downfall of the Empire.
- To acquire knowledge towards the society, economy and culture in early medieval India.
- They can gather knowledge towards the Arabs conquest of Northern part of India from this paper.
- They can understand how the land of India becomes handed over to the foreign powers gradually from the ancient times to
- Student also learn about the origin of Jainism & Buddhism in India

CORE PAPER -IV

SOCIAL FORMATIONS & THE CULTURAL PATTERN OF THE MEDIEVAL WORLD

- Student can learn about the religion, culture, literature and philosophy of the Medieval Roman Empire.
- They will acquire knowledge, how the crises of the Roman Empire had made and transitioned to Participate.
- To acquire knowledge how the economic, social and religious development had made during the medieval European society.
- They can be learning about the socio-economic and political condition of the feudal organization of production, town's formation, trade and commerce, technological development and crisis of feudalism in Europe.

SEMESTER-III

CORE PAPER -V

HISTORY OF INDIA-III (C. 300- 1206 AD)

- Student can learn how medieval sources help to reconstruct early medieval history of India.
- Student also can learn how sultanate rule established in India.
- To acquire knowledge how internal trade and maritime trade flourished during early medieval period
- They can learn the growth and development of regional language, literature and regional styles of art and architecture.

CORE PAPER -VI

RISE OF MODERN WEST - I

- Student can learn geographical discoveries through sea route and conquest of America.
- They will learn how to rise of Renaissance in Italy and spread of humanism in Europe and results of the European Reformation in the 16th century and Shift of economic balance from the Mediterranean to the Atlantic.
- Student gathered knowledge expansion of industries in European countries.

CORE PAPER -VII

History of India III (1206 - 1526 AD)

- Students of history will learn about the foundation, expansion and consolidation of the Sultanate of Delhi and also to the downfall of the Delhi Sultanate.
- They will learn towards the emergence of provincial dynasties & Consolidation of regional identities like, Bahamanis, Vijayanagar and Bengal.
- They also acquire the knowledge about the Changing scenarios of the urban and rural societies after consolidation of the rule of the Sultanate of Delhi.

- They can learn about the activities of Delhi Sultanate i.e., revenue systems monetization, market regulations, growth of urban centers, trade and commerce, Indian Ocean trade etc.

GE Paper- I

History of India- I (Early times to 1750)

After studying the paper, the students will be able to understand

- Sources for the reconstruction of Ancient Indian History; the socio-political and cultural aspects of Vedic Age as well as the principles and impacts of Buddhism and Jainism.
- The polity and administration of the Mauryan Empire as well as the Gupta Empire; the conquest phenomena of the emperors of these dynasties. Besides the political achievements of Harshavardhana.
- Conquest and Administrative system of the kings of Delhi sultanate; the Bhakti movement and the Sufi movements. The development of regional language.

SEMESTER-IV

CORE PAPER –VIII

Rise of Modern West – II (17th & 18th Centuries)

- Students will learn about the European crisis of economic, social and political dimensions as well as the English Revolution, major issues like political and intellectual currents in 17th century.
- They will learn about the rise of modern science in relation to European society by the Renaissance and the European politics in the 18th century like parliamentary monarchy, patterns of Absolutism in Europe and prelude to the Industrial Revolution in England and other European countries.
- They also acquire the knowledge transition the society and economy from feudalism to capitalism.

CORE PAPER –IX

History of India –V (1526 - 1605)

- Students acquire knowledge towards the Turkey's invasion & Struggle for Empire in North-Western India and foundation of the Mughal Rule in India.

- To learn about the Mughal Indian society, economy and culture after consolidation of the Mughal rule India.
- They will learn Sufi movement in India and the role of Ulema during the Mughal rule.
- Students gathered knowledge about Akbar religious policy and land revenue system during the mughal rule.

CORE PAPER -X

HISTORY OF INDIA -V (1605-1750)

- Students acquire knowledge about extension of mughal rule in india.
- Students also learn how the art and architecture developed during the Mughal period.
- They will know about the Mughal, Rajputs relationa.
- Students gathered knowledge the emergence of Shivaji and decline of the mughal rule.

GE paper -II (Semester: III)

History of India- (1750-1950)

After reading this paper, the students will be able to understand

- War, conquest, and expansion policies of British in the Indian land such as the battle of Plassey, conquest of Mysore and Maratha confederacy, and the diplomatic alliances of British with the Indian princes.
- Popular resistance against the British between the period of 1750-1850 as well as the policies adopted by the colonial government for the consolidation of the Indian landmass.
- Social and cultural changes such as reforms in religious aspects of people, in press and educations, the position of women, and the caste system.
- Popular mass movements during the first half of the 20th century like the Gandhian movement, the role of extremists and moderates, the rise of communal politics and the partition, and the endeavor for the making of the democratic constitution.

SEMESTER-V

CORE PAPER -XI

HISTORY OF MODERN EUROPE (1780-1880)

- They will learn about the French Revolution and its impact on European countries. Unity and power makes people to strength which has showed in the French revolution in 1789.
- How the Industrialization had occurred and it's affected on socio economic transformation of Europe.
- They will know about the politics of super power among the European countries.
- How the sense regarding the nationalism and unification had developed among the European countries on eve of the 2nd world war.

CORE PAPER -XII

HISTORY OF INDIA (1750-1857)

- Students can learn about foreign trade and early forms of economy in Bengal, Mysore and Odisha.
- Students also gather knowledge about oriental education in modern India.
- They will know about causes and consequences of Revolt of 1857.
- To acquired knowledge on growth of modern industry in India.

DSE paper- I

History and culture of Odisha-I

After studying this paper, the students will be able to understand

- Historical geography of Odisha (Kalinga, Utkala, and south Kosala kingdom), and the significance of Kalinga war as well as the life and achievement of Kharavela in Odishan history.
- Rise of new royal dynasties during the early medieval period such as Sailodbhaha, Bhaumakaras, and Somavamsins.
- Rise of the royal imperial royal dynasties like the imperial Gangas, Suryavamsi Gajapatis, and the political developments in Odisha after the Gajapatis.
- The socio-cultural life of early medieval Odisha in its growth and decay of urban centers, trade, and commercial activities, and the taxation and land revenue systems.

DSE paper-II

History and Culture of Odisha- II

After studying this paper, the students should be able to understand the pre-modern and the modern history of Odisha such as

- Afghan and Mughal conquest and administration, Maratha administrative system in Odisha, and the early colonial occupation and the administrative system in Odisha.
- Popular resistance movements against the colonial rule, the causes, and effects of the great famine of 1866 during the colonial rule. Besides the growth of education and the significance of linguistic movements in Odisha.
- The rise of Odiya nationalism, the formation of a separate province, and the Prajamondol movements in the first half of the 20th century Odisha.

SEMESTER: I

CORE PAPER: I

HISTORY OF INDIA -I

- To acquire knowledge regarding the primitive life and cultural status of the people of ancient India.
- To gather knowledge about the society, culture, religion and political history of ancient India as well.
- To learn about the origin of the Indian empire, trade and urbanizations of ancient civilization, like Harappan civilization, Vedic civilizations, later Vedic civilizations etc.
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CORE PAPER -II

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SEMESTER-II

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CORE PAPER -IV

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SEMESTER-III

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CORE PAPER -VII

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- They also acquire the knowledge about the Changing scenarios of the urban and rural societies after consolidation of the rule of the Sultanate of Delhi.
- They can learn about the activities of Delhi Sultanate i.e., revenue systems monetization, market regulations, growth of urban centers, trade and commerce, Indian Ocean trade etc.

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- The polity and administration of the Mauryan Empire as well as the Gupta Empire; the conquest phenomena of the emperors of these dynasties. Besides the political achievements of Harshavardhana.
- Conquest and Administrative system of the kings of Delhi sultanate; the Bhakti movement and the Sufi movements. The development of regional language.

SEMESTER-IV

CORE PAPER –VIII

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- Students will learn about the European crisis of economic, social and political dimensions as well as the English Revolution, major issues like political and intellectual currents in 17th century.
- They will learn about the rise of modern science in relation to European society by the Renaissance and the European politics in the 18th century like parliamentary monarchy, patterns of Absolutism in Europe and prelude to the Industrial Revolution in England and other European countries.
- They also acquire the knowledge transition the society and economy from feudalism to capitalism.

CORE PAPER –IX

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- They will learn Sufi movement in India and the role of Ulema during the Mughal rule.
- Students gathered knowledge about Akbar religious policy and land revenue system during the mughal rule.

CORE PAPER -X HISTORY OF INDIA -V (1605-1750)

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- Students also learn how the art and architecture developed during the Mughal period.
- They will know about the Mughal, Rajputs relationa.
- Students gathered knowledge the emergence of Shivaji and decline of the mughal rule.

GE paper -II (Semester: III) History of India- (1750-1950)

After reading this paper, the students will be able to understand

- War, conquest, and expansion policies of British in the Indian land such as the battle of Plassey, conquest of Mysore and Maratha confederacy, and the diplomatic alliances of British with the Indian princes.
- Popular resistance against the British between the period of 1750-1850 as well as the policies adopted by the colonial government for the consolidation of the Indian landmass.
- Social and cultural changes such as reforms in religious aspects of people, in press and educations, the position of women, and the caste system.
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SEMESTER-V CORE PAPER -XI HISTORY OF MODERN EUROPE (1780-1880)

- They will learn about the French Revolution and its impact of European countries. Unity and power makes people to strength which has showed in the French revolution in 1789.

- How the Industrialization had occurred and it's affected on socio economic transformation of Europe.
- They will know about the politics of super power among the European countries.
- How the sense regarding the nationalism and unification had developed among the European countries on eve of the 2nd world war.

CORE PAPER -XII

HISTORY OF INDIA (1750-1857)

- Students can learn about foreign trade and early forms of economy in Bengal, Mysore and Odisha.
- Students also gather knowledge about oriental education in modern India.
- They will know about causes and consequences of Revolt of 1857.
- To acquired knowledge on growth of modern industry in India.

DSE paper- I

History and culture of Odisha-I

After studying this paper, the students will be able to understand

- Historical geography of Odisha (Kalinga, Utkala, and south Kosala kingdom), and the significance of Kalinga war as well as the life and achievement of Kharavela in Odishan history.
- Rise of new royal dynasties during the early medieval period such as Sailodbhaba, Bhaumakaras, and Somavamsins.
- Rise of the royal imperial royal dynasties like the imperial Gangas, Suryavamsi Gajapatis, and the political developments in Odisha after the Gajapatis.
- The socio-cultural life of early medieval Odisha in its growth and decay of urban centers, trade, and commercial activities, and the taxation and land revenue systems.

DSE paper-II

History and Culture of Odisha- II

After studying this paper, the students should be able to understand the pre-modern and the modern history of Odisha such as

- Afghan and Mughal conquest and administration, Maratha administrative system in Odisha, and the early colonial occupation and the administrative system in Odisha.

- Popular resistance movements against the colonial rule, the causes, and effects of the great famine of 1866 during the colonial rule. Besides the growth of education and the significance of linguistic movements in Odisha.
- The rise of Odia nationalism, the formation of a separate province, and the Prajamondol movements in the first half of the 20th century Odisha. Beginning of the nationalistic politics in Odisha, The quit India movement on the line of national level and the merger of princely state for the separate identity for the Odisha state.

SEMESTER-VI

CORE PAPER -XIII

HISTORY OF INDIA (1750-1857)

After studying the Paper, the students will be able to understand

- The purpose of development of new ideas aiming at a multi-dimensional change of society.
- The 19th-century Indian thinkers and their ideas on various aspects of socio-cultural life, and the overall impact of these new ideas on the existing socio-cultural-religious beliefs in India.
- The methods advocated by the 19th-century intellectuals to implement their ideas of reform, the issues, and ideas that were raised during the reform movement,
- The constraint, which existed during the reform movement this time, and the limitations and weaknesses of their endeavors.

Core paper- XIV

History of Modern Europe II (c. 1880-1939)

After studying this paper the students will be able to understand about the

- The specificity of the period between the end of the First World War and the economic crisis of 1929. The nature of the new regimes in countries like Britain, France, and Germany in the period of colonialism, imperialism, and capitalism.
- The nature of the crisis that gripped the whole of Europe between 1880-1939 A.D. and the factors that led to the economic depression of 1929, besides how the developments of the 1920s shaped the political happenings in the 1930s and even later.
- The development of extreme right, the general features of fascism as an extreme right-wing in Italy and Spain as the political fronts; The rise of the Nazi party in Germany as the classic fascist regime as well as The rise of racism in Germany

- Major ideological strands, which dominated the polity of Europe in the 20th century: liberal democracies and right-wing regimes.
- The rise of the socialist world. Socialism as an idea had been in vogue throughout the 19th century. A concrete polity only in 1917 in Russia through a revolution (Russian revolution). The conditions in Russia which led to the first socialist revolution; The process of building socialism in Russia after the revolution; The details of 'war communism and the New Economic Policy as significant stages in the building of socialism in Russia, and the spread of socialist ideology throughout the world.

DSE paper III

History and culture of Odisha- III

After studying this paper the students will be able to understand the

- The growth, expansion, and effects of the popular religions such as Buddhism, Jainism, and Saivism in Odisha.
- Growth and expansion of Saktism and the rise and growth of the Jagannath cult in Odisha
- Growth of Odia literature such as the Sarala age and the Panchasakha age.
- Growth of popular art and architectural tradition of Odisha such as Buddhist and Jaina art as well as the evolution of temple architecture in Odisha.
- Growth, expansion, and effects of Christianity, Mahima dharma, and the Neo- Hindu Movements.


DSE paper- IV

History of Contemporary Odisha (1947-1980)

After studying this paper the students should learn

- Political developments in the contemporary time in Odisha, which included the second and the third congress ministry, Integration of the princely states with Odisha and the formation of the new capital of Odisha, abolition of the Zamindari system, and the achievements of Biju Patnaik.
- Achievements and the challenges of the coalition governments in Odisha and the role of R. N. Singdeo and Sadasiba Tripathy.
- The local self-government, Panchayati raj systems in rural and urban areas.


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HEAD OF THE DEPARTMENT

- Post-independence economic development in the sectors of Industries, agriculture and irrigation, transport, and state communication systems.
- Social problems and developments such as the causes and effects of the peasant movements in Odisha as well as the growth and development of art and craft tradition of Odisha in the contemporary period.

COURSE OUTCOME FOR HISTORY STUDENTS

After completion of this course it helps to grow ethical values among history students. They gathered knowledge about the socio-cultural heritage of India and world as well. This course helps to grow intellectual values among history students and to develop liberal values among them. As a branch of social science, this course helps to develop social values among history students.

Above all, it helps to grow national and international understanding among history students. Careers of history students can engage as educators in elementary schools, secondary schools and post secondary, historic Sites and Museums etc. as a researcher they will associated in several fields like, Museums and Historical Organizations, Cultural Resources Management and Historic Preservation etc. this course provides to the students as communicator like, Writers and Editors, Journalists, Documentary Editors and Producers of Multimedia Material.

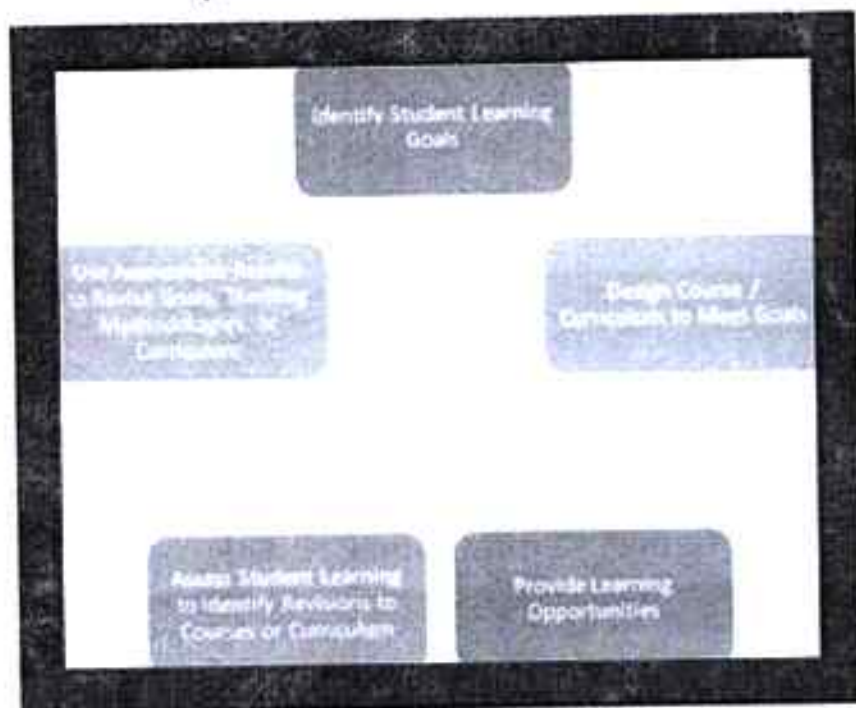
History Student can employ as Information Manager in different fields i.e. Archivists, Records Managers, Librarians and Information Managers. They will engage as Lawyer like, Lawyers and Paralegals, Litigation Support, Legislative Staff Work and Foundations. They might be involved in Business Associates as Historians in Corporations or Contract Historians, Historians and Nonprofit Associations. They may directly engage in different ranks of the Archaeological Survey of India according to their performances like as Heritage Manager, Historic buildings inspector or conservation Officer, Museum Education Officer etc.



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Department of Journalism and Mass Communication

(UG: 1st Semester to 6th Semester)



Learning Programme Outcomes:

The program in Communication and Media Studies is an integral part of Goucher's 21st century vision for liberal arts education. Students are grounded in media and cultural history and are provided with the means to master communication in contemporary media. They are challenged to develop a critical perspective and make ethical judgments about contemporary and future media issues. Academic and theoretical classes are supplemented with skills-oriented coursework, applied internships, and research activities.

The program seeks to foster students' ability to express and communicate ideas, arguments, historical findings, and creative insights. Students develop their writing skills in both analytical and creative contexts, often expressing themselves using emerging media technologies. They learn to apply theoretical concepts to creative work and experiential insights about production to their intellectual research. Students are encouraged to pursue

specific interests in digital media, television and film studies, video and audio production, print, radio and television journalism, photography, public relations, and popular culture studies. Students also further their career readiness by completing internships in a variety of arenas, including social media, television, radio, public relations, film, and news writing and production.

Students will leave the Communication and Media Studies program as lifelong learners, ethical and critical problem solvers, innovative and effective creators and communicators across media forms, and independent intelligent people who view life in historical context, with inclusive multicultural perspective, and with a critical understanding of power in society.

Course Outcomes:

Core-1: Introduction to Media and Communication

- To introduce basic concepts of communication and its role in society
- To introduce students to various processes and theories of communication
- To introduce the students to basics of journalism and its role in society
- To introduce different types of media their characteristics, merits and demerits
- The students can understand various types of journalism and their importance
- The units provide students an understanding of the importance of public opinion and role of journalism in framing it.

Core-2 History of the Media

- To introduce students to the history of print media and its role in Indian freedom movement.
- To introduce to evolution and growth of Indian cinema, regional and parallel cinema
- To introduce to history and evolution All India Radio, New developments in Radio
- To introduce students to history and development of television industry
- To help students understand the history and basics of online media.
- To provide the students a basic idea on cybercrimes and cyber laws that governs them

Core-3 Reporting and Editing for Print

- To introduce students to basics of reporting and writing for print media.
- To enable the students understand news values and qualities of reporters.
- To enable students to understand newspaper organization structure and editorial department.
- To introduce to different types of reporting and their importance
- To enable students to understand different forms of journalistic writing
- To provide them basic understanding on various media laws and ethics

Core-4: Media Ethics & Law

- Explain ethical theory & practice used to reach ethically based decisions.
- Analyze the moral dimensions of media ethics problems in various dilemmas faced by the media.
- Apply ethical and legal frameworks to resolve a mass communication dilemma.
- Demonstrate an understanding and appreciation of the First Amendment and its role in society.
- Employ an understanding of key ethical and legal issues facing journalists and practitioners in advertising, public relations and entertainment media.
- Formulate personal strategies and guidelines for confronting legal and ethical challenges in journalism, advertising, public relations and entertainment media.
- Analyze the role of digital technology and its impact on legal and ethical issues.

Core-5: Radio Journalism

- Plan, write and present daily local and national radio news bulletins on air
- Discuss key professional issues relevant to the radio news environment
- Work co-operatively and effectively as a team member in a working radio station environment
- Competently operate a studio panel, studio recording equipment and digital audio editing
- Exercise critical thinking skills to analyse information and make judgements on news value

Core-6: Television Journalism

- Produce a 3 minutes item that demonstrates an understanding of the basic skills involved in putting together an item for television.
- Demonstrate understanding of the production process and of the stages in overview of how productions work.
- Generate ideas and research for different types of television production and become familiar with ways to organise content and contacts
- Identify and apply different television production techniques
- Develop programme ideas from proposal to treatment level.
- Develop interview techniques for television
- Demonstrate knowledge of basic camera and sound operations
- Demonstrate knowledge of editing software and the editorial skills necessary to tell a story for television.

Core-7: Development Communication

- To enable students to understand the various factors of economic development
- To enable to learn the problems of human development and required measures to overcome them.
- To introduce students to development issues in India and coverage of media on these issues.
- To explain the role of folk media in development communication
- To inculcate the idea of social responsibility and create awareness of state and central government welfare measures.
- To train the students on various media programme formats of development communication

Core-8: Introduction to Advertising

- Introduce students to basics of advertising and its role in society
- Train them in basics of ad campaign designing and copy writing

- Understand the scope of advertising from traditional print, electronic, and outdoor campaigns; to "nontraditional" online, social media, and guerilla marketing promotions.
- Recognize the societal impact of advertising and the need for ethical practitioners.
- Identify the role account management, research, creative, and the media department play in a full-service advertising agency and the full-time positions available in each.
- Target mass and niche audiences via audience research to create an advertising plan.
- Utilize persuasion theories and advertising strategies when developing an advertising campaign.
- Assess an organization's advertising needs and recommend solutions that can be carried out via social media.
- Create an advertising campaign.

Core-9: Introduction to Public Relations

- Make the students understand the scope, functioning of Public relations
- Enable students understand the various PR tools and publics
- Introduce to role of PR in government and private sectors
- Provide students an understanding of various forms advertising
- Understand the scope of public relations and the principle role research, counselling, and communication play in public relations activities.
- Recognize the ethical component involved in responsible public relations practice
- Identify the primary strategic functions of news management, community relations, crisis management, and lobbying and the full time positions available in each.
- Conduct a communication audit to achieve client goals and meet the needs of diverse publics.
- Utilize persuasion and communication theories when formulating public relations tactics.
- Assess an organization's public relations needs and recommend solutions that can be carried out via social media.
- Create a public relations campaign.

Core-10: Media Industry and Management

- Understand micro and macro economics media Industry
- Explain operation of media business and its managerial aspects.
- Fore see the future challenges in emerging media platforms and importance of technological developments.
- Understand significance of marketing, its concept, scope and new trends.
- To learn about the basic principles and practices of Management.
- To learn the management styles of Media Production Houses.

- To learn the skills needed for decision Making and Monitoring
- To know and learn the concepts and Principles of Management
- To learn the style, methods of media Human Resource Management.
- To be able to assess the quality and efficiency of media management.
- To familiarize with media technology management
- To learn to compare and evaluate media production management styles.
- To learn the marketing managerial skills through case studies

Core-11: Online Journalism

- Demonstrate advanced skills in the use of industry-standard media tools at the forefront of the field to produce high quality online content and web sites.
- Demonstrate a critical comprehension in the initiating, design and construction of integrated web-based media sites.
- Critically appraise the online media landscape and the potential of new technologies and audiences.
- Recognise and deploy appropriate online journalism strategies to engage readers across a range of online media.
- Assume immediate employment as professionally equipped journalists and communications specialists with the capacity to participate in teams in print, electronic, radio, TV, publishing, public relations or other related media

Core-12: Global Media and Politics

- Familiarize the student with a multi-cultural global perspective of a multi-media world.
- Create a foundation of media literacy through exposure to communication events using videos, selected readings, and online resources.
- Manifest in a world that depends on multi-media to feed a populace with an increasing need for instantaneous information.
- Present basic media and communication elements, foundational and commonly found in all or most international media formats.
- Emphasize a more globally engaged media industry now drives media content such as a free press, branding, agenda setting, propaganda, stereotyping, globalization, etc.

The programme addresses key questions central to the relationship between global media and politics; culture and society, such as:

- What is the relationship between 'everyday life' – our own and that of others – online and offline?
- Can political institutions ensure that the online environment is safe for all, or should this be left to internet service providers?
- How do we protect fundamental rights and freedoms online such as freedom of expression in the wake of terrorist attacks?
- What are the differences between how public and private broadcasters, activists, artists, and communities make use of social media?

Core-13: Internship

- Students will undertake a four-week internship in media and communication organizations as newspapers, magazines, advertising agencies, public relations concerns or anything approved by the Head of the Department.
- Students will be evaluated based on the feedback received from the training institute, student's representation and detailed report.
- The student shall be required to produce a certificate to the effect that he or she shall be he/she completed the prescribed internship programme.

Core-14 –Project Report

- Every student will have to prepare Project Report in any area of Journalism and Mass Communication detailed in the curriculum under the guidance faculty member.
- The objective of the exercise is to enable a student to have an in-depth knowledge of the subject of his/her choice in the field of Journalism and Mass Communication.
- The guides should certify that the Project is based on the work carried out by

the candidate. Three copies of the dissertation should be submitted to the Head of the Department. The students at their own cost should carry out preparation of the project. The Report will be evaluated both by the internal and external examiners.

DSE-I: Media, Gender and Human Rights

- The course can make student aware of their rights, expose its violations and focus attention on people and areas in need of the protection of human rights and pursue their case till they achieve them. Media gives publicity to the individuals and organisations, which are engaged in securing human rights.
- The course is to recognize the crucial role of media in achieving gender equality in all domains by creating gender-sensitive and gender-transformative content and breaking gender stereotypes.
- Media should lead the way towards gender equality through gender-sensitive and gender-transformative content. For this the course need coherent policies, rules, and mechanisms on all levels, starting with national media policies and media industry self-regulation.
- Safety of female media workers needs to be a key priority for Member States and the media industry. A culture of safety needs to be created and effective mechanisms for complaints and redress need to be put in place.

DSE-II: Tribal communication

- Understand the significance of tribal communication.
- Describe sources of tribal communication
- Meaning and features of different medium: soft tribal communication: Performing Art, visual art, Integrated Tribal development etc

DSE-III-Print Production

1. Evaluate the advantages/disadvantages of one-, two-, and four-colour printing in order to choose or recommend the most appropriate method for a particular job.

2. Describe and utilize the basic digital file construction process for print and web.
3. Differentiate between the major printing processes to choose the appropriate method for a job.
4. Describe various proofing processes and their purpose.
5. Differentiate between colour models as they apply to print and web production
6. Recognize how paper, bindery and quality control procedures affect the outcome of a commercially printed piece.
7. Utilize appropriate terminology when dealing with clients, peers, and suppliers.

DSE-IV: Camera and editing for TV

1. Improve skills in contemporary video technology and operation of cameras, audio, lighting and other television production equipment
2. Achieve critical appreciation for the aesthetics of sound and image production
3. Improve literacy in film and video, including shot composition and continuity editing
4. Develop or improve skills in digital nonlinear post-production


Head of the Department


20.03.2021
PRINCIPAL
RAYAGADA AUTONOMOUS COLLEGE
RAYAGADA

Department of Industrial Relations and Personal Management

(UG: 1st Semester and 6th Semester)

The programme is based on business and social science disciplines and supported by decision-making tools in business and social research. The general philosophy is to develop the mind, impart both theoretical and practical knowledge on individuals, to develop self-confidence, innovativeness and self-reliance in designing, implementing and controlling human resource and industrial relations policies and practices. The course provides basic knowledge and skills needed for the understanding and analysis of problems related to the management of people at work in industrial, commercial, public and other humanitarian organizations. The course is career orienting in nature that provides many jobs in various fields both government and private.

This course is design to impart the basic and theoretical concept in the field of Industrial Relations and Personnel Management. The course work provide theoretical knowledge to the student to develop their mind, self-confidence, innovativeness and self-reliance in designing, implementing and controlling human resource and industrial relations policies and practices. Course provides basic knowledge and skills needed for the understanding and analyzing the problems related to the management of people at work in industrial, commercial, public and other human organizations. The course is suitable to equip student with analytical skills needed for recognizing, defining and solving problem as well as to develop leadership and interpersonal relation skills in managing people. The main objectives of the course work are:

1. To introduce the basic concepts, functions and processes of Personnel Management.
2. To create an awareness of the role, function and functioning of personnel management in Industrial organization.
3. To build awareness of certain important and critical Issues in Industrial Relations.
4. To develop an understanding of interaction pattern among labour, management and the organization.

Semester-I

Core-I: Industrial Relations

Course Objectives:

- To enlighten the students about the concept and scope of Industrial Relations; and various models and methods to analyze cooperation and conflict.
- To analyze meaning causes and consequences of Industrial disputes and the Collective bargaining.
- To accustom the students Labour Management cooperation & significance of labour participation in various committees

- To explain the students about Grievance Handling Procedure and need of Disciplinary action.

Course Outcomes:-

- To understand Industrial Relations Problems there of like co-operation & conflict.
- To understand the cause of Industrial disputes and collective Bargaining.
- To expose the role of healthy Labour Participation through committees for Industrial peace.
- To understand Modern procedure & Disciplining Procedure & Action.

Core-II: Labour Legislation -1

Course Objectives:-

- To highlight the scope and types of labour legislation.
- To expose the importance of Factories Act 1948 and Mines Act, 1952.
- To introduce the students Industrial Employment standing orders Act, 1946 & trade union Act, 1926.
- To acquaint students the importance of Industrial disputes Act, 1947.

Course Outcomes:-

- To learn the importance of labour legislation.
- To strengthen their knowledge in different provisions under the factories Act, 1948 & Mines Act, 1952
- To receive knowledge about the payment of subsistence Allowance & Right & Responsibilities of Trade Unions.
- To gain the perception on the various settlements Machinery under Id Act, 1947.

Semester-II

Core-III: Principles & Practices of Management

Course Objectives:-

- To introduce the student to Managements different functions.
- To comprehend the development of Management thought. 3. To view Management functional areas in different contest.
- To understand the strategic mgt & concept of core competence. 5. To understand the Business ethics concept and practices in Management.

Course Outcomes:-

- To get idea about the Management concept adjectives & functions.
- To grasp the major theme of Development of Management thought.

- To comprehend the functional areas of difference Management like material marketing, financial management etc.
- To understand the concept of strategic management & Business ethics.

Core -IV: Labour Welfare

Course Objectives:-

- To acquaint the student with labour welfare concept and Agencies.
- To understand the statutory and non-statutory welfare program.
- To make out the difference causes of Accident & preventive steps.
- To highlight on the major occupational diseases and curative programmes.

Course Outcome:-

- To widen the idea about the welfare concept.
- To comprehend different types of labour welfare programmers.
- To grasp the major theme on Accident and Occupational Diseases.
- To understand the concepts of labour administration in state and central levels.

Third Semester

Core-V: Human Resource Management

Course Objectives:-

- To create awareness among the students about mgt Concept.
- To introduce students of the major Development thought of management.
- To enable the students to appreciate the Recruitment, selection Training & Development Methods.
- To understand the motivation and it's various types.

Course Outcome:-

- To gain knowledge about the importance of human resource Management.
- To motivate the statutory & non-statutory labour welfare programmes
- To understand the Accident causes & preventive steps.
- To learn some theories of motivation.

Core-VI: Trade Unions and Employment Relations

Course Objectives:-

- To come to an understanding of Meaning Functions types of trade union.
- To teach the student about different theories of trade union.
- To provide an insight in to the Problems of trade union.

- To understand Employer's federations Growth function Role of employer's federations in industrial Relations.

Course Outcome:-

- To get exposure to the meaning function & types of trade unions.
- To gain an insight in the growth & development of various trends of trade union movement in India & its different theories.
- To understand the problems and challenges of trade union.
- To understand the growth, role and functions of Employer's federation in India.

Core-VII: Social Security

Course Objectives:-

- To acquaint students with social security concept scope and approaches.
- To familiarize them with provisions Related to employee's compensation.
- To make them gain knowledge of the terms and concepts exclusive for maternity benefit Act, 1961.
- To enable them different benefits of employee's state insurance Act, 1948.

Course Outcome:-

- To acquaint them with concept, scope approaches of social security.
- To understand the provisions related to workmen's compensation.
- To gain knowledge on the benefits of the under the of employee's state insurance.
- To understand the key terms of Gratuity payment.

Fourth Semester

Core-VIII: Human Resource Development

Course Objectives:-

- To help the students to understand the importance of HRD and its Mechanism.
- To perceive and grasp the concept of career planning & Development.
- To understand the role of HR in institutionalizing knowledge Mgt in on organization.
- To educate the students on Training and Development.

Course Outcome:-

- To learn a basic understanding of the concept, philosophy and importance of human resource Development.
- To understand the career planning and Development.
- To gain knowledge of knowledge management.
- To learn a understanding of Training & Development concept objectives & methods

Core-IX: Labour Economics

Course Objectives:

1. To teach the Nature and scope of labour Economics.
2. To introduce the students about labour market classification and Characteristics.
3. To make them know what is wage differential & wage policy in India.
4. To help unemployment causes effects & problems.

Course Outcome:-

1. The student would have learnt Economic systems & scope of labour economies.
2. Labour market concept and classification would have been taught & learnt.
3. The students would be able to understand and grasp the wage concept & wage policy in India.
4. The students would have acquainted themselves with unemployment causes, effects & remedies of unemployment.

Core-X: Labour Legislation-2

Course Objectives:-

- To acquaint the students with fixing & revising of minimum wage.
- To make them gain knowledge maintenance of Registers and Records related to payment of wages.
- To familiarize them with eligibility and disqualification for Bonus.
- To introduce the students the different facilities provided under the ISMW Act, 1969.

Course Outcome:-

- To acquaint the students about the provisions under minimum wages Act, 1948.
- To familiarize themselves with the Responsibility for payment of wages.
- To provide a basic understanding of the different provisions under of payment is Act, 1965.
- To gain knowledge out the benefits under Interstate migrant workmen Act, 1979.
- To learn the Registration of establishments employing contract labour.

Fifth Semester

Core -XI Corporate Social Responsibility

Course objectives:

- To learn to corporate social responsibility concept & corporate Governance.
- To study the history of CSR in India.
- To learn the Role of various institutions in CSR.
- To be trained introduction, scope and types of social Audit.

Course objectives:

- To know the development of business & importance of CSR.
- To interpret the history of CSR in India & stake holders approach.
- to know the role of NGOS, Educational Institution and media in CSR.
- To understand the meaning scope & adjective of social Audit.

Core-XII: Compensation Management

Course objective:-

- To impart basic knowledge of the compensation management & planning.
- To understand the compensation policy formulation as a retention strategy.
- To describe about different types of compensation.
- To know about the incentive and benefits administration.

Course Outcomes:-

After the completion of the course students will be able to.

- To understand the concept definition of compensation management and Job evaluation.
- To understand the both the internal & External equity in compensation managements.
- To describe about effects of compensation on performance and motivation.
- To explain the Types of wage Incentive plans & wage policy.

DSE-I Strategic Human Resource Managements

Course objectives:

- To make aware about meaning concept and scope of strategic HRM.
- To understand stages in the evolution of business and hrp Integration.
- To learn Business strategy planning problems.
- To impart knowledge about implementation of the strategy

Course Outcomes:-

At the end of this course students should be able to;

- To get knowledge about the concept and scope of SHRM.
- To understand Integration business strategy and HR strategy.
- To Understand Business strategy problems and implications for HR managers.
- To develop the knowledge about various involved in implementation.

DSE-II: Performance Management

Course objectives:-

- To understand the meaning concept and importance of performance managements.

- To describe about performance planning.
- To describe the process of analyzing performance problem.
- To provide knowledge about the importance of competency management.

Course Outcomes:-

Upon successful completion of the course students will be able to

- To explain the meaning concept and importance of performance mgt.
- To understand performance management & pay compensation.
- To understand about the performance managements and team.
- To get Knowledge about competency mapping and counselling strategy for improving performance.

Sixth Semester

Core-XIII Organizational Behaviour

Course objectives:-

- To understand Nature and scope of organization Behaviour theories.
- To describe about formal organization system.
- To learn about strategies for managing social system.
- To provide Behaviour modification & reinforcement.

Course Outcomes:-

After the completion of the course students will be able.

- To make aware the concept & scope of organizational behavior.
- To explain formal organization system & Individual system.
- To know about the social system and Group Dynamics.
- To understand the concept & methods of organizational development.

Core Course-XIV: Field work report and viva-voce

Course objectives:-

This course is to provide basic practical knowledge of industrial process.

Course Outcome:-

Connect acquired knowledge and skills with practical problems of the industry.

DSE-III: Indian Labour Problems

Course Objectives

- To understand the major problems of Indian workforce like labour unfair recruitment process, limited security and welfare measures, etc absenteeism and migration etc
- To study issues of Indian labour like child labour and unorganised workforce, seasonality of work, gender discrimination, indebtedness, labour servitude etc

Course Outcomes

- To acquire knowledge about issues and challenges of Indian labour force.
- To aware the rights and welfare system and security measures to deal with Indian labour problems
- To examine issues of labour reforms as how to resolve issues behind labour problems

DSE-IV: Organizational Change & Development

Course objectives:-

1. To understand about the organizational change & importance from different perspective.
2. To describe about the types of change
3. To know the concept and scope of OD.
4. To provide the conditions for optimum success of OD.

Course Outcome:-

1. To get knowledge about the organizational change meaning, concept and importance.
2. To understand the steps to implement change in Business process.
3. To learn about the OD interventions both traditional and modern methods.
4. To understand about organizational Development process.

General Elective-I: Industrial Relations

Course Objectives

- To introduce the students about Industrial Relations concept.
- To teach about Industrial disputes meaning causes consequences and methods of settling Industrial disputes.
- To acquaint the students with trade union & its problem.
- To highlight the model Grievance Procedure & Disciplinary Action.

Self-financing Courses

Department of Education

(UG: 1st Semester to 6th Semester)

1. **Professional Capacity Building:** Apply the knowledge of Philosophy, Sociology, Psychology Management, and ICT to set the context of teaching profession and advances the capacities in teaching, research and extension work in the field of education in general and Teacher Education Institutes in particular.
2. **Academic Integrity and Professional Ethics:** Demonstrate academic integrity and professional ethics by keeping self abiding to rules, regulations, values and high standards in teaching, research, administration at diversified educational setting and Teacher Education Institutes.
3. **Resilience and cope up with Complex issues:** Demonstrate spirit of work in diversified situations and apply knowledge & skills to cope up educational issues in complex situations with appropriate consideration for the rules, norms and the Social, cultural, and environmental context.
4. **Academic Administration and Management Capacities:** Apply the knowledge of Educational administration & management and other allied subjects like Philosophy, Sociology, Psychology etc. in academic planning, organization, evaluation, decision making, resource management according to predetermined goals, norms and standards.
5. **Continuous Academic Development:** Identify own educational needs and requirements, keep academic development and learning in an independent way in the context of change in different aspects of education and teacher education.
6. **Commitment towards Society and National Goals:** Recognize areas of commitment, accountability, constitutional values, and national goals and perform accordingly.
7. **Sensitivity for Emerging Issues:** Apply the knowledge & skills to deal with Issues related to population, environment, gender equality, different literacy, Yoga & Health Education etc. and respond to emerging issues by applying critical, constructive and creative thought process.
8. **Research and Knowledge Creation:** Involve in knowledge dissemination, knowledge creation, research and innovative educational practices related to different stakeholders of education.
9. **Independent and Team Work Capacities:** Perform Function effectively either in the role of member or leader in diversified educational settings and Institutions of Teacher Education.
10. **Professional Communication Skills:** Use diversified tools & technologies of communications and communication Skills to serve the professional purpose and standards expected from classroom to broader zone of educational activities.

Class	Course	Course Outcomes
UG	Core-I: EDUCATIONAL PHILOSOPHY	<p>1. To demonstrate an understanding of the several different senses of education, including education as experience, education as upbringing, education as character building, education as intellectual development, education as personal discovery, education as institutional achievement, education as social praxis;</p> <p>2. To explain and analyse competing theories of education, especially education as an instrument for the achievement of societal ends; education as an intrinsic good; education as harmonization with community values; and education as the development and empowering of individual autonomy;</p> <p>3. To distinguish between the theoretical aspects of education and the practice of teaching, as well as demonstrate an ability to provide resolutions for specific problems that arise in the practice of teaching, such as promoting curiosity, fostering self-discipline, and distinguishing learned behaviour from subjective insight</p> <p>4. To develop an ability to employ aspects of philosophical analysis and reasoning, as well as critical thinking skills, in the context of writing about the philosophy of education</p> <p>5. To recognize and explain some of the basic philosophical concepts which underlie any analysis of education, including concepts such as knowledge, learning, rationality,</p>

Course Outcome:-

- To learn Industrial Relations Meaning aspects and scope.
- To understand Industrial disputes & collective bargaining process.
- To acquaint themselves trade union meaning functions & problems.
- To gain knowledge grievance & Disciplinary procedure

Generic elective-II

Labour Welfare

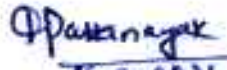
Course Objectives

- To familiarize the students with labour welfare meaning concept & principles.
- To make them gain knowledge of migration.
- To create awareness among the students about social security.
- To Educate the Students on Labour Absenteeism.

Course Outcome:-

- To learn labour welfare meaning & types.
- To gain knowledge about Genesis of social security in India.
- To understand meaning & significance of labour problems like migration.
- To expose to the labour turnover and labour absenteeism


16-03-2021
Principal
Rayagada (Auto.) College
Rayagada


16-3-2021
Head of the department

		emotions, experience, personhood, objectivity, morality, autonomy, society, value and transformation.
	Core-II: EDUCATIONAL PSYCHOLOGY	<ol style="list-style-type: none"> 1. Ability to think critically, evaluate, understand, apply, and communicate scientific research 2. Ability to evaluate and apply research designs 3. Awareness and evaluation of how diversity issues and protected populations influence research 4. Ability to evaluate and apply statistical and measurement principles to their area of research. 5. Development of professional identity appropriate for future career plans 6. To obtain a broad basic knowledge of the core areas of educational research methodologies, quantitative, qualitative, and evaluative research methods. 7. To adopt a critical, scientific approach to professional activities. 8. To conceptualize students from a variety of theoretical and scientifically-informed frameworks, present such a conceptualization to others and establish means and methods to evaluate its accuracy
	Core-III: EDUCATIONAL SOCIOLOGY	<ol style="list-style-type: none"> 1. To identify the distinct characteristics of a sociological perspective in the study of education 2. To focuses attention on the social factors that both cause and are caused by education. 3. To a range of sociological theories to explain and guide research into the various levels and types of education which contributed to the development of methodological and

		<p>statistical techniques.</p> <ol style="list-style-type: none"> 4. To introduce students various educational opportunities for ensuring equity and Inclusion in diversified heterogonous society
	Core-IV: CHANGING PEDAGOGICAL PERSPECTIVE	<ol style="list-style-type: none"> 1. a shift in classroom structure, 2. improvement in classroom climate, 3. change in instructional methods and teaching goals, and 4. growth in collaboration and leadership.
	Core-V: EDUCATIONAL ASSESSMENT AND EVALUATION	<ol style="list-style-type: none"> 1. To communicate both orally and verbally about music of all genres and styles in a clear and articulate manner (comprehension). 2. To analyze and interpret texts within a written context (analysis). 3. To help students learn and to gauge student progress using the following categorizations: <ol style="list-style-type: none"> a. Placement, formative, summative and diagnostic assessment b. Objective and subjective c. Referencing (criterion-referenced, norm-referenced, and ipsative (forced-choice)) d. Informal and formal e. Internal and external
	Core VI: EDUCATIONAL RESEARCH	<ol style="list-style-type: none"> (a) Concept and Types of Educational Research (b) Design of Research and preparation of research proposal (c) Writing Research Report <p>To discuss the steps that a researcher is expected to know for conducting a research Study. It elaborates upon the quantitative and qualitative data analysis techniques, the use Of descriptive And inferential statistics, reporting the results of research Along with the characteristics and uses Of historical, descriptive, ethnographic and experimental methods.</p>

	Core VII: STATISTICS IN EDUCATION	<ol style="list-style-type: none"> 1. Identify and define basic statistics techniques which are needed for studying in psychology and education the educational data 2. To outline the distinct method of using raw data in the form of frequency distribution 3. To apply knowledge of statistical measures such as Mean, Median and Mode for analysis and interpretation of data. 4. To analyze the different measures of dispersion that are useful in the field of psychology and education 5. To Develop skills and knowledge to apply educational data through graphs for analyzing different descriptive measures.
	Core-VIII: HISTORY OF EDUCATION IN INDIA	<ol style="list-style-type: none"> 1. To have a fair knowledge about the prehistory, protohistory and the sources of the Indian Education. 2. To introduce the history of education during ancient, medieval, modern, pre-independence and post-independence India
	Core-IX: CURRICULUM DEVELOPMENT	<ol style="list-style-type: none"> 1. To Demonstrate an understanding the concept, functions, types, importance and scopes of Curriculum. 2. To outline the process of Curriculum Construction and the Principles of Curriculum Construction. 3. To describe the foundations of Curriculum Construction through psychological, sociological and philosophical foundations. 4. To construct 'Curriculum Evaluation' using the formative and summative evaluation. 5. To develop critical thinking in relation to the need of curriculum change and the factors affecting curriculum change.

	Core-X: GUIDANCE AND COUNSELLING	<ol style="list-style-type: none"> 1. To describe the meaning and importance of guidance and counseling. 2. To classify and compare the various records for assessing the students' strengths and weaknesses. 3. To Recognized the difference between Educational and Vocational guidance to meet the multiple needs of vocational guidance 4. To compare and contrast the determinant factors of job analysis and job satisfaction 5. To explain the concept of mental health and the processes of healthy adjustment for good interpersonal relationships. 6. To identify and define terms and techniques used for counselling
	Core-XI: DEVELOPMENT OF EDUCATION IN ODISHA	<ol style="list-style-type: none"> 1. To explain the statues, problems and issues of elementary education, secondary, higher secondary, and higher educational system in Odisha 2. To examine the status, emerging issues and problems of teacher in both pre-service and in-service in Odisha
	Core-XII: INFORMATION AND COMMUNICATION TECHNOLOGY IN INDIA	<ol style="list-style-type: none"> 1. To emphasise the educational Technology for the teacher and the student. 2. To provide conceptual understanding of ICT in education and use of computers in learning process 3. To apply software and ICT assessment Tools in Education 4. To connect the world through the social networking, usage and e-library etc.
	Core XIII: CONTEMPORARY TRENDS AND ISSUES IN INDIAN	<ol style="list-style-type: none"> 1. To discuss the basic aspects and problems relating to elementary,

	EDUCATION	<p>secondary and higher education</p> <ol style="list-style-type: none"> 2. To describe the role of various organizations functioning in India at different stages of education 3. To analyze the Govt. of India initiatives in providing alternatives schooling (non-formal education and adult education) 4. To identify some of the important modern trends in education – population education, sex education, value oriented, work-experience and Socially Useful Productive Work
	Core XIV: EDUCATIONAL MANAGEMENT AND LEADERSHIP	<ol style="list-style-type: none"> 1. To discuss the basic concept of educational management and compare the different types of management 2. To outline the procedure to be followed in educational planning 3. To analyze the problems of financing educational institutions and generate realistic solutions based on their sources of income 4. To identify the different factor that affects managerial behavior 5. Compare and contrast the different types of supervision 6. To understand the concept, principals, and process of management skills required in the education. 7. To understand the techniques of management of education scientifically 8. To acquaint the students with some management skills required in the educational environment 9. To able the students to apply the concepts techniques and process of management to the situation in education

		<p>10. To able students apply the procedures of supervision and inspection and bring about improvement in the field of education</p> <p>11. To outline the leadership theories, styles and importance in order to utilize the forces, knowledge, talent of teachers and students for improving both the quality of education and educational system itself</p>
	DSE-I: PEDAGOGY OF LANGUAGE (ODIA)	<p>1. To introduce Odia as Mother Tongue in School Curriculum</p> <p>2. To describe pedagogic Approaches to Teaching-Learning Odia</p> <p>3. To analyse curricular Activities like pedagogy analysis, content analysis, lesson plan etc in Odia</p> <p>4. To introduce different types and techniques of assessment</p>
	DSE II: PEDAGOGY OF SOCIAL SCIENCES	<p>1. To promote human values namely freedom, trust and respect for diversity by enhancing learner's ability to critically reflect on social issues having a bearing on individual and social well-being.</p> <p>2. To integrate concerns pertaining to environment, peace, gender, SC & ST and other disadvantaged sections of the society in an infused manner across disciplines.</p> <p>3. To classify and compare the cause and effect relationship in the context of occurrence of events, natural and social processes and their impact on different sections of society</p> <p>4. To understand the relevance of Social Sciences in order to appreciate the phenomena of continuity and change.</p> <p>5. To recognize the relevance of the subject in establishing inter-linkages with natural and social environment.</p> <p>6. To appreciate and inculcate the</p>

		values enshrined in the Constitution of India such as justice, liberty, equality, dignity, empathy, plurality and fraternity
	DSE III: POLICY AND PRACTICES IN SCHOOL EDUCATION IN INDIA	<ol style="list-style-type: none"> 1. To outline the policy perspectives of vocational and inclusive education for the betterment of school children 2. To describe school education policies and problems for minority children, SC and ST children, issues relating women empowerment, mother tongue based multilingual education at school level for accessing policy and equity.
	DSE IV: INCLUSIVE EDUCATION	<ol style="list-style-type: none"> 1. To understand more systematically the knowledge and be more critically aware of issues in inclusive education 2. To describe Policies & Frameworks relating international universal declaration, constitutional obligations to facilitate Inclusive Education 3. To provide Understanding and Support Needs of Students with Disability 4. To reflect critically upon and analyse perspectives regarding inclusion 5. To analyse and develop successful inclusive learning practices 6. To identify conceptual frameworks appropriate for investigating inclusion issues, examining the inclusivity of systems and for developing inclusive education 7. To develop techniques relevant to research scholarship.
	DSE IV: DISSERTATION/ RESEARCH PROJECT (Choice-based)	To select a research project on any Educational issue or problem or topic and prepare a report.


 Principal
 Rayagada Auto College
 Rayagada

Monalisa Barak
 Head of the Department

Department of Geography

Geography mainly concerns changes in spatial attributes in a temporal perspective. The Honours programme in geography is tailored to meet the students' specific educational and professional goals in mind. It focuses on spatial studies, qualitative as well as quantitative, and emphasises on human-environment relationship. The students are trained on advanced concepts of physical and human geography. The course allows them to concentrate on specific areas of the subject, on which they complete their field reports.

Programme Outcomes:

1. **Acquiring Knowledge of Physical Geography:** Student will gain the knowledge of physical geography. Student will have a general understanding about the geomorphological and geotechnical process and formation. They will be able to correlate the knowledge of physical geography with the human geography.
2. **Acquiring Knowledge of Human Geography:** They will be able to acquire the knowledge of Human Geography and will correlate it with their practical life.
3. **Ability of Problem Analysis:** Student will be able to analyse the problems of physical as well as cultural environments of both rural and urban areas. Moreover they will try to find out the possible measures to solve those problems.
4. **Conduct Social Survey Project:** They will be eligible for conducting social survey project which is needed for measuring the status of development of a particular group or section of the society.
5. **Application of modern instruments:** Students will be able to learn the application of various modern instruments and by these they will be able to collect primary data.
6. **Application of GIS and modern Geographical Map Making Techniques:** They will learn how to prepare map based on GIS by using the modern geographical map making techniques.
7. **Development of Observation Power:** As a student of Geography Honours Course they will be capable to develop their observation power through field

experience and in future they will be able to identify the socioenvironmental problems of a locality.

8. **Development of Communication Skill and Interaction Power:** After the completion of the project they will be efficient in their communication skill as well as power of social interaction. Some of the students are being able to understand and write effective reports and design credentials, make effective demonstrations, and give and receive clear instructions.
9. **Enhancement of the ability of Management:** Demonstrate knowledge and understanding of the management principles and apply these to their own work, as a member and leader in a team, to manage projects. They will perform effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Understand Environmental Ethics and Sustainability:** Understand the impact of the acquired knowledge in societal and environmental contexts, and demonstrate the knowledge of need for sustainable development.
11. **Life-long learning:** Identify the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of societal and environmental change.

Core -I: Geomorphology

The objectives of this course are to introduce the concepts in Geomorphology in adequate manner, many facets of surface relief features and to understand various aspects of their growth and evolution on the Earth. The course will provide an understanding of the conceptual and dynamic aspects of landform development. Students will also learn the relevance of applied aspects of Geomorphology in various fields.

Core-II: Cartographic Techniques (Practical)

Core-III: Climatology

The atmosphere and climate are a critical part of the earth system, and climatic variability and change are central to the issue of current and future global environmental change. The broad objective of the course is to introduce to the students the

fundamentals of atmospheric phenomena, global climate systems and climate change. On successful completion of this course, students should be able to understand the mean global atmospheric circulations and disturbances, world climate systems, climatic variability and change.

Core-IV: Thematic Cartography

Thematic maps normally include some locational or reference information, such as place names or major water bodies, to help map students familiarize themselves with the geographic area covered on the map. All thematic maps are composed of two important elements: a base map and statistical data. The lesson provides an introduction to basic statistical techniques, understanding measurement, and provides an understanding of how and when to standardize and classify GIS data.

Core-V: Environmental Geography

The basic objectives of the course are to apprise the students about our environment, to understand its interrelationship with man and his linkages with other organisms, which vary in different biomes and to sensitise the students with the Environmental problems and degradations. The Students will learn the importance of conserving biodiversity to maintain ecological balance as well as national and international concerns on various environmental issues.

Core-VI: Economic Geography

The course employs a geographical approach to provide insights and understanding of the economy. On completion of this course, and having completed the essential reading and activities, you should be able (a) to explain the importance of economic geography in analysing the ways societies and economies work, (b) To explain and apply key concepts and theoretical approaches in economic geography, (c) To discuss and critically evaluate these concepts and theoretical approaches, (d) To apply these concepts and theoretical approaches to key social and economic issues in the context of economic globalisation and (e) To discuss policy options for overcoming inequality and uneven development in the globalising world

Core-VII: Field Work and Research Methodology (practical)

Core-VIII: Evolution of Geographical Thought

The learning outcome is to discuss the evolution of geographical thought from ancient to modern times, to establish relationship of Geography with other disciplines and man-

environment relationships, and to analyze modern and contemporary principles of Empiricism, Positivism, Structuralism, Human and Behavioural Approaches in Geography.

Core-IX: Human Geography

The learning outcome is to gain knowledge about major themes of human geography, to develop an idea about space and society and to build an idea about population growth and distribution of population and to know about population –resource relationship,

Core-X: Statistical Methods in Geography

The outcome is to learn the significance of statistics in geography, to understand the importance of use of data in geography and to know about different types of sampling and to develop an idea about theoretical distribution.

Core-XI: Geography of India

The outcome is to know about their own countries land formation, climate and natural vegetation; to understand the economic resources of India and to understand the social distribution of population of their country. CO4. Develop an idea about regionalisation of India.

Core-XII: Remote Sensing and GIS

The course outcome is to know about remote sensing; to understand the satellite remote sensing; and to understand the image processing; and to develop an idea about satellite image interpretation.

DSE- I: Population Geography

The course outcome is to gain knowledge different aspects of population geography, and to develop an idea about the concept of Migration.

DSE-II: Hydrology and Oceanography

The course outcome is to describe and analyze the concepts of Hydrology and Oceanography; to understand the variations of global hydrological cycle and to emphasize the significance of ground water quality and its circulation and to study the behaviour and characteristics of the global oceans.

Core-XIII: Regional Planning and Development

The module focuses on the regional geography of India. a. Physical relief b. Drainage c. Climate d. Soil e. Natural vegetation. Their characteristics and distribution; deforestation and conservation of forest. It focuses on agriculture, power resources and industries of India; to familiarize the students with different concept of population geography like growth, distribution and migration and to make them aware of the different ethnic groups residing in India (santhals ,naga and the bhils).

Core-XIV: Disaster Management Based Project Work (Practical)

The course outcome is to understand the definition, classification of hazards and disasters CO2. Gain knowledge about approaches to hazard study; to develop an idea about factors, consequences and management of earthquake, landslide, flood and riverbank erosion; to acquire knowledge about human induced disaster. PRACTICALS: They have to know how prepare a project report based on any one field based case study on flood, landslide, earthquake and human induced disaster.

DSE-III: Urban Geography

Students can explain the town and cities in India and World perspectiveThe course outcome is to gain knowledge about the history of urbanization in the developed and developing countries; and to understand the functional differences between rural and urban settlementsStudents can define the problems of urban area and try to solve them. They will know the characteristics of urban settlement and to be able to identify the urban environmental problem and how to solve those problems.

DSE-IV: Regional Planning and Development

(PROJECT REPORT)

Project work /dissertation we considered as a special course involving application of knowledge in solving/analyzing/ exploring a real life situation/ difficult problem, A project/ dissertation work would be of 6 creates. A project/dissertation work may be given in lieu of a discipline.

Sijayalaxmi Choudhury
Head of the Department

Chm
12-03-2021
Principal
Rayagada Auto College
Rayagada

Department of Sociology

(UG: 1st to 6th Semester)

SOCIOLOGY UNDERGRADUATE SYLLABUS AT A GLANCE

(CBCS for Honours Students)

Nature of Paper	Total No. of Papers	Total Marks	Total Credits
Core	14	100x14=1400	6x14=84
Discipline Specific Elective	04	100x4=400	6x4=24

Course Structure

DISCIPLINE SPECIFIC CORE (14 PAPERS)

Number	Semester	Title of the Course	Marks	Credit
DSC. H. SOC. 1	1st	Introduction to Sociology-1	80+20	6
DSC. H. SOC. 2		Introduction to Sociology-2	80+20	6
DSC. H. SOC. 3	2nd	Indian Society	80+20	6
DSC. H. SOC. 4		Sociology of Environment	80+20	6
DSC. H. SOC. 5	3rd	Classical Sociological Thinkers	80+20	6
DSC. H. SOC. 6		Social Change & Development	80+20	6
DSC. H. SOC. 7		Sociology of Gender	80+20	6
DSC. H. SOC. 8	4th	Rural Sociology	80+20	6
DSC. H. SOC. 9		Globalization & Society	80+20	6
DSC. H. SOC. 10		Marriage, Family and Kinship	80+20	6
DSC. H. SOC. 11	5th	Research Methodology	80+20	6
DSC. H. SOC. 12		Social Movements in India	80+20	6
DSC. H. SOC. 13	6th	Population & Society	80+20	6
DSC. H. SOC. 14		Social Disorganization & Deviance	80+20	6

DISCIPLINE SPECIFIC ELECTIVE (4 PAPERS)

Number	Semester	Title of the Course	Marks	Credit
DSE. H. SOC. 1	5th	Sociology of Health	80+20	6
DSE. H. SOC. 2		Sociology of Education	80+20	6
DSE. H. SOC. 3	6th	Urban Sociology	80+20	6
DSE. H. SOC. 4		Field Work & Dissertation / Tribes of India	80+20	6

Learning outcomes for the sociology undergraduate program

1. To demonstrate knowledge of core sociological concepts.
2. To demonstrate knowledge of how to use theory to conceptualize a sociological problem.
3. To develop an ability to use social scientific research methods to address sociological questions.
4. To demonstrate the ability to communicate sociological knowledge to others.
5. To develop the knowledge, skills, and attitudes necessary to be engaged members of the community.
6. To possess analytical skills in areas such as policy analysis, administration/management, communication, quantitative analysis and problem solving.

SEMESTER-I

Subject Code: DSC-H-SOC-1

Paper I -Introduction to Sociology-I

This introductory paper intends to acquaint the students with Sociology as a social science and the basic concepts used in the discipline. It also focuses on the social processes and the social institutions that man encounters as a member of the society.

Objectives: After studying this paper the student can

- Can get to know the convergence and divergence of Sociology with other social science disciplines in terms of the subject matter, nature and scope of the discipline and its approach.
- Develop knowledge about its historicity.
- Can get acquainted with the basic concepts used in the subject.
- Can generate ideas about the social processes and social institutions man encounters as a member of the society.

Learning Outcomes

1. The students learn to apply the sociological perspective in understanding how society shapes our individual lives.
2. It also provides a foundation for the other more detailed and specialized courses in sociology.
3. The students also learn about the basics of doing field work and use it for doing field work based projects. They also learn to write project reports.
4. The students learn how to read and interpret complex ideas and texts and to present them in a cogent manner.

This paper is expected to clarify and broaden the student's notion about the subject, the basic concepts used and some universal societal processes. This will provide a wholesome picture about what the subject is all about.

Subject Code: DSC-H-SOC-2

Paper II- Introduction to Sociology-II

This part two introductory paper intends to provide some additional knowledge on the interrelationship between individual and society, the types of societies and the various social processes that contribute to sustain the society over a period of time.

Objectives: After studying these two papers, the student can

- Develop knowledge about the subject matter, nature and scope of the key topics and its approach.
- Develop knowledge about individual and society.
- Can get acquainted with the basic concepts used in the subject.
- Can generate ideas about the social processes and social institutions.

Learning Outcomes: This paper is expected to clarify and broaden the student's notion about the subject, the basic concepts used and some universal societal processes. This will provide a wholesome picture about what the subject is all about.

SEMESTER-II

Subject Code: DSC-H-SOC-3

Paper III-Indian Society

Every society has its own peculiar structure and there are some institutions universal to every society, but with their unique manifestations in each society. There are some change agents and initiatives that enable the society to change with the passage of time. This paper focuses on the structure of the Indian society and the changing aspects with the processes operating change agents and initiatives.

Objectives: After studying these two papers on Indian society, the student can

- Get an impression about the basic composition of Indian society, its historical moorings, basic philosophical foundations of the society and the institutions.
- Learn about the changing institutions, the processes, the agents and the interventions that bring about change in the Indian society.

Learning Outcomes: This paper is expected to bring familiarity in a student about Indian society. It will present a comprehensive, integrated and

empirically -based profile of Indian society. It is hoped that the structure and processes operative in the society, the change agents operating in Indian society presented in this course will also enable students to gain a better understanding of their own situation and region.

Subject Code-DSC-H-SOC-04

Paper IV--Sociology of Environment

Environment and society are in constant interaction with each other. It is the environment which sustains life in society and it is the society that is responsible for the preservation and the degradation of the environment. In the recent years environmental challenges have posed a threat to the lives on the planet. Keeping this in view, the present paper tries to create awareness among the students about the major environmental issues and the efforts geared to tackle them.

Objectives: After going through this paper, the student can

- Derive knowledge about the close interaction between society and environment.
- Gain substantial idea about the environmental issues and their repercussions on humanity.
- Accumulate ideas about the ideological currents, issues that drive environment movements.
- Get aware about the global and national efforts to conserve environment.

Learning Outcomes: The very aim of this paper is to disseminate knowledge about the significance of environment for society, to change the practices that can protect and preserve the environment and to make the students participate in the mission to preserve, protect and promote the cause of environment.

SEMESTER-III

Subject Code-DSC-H-SOC-05

Paper-V-Classical Sociological Thinkers

Sociology originated as an intellectual response to the crisis confronting the mid nineteenth century European society. Its development over two centuries has been influenced by a variety of socio-economic and political conditions. It is now established as a multi-paradigmatic academic discipline, with its body of theoretical knowledge enriched and its methodological techniques and procedures systemized. This paper is intended to familiarize the students with the social, political, economic and intellectual contexts in which sociology emerged as a distinctive

discipline. It deals with the contributions of the forerunners of the discipline and with the contributions of the founders who gave a systematic shape to the subject.

Objectives: After going through these two papers, the student can

- Gain an understanding of some of the classical contributions in Sociology, and their contemporary relevance.
- Learn about the methodological shift in the discipline over the years.

Learning Outcomes: This paper is expected to clarify and broaden the student's knowledge about the theoretical and methodological contributions of the classical contributors to the subject and the contemporary relevance of these theories.

Subject Code-DSC-H-SOC-06

Paper VI- Social Change and Development

Change is the law of nature and every society is subject to change. Social change has always been a central concern of Sociological study. Change takes different forms. Change has its pattern which is spelt out by various theories. Change is often propelled by various factors. This paper is designed to provide some ideas to the student about such process, theories and factors.

Objectives: After going through this paper, the student can

- Derive knowledge about the meaning, nature, forms and patterns of change.
- Get an idea about the theories that explain change and their adequacy in explaining so.
- Get an impression about the factors that propel change in the society.

Learning Outcomes: This paper is expected to provide a wholesome idea to the students about the process of social change. They can relate their experience with the theoretical explanations.

Subject Code-DSC-H-SOC-07

Paper VII -Sociology of Gender

The biological basis to the differences between the sexes does not explain the inequalities faced by the sex groups in the society. In the society variations are marked in the roles, responsibilities, rights of and relations between sex groups depending on the social prescriptions relating to sex affiliations. The differences, inequalities and the division of labour between men and women are often simply treated as consequences of

'natural' differences between male and female humans. But, in reality the social norms, institutions, societal expectations play a significant role in deciding and dictating the behaviour of each sex group. This is the fundamental of the study of Gender and Society.

Objectives: After studying this paper, the student can

- Conceptualize what is "Gender" and what is "Sex" and draw a line of distinction between the two.
- Note the difference in gender roles, responsibilities, rights and relations.
- Trace out the evolution and institutionalization of the institution of "Patriarchy".
- Get to know the theories of Feminism that brought women issues and demands to the forefront.
- Assess the initiatives undertaken for gender development with the paradigm shift from time to time.

Learning Outcomes: This paper is expected to generate ideas and sensitivity about gender in a student which he/she can put into practice in daily life. This will lead to change the prevalent biases and gender practices and create a gender neutral social world where both men and women can enjoy their basic rights and cherish to achieve their dreams.

SEMESTER-IV

Subject Code-DSC-II-SOC-08

Paper Title -Rural Sociology

Rural Sociology is a specialized branch of Sociology describing the society of villages and rural areas. As the rural areas or the villages mark the beginning of human civilization, this paper is designed to bring out the distinct features of the rural society with their typologies and typicalities. In the present paper an attempt is made to introduce the student with the development of this branch overtime with its focus on the typicality of Indian villages, their structures, changing features and social problems faced by the rural people.

Objectives: After studying this paper, the student can

- Get an impression about the emergence of the sub discipline Rural Sociology and the forces contributing for its origin.
- Learn about the nature of this branch of knowledge, its subject matter and significance.
- Collect information and knowledge about the mooring of the sub discipline in the Indian context.

- Generate an idea about the typicalities of the rural society and the institutions operating therein and their dynamics.
- Derive ideas about rural social problems of the country.

Learning Outcomes: India thrives in her villages. By going through this paper, the student can have a grip on the grass roots of Indian society. This will enable the student to understand the society in a better manner, to note the heterogeneities in culture, institutions and their functions, changes, the contrasts found between the rural urban societies and the problems faced by the people.

Subject Code-DSC-H-SOC-09

Paper IX-Globalisation & Society

Globalisation is the dominant process of social change in the contemporary world. It has resulted in the sinking of time and space and collapse of borders. It is a new coinage for an old process. It has its own dimensions, distinct features and impacts on society. It has given birth to new role players. All these are the focal points of discussion of this paper.

Objectives: By going through this paper, the student can

- Collect information about the meaning and nature of this process, its historical mooring.
- Amass knowledge about its dimensions and impacts, both positive and negative.
- Get introduced to the agencies that manage the process.

Learning Outcomes: This paper is expected to acquaint the student with an ongoing social process: which can bring tremendous changes in the nations.

Subject Code-DSC-H-SOC-10

Paper X- Marriage, Family & Kinship

The course provides a brief account of the classical approaches to the study of family and kinship. It exposes the students to the distinct aspects of these three interrelated institutions in the Indian context. Finally, it discusses some contemporary issues that pose a challenge to the normative model of these institutions.

Objectives: By going through this paper, the student can

- Understand the three institutions that are the foundations of the society.
- Comprehend the theoretical perspectives on these institutions.
- Get to know the rules governing these institutions.
- Estimate the changes coming over these institutions with the process of social change.

Learning Outcomes: This paper is expected to instill knowledge about the foundational institutions, their governing principles and the continuity and change features of these institutions.

SEMESTER-V

Subject Code-DSC-H-11

Paper XI: Research Methodology

Since the days of August Comte, a debate and a deliberate attempt has been initiated to provide a scientific character to social sciences. In this attempt empirical research has been introduced as an integral part of observing social reality and generalising it objectively without any subjective predisposition. Gradually, research methods have been developed and introduced in social sciences to bring it in par with scientific observations. The essence of this paper lies in introducing the students with these methods of research to ensure objectivity as far as practicable in social research.

Objectives: By going through this paper, the student can

- Get an understanding of the nature of scientific methods, nature of social Phenomena and the way of attaining value neutrality.
- Have a grip over the basic steps involved in social research and the types of social research with their applicability
- Develop an insight into the need and types of research design and the use of sampling method for attending objectivity and scientific study.

Learning Outcomes: This paper is designed and incorporated to acquaint the students with the scientific ways of studying social phenomena. This provides them with a research insight that will enable them to capture the most relevant data in an objective manner. The market demand of this paper will be very high as the students well versed with this paper will be highly demanded in academics, fundamental research, and policy research undertaken both by Government and Non- Government agencies.

Subject Code-DSC-H-SOC-12

Paper XII-Social Movements in India

Movements reflect the voices raised against the prevailing practices of a society. Every society witnesses social movement in some form or the other. Movements bring social change and transformation. It is a collective effort that is driven by particular issues and brings forth changes. The present paper tries to provide a rudimentary impression to the students about the

concept, nature and types of movements with a thrust on the movements witnessed by Indian society.

Objectives:

- To introduce to the students with the concept of social movements and their dynamics.
- To introduce the students to the role of social movements in social transformation.
- To help them understand the various approaches to the study of social movements.

Learning Outcomes: The very aim of this paper is to disseminate knowledge about the concept of social movements and its process and change making role in the society.

SEMESTER-VI

Subject Code-DSC-II-SOC-13

Paper XIII-Population & Society

Demography is both an index and instrument of development and change. India as a country is plagued by population explosion which retards, the economy and blocks social progress. Irrespective of several positive attempts undertaken by the government, India has failed to control its population problem. This paper is designed to provide an idea to the students about population dynamics and its impact on society.

Objectives: After going through this paper, the student can

- Understand the various facets of population studies and the theories that depict pollution change.
- Develop specific idea on Indian population structure, policies adopted and programmes launched in the country to check population.
- Assess the role of various agencies in population control.

Learning Outcomes: The very aim of this paper is to acquaint the students with a perennial problem of the Indian society that is population growth and the measures introduced to control it.

Subject Code-DSC-II-SOC-14

Paper XIV-Social Disorganization & Deviance

No society is fully organized in character. Disorganization is apt to occur from time to time. Disorganization is a manifestation of the deviant behavior found among some individuals. This deviance occurs when the individuals feel that the normative order of the society and its institutions are not need fulfilling in character. This present paper makes an attempt to provide an impression about the scenario of disorganization.

its forms, causes and consequences with the theories explaining the situation.

Objectives: After going through this paper, the student can

- Understand the meaning, causes, consequences and forms of social disorganization.
- Learn about the theories explaining the disorganization situations.
- Comprehend the concept of crime and the existing theories of punishment.

Learning Outcomes: This paper is designed with an expectation to impress upon a student on the concept of deviant behavior leading to social disorganization, forms, theoretical foundations and criminal activities which he encounters in real life situations.

SEMESTER-V

DISCIPLINE SPECIFIC ELECTIVES

DSE SOC-1-Sociology of Health

The course introduces students to the sociology and anthropology of health, illness and medical practice by highlighting the significance of socio-cultural dimensions in the construction of illness and medical knowledge. Individual and group experiences and negotiations of health and illness are explored through case studies and health policies. Theoretical perspectives examine the dynamics of local, regional and global knowledge that shape these constructions.

Objectives: After studying this paper, the student can

- Gain knowledge on the sociology of health and medicine.
- Can get an insight on socio-cultural dimensions in the construction of illness and medical knowledge.
- Can gain understanding on health sector reforms of Government of India.
- Gain knowledge on medical pluralism for treatment of disease.

Learning Outcomes:

Students are expected to know the concept of health from different perspectives. They can also learn about the contemporary trend of Sociology of Health in India. By knowing various health policies and programs in India student can expand the information base and disseminate the same to others.

1. To be able to use the key concepts developed in sociology and anthropology to understand biomedical practices of health and illness

2. To critique biomedicine and have an understanding of medicine as a plurality
3. To analyse the everyday experiences of health and illness as produced through social, economic, political and cultural forces
4. To gain insights on issues of public health in India and arrive at independent analysis.

DSE SOC-II:

Paper Title-Sociology of Education

Course Objectives: After going through this paper, the student can

- Get to know the meaning and theoretical perspectives on sociology of education
- Get familiar with the relationship between education and society.
- Get insights on role of education in Nation building.
- Get an understanding on inequality in education that persists at various levels.
- Gain knowledge on constitutional provisions and various education policies

Learning Outcomes: The students are expected to learn various perspectives on education through the contributions of both Indian and western thinkers. Knowledge on education policies and constitution provisions can prepare the students for the development of their own higher education. Students can develop academic interest by knowing the contribution of education in nation building as well as the educational inequalities which persist in the society.

SEMESTER-VI

DISCIPLINE SPECIFIC ELECTIVES

DSE SOC-III: Paper Title -Urban Sociology

Urbanisation is an important social process that changed the face of human civilization. It was initiated with the process of modernization, transport revolution, coming up of river valley civilizations, establishment of trade links and industrial revolution. Urbanisation has brought both prosperity and problems. It is one of the earnest tasks of Sociology to trace out the evolution of the process, social; problems associated with it and policy planning and measures undertaken to overcome these challenges. This paper Urban Sociology concentrates upon these tasks.

Objectives: After going through this paper, the student can

- Understand the specific traits of urban areas, its historical patterns of growth.

- Develop knowledge about urban social institutions and problems
- Gain insight into urban development plans, programmes and efforts.

Urbanisation is an important aspect of modern society. This course will provide an exposure to key theoretical perspectives for understanding urban phenomena in historical and contemporary contexts. It also reflects on vital concerns of urban living while narrating the subjective experiences of urban communities. With case studies from India and other parts of the world this course will help students understand and relate to the complexities of urban living. The course seeks to evolve critical thinking and develop a policy perspective on the urban.

Learning Outcomes:

1. To appreciate the significance of the city and the process of urbanisation and its consequences across the globe, through cross disciplinary texts and ethnographic studies.
2. To understand the urban in the historical as well as modern contexts - the idea of urbanism and urban space and the intersections in these of institutions, processes and identities. This is to be achieved by exposing students to critical theoretical debates which help them to gain a deeper understanding of city life and urban environment which can also help them understand their own social environment better.
3. To learn about key urban processes such as migration, displacement and urban slums, as well as critical contemporary issues such as resettlement and rehabilitation and also engage in issues of public policy, urban transformation and change. Knowledge of such themes will help students pursue further studies in academic areas such as development and also engage in research on public policy, urban transformation and change.
4. To develop critical thinking and a reflective perspective through exposure to multicultural thought; to enhance disciplinary knowledge, research-related skills and develop a problem-solving competence.

DSE-SOC-IV

Practical: Field Work and Dissertation

Course Objective: This paper is designed

- To provide a basic exposure to the student to the fields and to acquaint him/her with the research process.
- To equip them with the capacity to browse secondary literature from right sources and with a process of reviewing relevant literature.

- To promote in them an ability to capture the right type of data and put them into documentation format.

(Dissertation: 80 marks and Viva-voce: 20 marks)

- Dissertation may be written on any social institution, problem or may be an evaluative study.
- It should be based on empirical study.
- Size of the dissertation should be around 5000 words.
- Dissertation paper will be examined jointly by one Internal and one External Examiner to be appointed by the University. Marks will be awarded jointly by the Internal and External Examiners on the basis of the written Dissertation and Viva-voce.

DSE-SOC-4

Paper Title -Tribes of India

Course Objective: The present paper aims

- To provide a fair stock of knowledge to the students on the tribes and tribal life.
- To enable the students to understand the problems faced by the tribes
- To give impression and knowledge on the tribal development plans, policies and programmes.

Learning outcomes: After going through this paper it is expected that the students will gain fair idea about the Indian tribes, their demography and distribution. They will be sensitized about tribal situations and the challenges faced by them today. Finally, they can get an account of the safeguards created for them through the Constitution, legislations and programmes and the changes noted in the tribal society of the country today.

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 HEAD OF THE DEPARTMENT
HEAD
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 Rayagada Autonomous College, Rayagada

17-03-2021
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DEPARTMENT OF BOTANY
RAYAGADA AUTONOMOUS COLLEGE, RAYAGADA
COURSE OUTCOME

INTRODUCTION:

This curriculum framework for the bachelor-level program in Botany is developed keeping in view of the student centric learning pedagogy, which is entirely outcome-oriented and curiosity-driven. To avoid rote-learning approach and foster imagination, the curriculum is more leaned towards self-discovery of concepts. The curriculum framework focuses on pragmatist approach whereby practical application of theoretical concepts is taught with substantial coverage of practical and field works. The platform aims at equipping the graduates with necessary skills for botany-related careers, careers with general graduate-level aptitude and for higher education in Botany and allied subjects.

Program Learning Outcomes

The student graduating with the Degree B.Sc (Honours) Botany should be able to Acquire,

1. **Core competency:** Students will acquire core competency in the subject Botany, and in allied subject areas.
 - The student will be able to identify major groups of plants and compare the characteristics of lower (e.g. algae and fungi) and higher (angiosperms and gymnosperms) plants.
 - Students will be able to use the evidence based comparative botany approach to explain the evolution of organism and understand the genetic diversity on the earth.
 - The students will be able to explain various plant processes and functions, metabolism, concepts of gene, genome and how organism's function is influenced at the cell, tissue and organ level.
 - Students will be able to demonstrate the experimental techniques and methods of their area of specialization in Botany.
2. **Analytical ability:** The students will be able to demonstrate the knowledge in understanding research and addressing practical problems.
3. **Critical Thinking and problem solving ability:** An increased understanding of fundamental concepts and their applications of scientific principles is expected at the end of this course. Students will become critical thinker and acquire problem solving capabilities.
4. **Ethical and Psychological strengthening:** Students will also strengthen their ethical and moral values and shall be able to deal with psychological weaknesses.
5. **Team Player:** Students will learn team workmanship in order to serve efficiently institutions, industry and society.
6. **Independent Learner:** Apart from the subject specific skills, generic skills, especially in botany, the program outcome would lead to gain knowledge and skills for further higher studies, competitive examinations and employment. Learning outcomes based curriculum would ensure equal academic standards across the country and broader picture of their competencies. The Bachelor program in Botany and Botany honours may be mono-disciplinary or multidisciplinary.

DEPARTMENT OF BOTANY COURSE OUTCOMES

CLASS/ SEMESTER	COURSE/ COURSE CODE/TITLE	COURSE OUTCOME
+3 FIRST YEAR SEMESTER-I	CORE-1 MICROBIOLOGY AND PHYCOLOGY	<ul style="list-style-type: none"> To get knowledge about the microbes and their economic importance of viruses with reference to vaccine production, role in research, Medicine and diagnostics, as causal organisms of plant diseases. To apply the knowledge for economic use of bacteria with reference to their role in agriculture and industry. To get knowledge about different types of algae, their life processes and importance in various fields.
	CORE-2 BIOMOLECULES AND CELL BIOLOGY	<ul style="list-style-type: none"> To get the knowledge about the biomolecules like proteins, enzymes, lipids and carbohydrates structural and functional aspects. Develop understanding on chemical bonding among molecules. To get the knowledge about the overall structural and functional unit of the cell and cell organelles. To get the complete idea about the cell division and cell cycle process.
+3 FIRST YEAR SEMESTER-II	CORE-3 MYCOLOGY AND PHYTOPATHOLOGY	<ul style="list-style-type: none"> To get the knowledge about the detailed account of fungi. Pathology in the control of plant disease. The students will develop an understanding of microbes, fungi and lichens and appreciate their adaptive strategies To get the knowledge to identify the common plant diseases according to geographical locations and devise control measures.
	CORE-4 ARCHEGONIATAE (Bryophytes, Pteridophytes, Gymnosperms)	<ul style="list-style-type: none"> To get the knowledge about critical understanding on morphology, anatomy and reproduction of Bryophytes, Pteridophytes and Gymnosperms. To get the knowledge about plant evolution and their transition to land habitat.

**+3 SECOND YEAR
SEMESTER-III**

CORE-5
ANATOMY OF ANGIOSPERMS

- To get the knowledge about primary structures of plant tissues, plant organs and epidermal outgrowth.
- To get the knowledge about the evolution of concept of organization of shoot and root apex.
- Analyze the composition of different parts of plants and their relationships
- To get the knowledge about the adaptive and protective systems of plants.

CORE-6
ECONOMIC BOTANY

- Develop critical understanding on the evolution of concept of organization of apex new crops/varieties, importance of germplasm diversity, issues related to access and ownership.
- Develop a basic knowledge of taxonomic diversity and important families of useful plants.
- Increase the awareness and appreciation of plants & plant products encountered in everyday life.
- To appreciate the diversity of plants and the plant products in human use

CORE-7
GENETICS

- To create awareness about the natural genetic factors, their causes and effects.
- To get the knowledge about process of DNA replication and protein synthesis.
- Have conceptual understanding of laws of inheritance, genetic basis of loci and alleles and their linkage.
- Students can examine the structure, function and replication of DNA.
- Develop critical understanding of chemical basis of genes and their interactions at population and evolutionary levels.
- Comprehend the effect of chromosomal abnormalities in numerical as well as structural changes leading to genetic disorders.


+3 SECOND YEAR SEMESTER-IV	CORE-8 MOLECULAR BIOLOGY	<ul style="list-style-type: none"> • To get the knowledge about the structures and chemical properties of DNA and RNA through various historic experiments. • To understand the different types of prokaryotes through their grouping abilities and their characteristic. • To evaluate the experiments establishing central dogma and genetic code. • Students gain an understanding of various steps in transcription, protein synthesis and protein modification.
	CORE-9 PLANT ECOLOGY & PHYTOGEOGRAPHY	<ul style="list-style-type: none"> • To understand core concepts of biotic and abiotic. • To get the knowledge about the physical, chemical and biological components of the soils. • To get the knowledge about the phytogeography or phytogeographical division of India. • To evaluate energy sources of ecological system.
	CORE-10 PLANT SYSTEMATICS	<ul style="list-style-type: none"> • To understanding of the students about the diversity of plants, their Description, Identification, Nomenclature and their classification including recent advances in the field. • To evaluate the important herbaria and botanical gardens. • Students can interpret the rules of ICN in botanical nomenclature. • The students develop knowledge about plant nomenclature. • Generalize the characters of the families according to Bentham & Hooker's system of classification

**+3 THIRD YEAR
SEMESTER-V**

CORE-11 REPRODUCTIVE BIOLOGY OF ANGIOSPERMS	<ul style="list-style-type: none"> Students can get the knowledge about the different mode of plant reproduction, pollen and pistil interaction. To know about the polyembryony and apomixis. To understand the process pollination and fertilization.
CORE-12 PLANT PHYSIOLOGY	<ul style="list-style-type: none"> To get the knowledge about the Plant-water relations. To explain the significance of Photosynthesis and respiration. To assess idea about dormancy and germination in plants. Students can understand the chemical properties and deficiency symptoms in plants.
DSE-1 (2017-2020 & 2018-2021) STRESS BIOLOGY	<ul style="list-style-type: none"> Students can develop the understanding of concept of stress, stress factors and resistance mechanisms. To explain different types of stress with examples. To analyze the role of production and scavenging mechanisms.
DSE-1 (2019-2022) ANALYTICAL TECHNIQUES IN PLANTS SCIENCES	<ul style="list-style-type: none"> To develop conceptual understanding of cell wall degradation enzymes and cell fractionation. To understand different types of chromatography techniques and principles of microscopes. To apply suitable strategies in data collections and disseminating research findings. To develop their competence in hypothesis testing and interpretation.
DSE-2 (2017-2020 & 2018-2021) PLANT BREEDING	<ul style="list-style-type: none"> To develop conceptual understanding of plant genetic resources, plant breeding, gene bank and gene pool. To explain monogenic and polygenic inheritance Reflect upon the role of various non-conventional methods used in crop improvement.
DSE-2 (2019-2022) NATURAL RESOURCE MANAGEMENT	<ul style="list-style-type: none"> To understand the concept of different natural resources and their utilization. Critically analyze the sustainable utilization land, water, forest and energy resources. Evaluate the management strategies of different natural resources.

**+3 THIRD YEAR
SEMESTER-VI**

CORE- 13 PLANT METABOLISM	<ul style="list-style-type: none"> To get knowledge about anabolic and catabolic pathways of metabolism, Recognize the importance of Carbon assimilation in photorespiration. To interpret the Biological nitrogen fixation in metabolism.
CORE-14 PLANT BIOTECHNOLOGY	<ul style="list-style-type: none"> To understand the core concepts and fundamentals of plant biotechnology and genetic engineering. To get the knowledge about different types of plant tissue culture. To examine gene cloning and evaluate different methods of gene transfer.
DSE-3 (2017-2020 & 2018-2021) NATURAL RESOURCE MANAGEMENT	<ul style="list-style-type: none"> To understand the concept of different natural resources and their sustainable utilization of land, water, forest and energy resources. To help evaluate the management strategies of different natural resources.
DSE-3 (2019-2022) HORTICULTURE PRACTICES & POST HARVEST TECHNOLOGY	<ul style="list-style-type: none"> To understand the concept of different types of horticultural crops, their conservation and management To get the knowledge about different cultivation practices and disease management To get the knowledge about different Landscaping practices and garden design
DSE-4 (2017-2020 & 2018-2021) BIOSTATISTICS	<ul style="list-style-type: none"> To develop skills in data tabulation, its treatment, analysis, interpretation and graphical representation of data. To get the knowledge about analyze and implications of inferential statistics in biology. To develop their competence in hypothesis testing and interpretation.
DSE-4 (2019-2022) INDUSTRIAL AND ENVIRONMENTAL MICROBIOLOGY	<ul style="list-style-type: none"> To understand the concept and role of microbes in industry and environment. To get the idea about the types of bioreactors and the fermentation process. To get the knowledge about the role of microorganisms in industry and microbes in agriculture.


 12-03-2021
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 HOD BOTANY

Department of Zoology

(UG: From 1st semester to 6th Semester courses)

Learning outcomes of Zoology discipline for students

1. Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms.
2. Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment
3. Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.
4. Understands the complex evolutionary processes and behaviour of animals
5. Correlates the physiological processes of animals and relationship of organ systems
6. Understands about various concepts of genetics and its importance in human health
7. Develops empathy and love towards the animals.

Class	Course	Course Outcome
UG	Core-I: Biology of Non-Chordata-I Protista to Pseudo coelomates	<ol style="list-style-type: none">1. To understand the animal kingdom.2. To gain knowledge about the general characteristics, classification up to classes of phyla from Protozoa to Helminthes.3. To study some special features, organs, life history and pathogenicity of organisms of each phylum (Protozoa to Helminthes).4. To understand taxonomic position, origin and evolutionary relationship of different phyla from Protozoa to Helminthes.
	Core-II: Principles and Ethics of Ecology	<ol style="list-style-type: none">1. To provide foundation to students about the role of physical factors on plants and animals.2. To understand the Population and community ecology.3. To give an introduction regarding the biotic and

		abiotic components of ecosystem, food chain and food web in ecosystem.
	Core-III: Biology of Non-Chordata-II Coelomate Nonchordates	<ol style="list-style-type: none"> 1. To understand the taxonomic position, general characteristics and classification up to classes of Annelids to Echinoderms. 2. To provide knowledge about the body organization, metabolic processes of animals belonging to phyla from Annelida to Echinodermata. 3. To study some special features and organs of animals of each phylum (Annelida to Echinodermata). 4. To understand the origin and evolutionary relationship of different phyla from Annelids to Echinoderms.
	Core-IV: Physiology: Life Sustaining Systems	<ol style="list-style-type: none"> 1. To understand the metabolic activities in mammalian body like digestion, respiration, excretion and circulation. 2. To know about the digestive system and about the enzymes involved in the digestion of carbohydrates, proteins and lipids. 3. To understand the gaseous transport and the structure involved in gaseous transport in mammalian body. 4. To introduce students about the process of urine formation in the kidney and about the blood circulation in mammalian body.
	Core-V: Biology of Chordata	<ol style="list-style-type: none"> 1. To understand what the chordates are. 2. To know different categories of chordates. 4. To understand the general characters of each class of vertebrates. 5. To understand the origin and evolutionary relationship in different classes of vertebrates. 6. To learn some special topics like zoogeography, metamorphosis, biting mechanism of snake, migration of fishes and birds, parental care of amphibians etc.

	<p>Core- VI:</p> <p>Physiology: Controlling and Coordinating System</p>	<ol style="list-style-type: none"> 1. To study about the controlling and co-ordinating systems of the human body. 2. Understanding about neurophysiology and receptors. 3. To gain knowledge on variety of tissues of human body. 4. To introduce the students the mechanism of nerve conduction and muscle contraction. 5. To gain knowledge of endocrinology with classification of hormones, their biosynthesis, receptors, mode of actions, physiological function, feedback controls and related disorders.
	<p>Core-VII:</p> <p>Comparative Anatomy of Vertebrates</p>	<ol style="list-style-type: none"> 1. To study structures of heart, aortic arches, kidney, balancing organ, hearing organ, thyroid, respiratory organs, brain of different animal groups(from protochordates to mammals). 2. It will give a definite idea not only of the structure but also the structural development of that organ and how they become modified according to their need and environment.
	<p>Core-VIII:</p> <p>Biochemistry of Metabolic Processes</p>	<ol style="list-style-type: none"> 1. To understand the importance of Bio-molecules. 2. To gain knowledge of carbohydrate, protein and lipid metabolism. 3. To familiar with various biochemical pathways. 4. To discuss the kinetics and mechanism of action of enzymes.
	<p>Core-IX:</p> <p>Cell Biology</p>	<ol style="list-style-type: none"> 1. To develop deeper understanding of prokaryotic and eukaryotic cells. 2. To explore the structures and components of prokaryotic and eukaryotic cells, especially macromolecules, membranes, and organelles. 3. To understand how these cellular components are used to generate and utilize energy in cells 4. To understand the process of cell division in both somatic and germ cell. 5. Understand the term cell signalling. 6. Aware the students regarding biology of cancer.

	Core-X: Principles of Genetics	<ol style="list-style-type: none"> 1. Students get knowledge about Mendelian genetics, their principles and gene interaction. 2. They learn about chromosomal aberrations and structure of chromosomes. 3. To gain knowledge on linkage, crossing over, mechanism of sex determination and sex-linked inheritance.
	Core- XI: Developmental Biology	<ol style="list-style-type: none"> 1. To introduce the students about early embryonic development (gametogenesis, fertilization, cleavage up to gastrulation process). 2. To aware the students about metamorphosis, regeneration, ageing and teratogenesis. 3. To know the process of stem cell culture and amniocentesis.
	Core-XII: Molecular Biology	<ol style="list-style-type: none"> 1. To acquire knowledge about DNA and RNA structure, replication, transcription, translation, post transcriptional modifications and gene regulation.
	Core-XIII: Immunology	<ol style="list-style-type: none"> 1. Understanding of types of immunity. 2. To gain knowledge of tissues, cells and molecules involved in immune system. 3. To know the structure and functions of antigens, antibodies, complements and other immune components. 4. To provide a brief introduction regarding hypersensitivity and its types.
	Core-XIV: Evolutionary Biology	<ol style="list-style-type: none"> 1. To understand theories of organic evolution, history of life and extinction. 2. To gain knowledge on variation, isolating mechanisms, types of selection (natural, sexual, artificial). 3. To acquaint learners to principles of population genetics (Concept of gene pool, Gene frequencies, Genetic drift, Gene flow, Species concept)
	DSE-I: Animal Behaviour	<ol style="list-style-type: none"> 1. To get knowledge of origin and history of ethology. 2. To learn different types of reflexes, orientation and learning. 3. To know the details of social and reproductive behaviour.

	DSE-II: Animal Biotechnology	<ol style="list-style-type: none"> 1. To acquaint learners to the modern developments and concept of Zoology highlighting their applications aiming for the benefit of human being. 2. Learners would understand recent advances in the subject and their applications for betterment of mankind and that the young minds would be tuned to think out of the box. 3. To explore the procedures of many techniques like blotting techniques, DNA profiling, PCR, DNA microarray. 4. To get knowledge to culture animal cells in artificial media, in vitro culturing of organisms and production of transgenic animals. 5. Use of recombinant DNA technology, genetic manipulations. 6. To gain skills in medical, environmental biotechnology, biopesticides and use of animals as bioreactors.
	DSE-III: Microbiology	<ol style="list-style-type: none"> 1. It will help the students to know about the microbial world. 2. To know about different types of micro-organisms such as bacteria, viruses, protozoans and fungi; their morphology, classification, reproduction and their economic importance. 3. Some aspects of applied microbiology and diseases related to microbiology will also be learnt by the students.
	DSE-IV: Project and Seminar	<ol style="list-style-type: none"> 1. Enrich by early exposure to conducting research. 2. To develop ability for scientific inquiry and critical thinking, ability in the knowledge base and communication.
	GE: Paper-I : Animal Diversity	<ol style="list-style-type: none"> 1. To study different invertebrate and vertebrate animals (from Protozoa to Mammalia), their general characters, some special features, organs, pathogenicity, life history and significance.

		2. Student will be able to understand the morphology, habit, habitat and systematic position of various animals.
	GE: Paper II: Environment and Public Health	<p>1. To educate learners about the issues of environment such as global warming, acid rain, different types of pollution and their effect on public health.</p> <p>2. To gain knowledge of causes, symptoms and control of diseases like Tuberculosis, Cholera, Minamata disease, Asthma and Typhoid to improve personal and public health</p>


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Course Outcomes for Under Graduate Program in Physics

Program objectives for the Under Graduate program in Physics

Students will

- Display an understanding of core knowledge in physics.
- Learn, design and perform experiments in labs to demonstrate the concepts, principles and theories learnt in the theory classes.
- Demonstrate proficiency in the acquisition of data using a variety of laboratory instruments and use the analytical methods required to interpret and analyse the data, obtain the results and draw conclusions as supported by their data.
- Understand that Physics to be the most import branch of science for pursuing interdisciplinary and multidisciplinary higher education and research in interdisciplinary and multidisciplinary areas of Physics.
- Demonstrate written and oral communication skills in communicating physics-related topics.
- Understand the impact of Physics and Science on the society.

Course Outcomes for different courses in the Under Graduate program in Physics

<i>Semester</i>	<i>Course Code</i>	<i>Course Title</i>	<i>Course Outcomes</i>
I	Core-I	Mathematical Physics-I	Students will <ul style="list-style-type: none">i. learn solving First and Second order differential equations using various techniques.ii. learn about different co-ordinate systems, and conversion of differential quantities from one system to anotheriii. Dirac delta function and its properties in various branches of Physicsiv. Learn about vector differentiation and vector integration, and their applicationsv. In laboratory work, the students will learn the fundamentals of C and C++ programming languages, and their applications in solving simple problems like calculating the sum, average etc of a given list of numbers.
	Core-II	Mechanics	Students will

		<ul style="list-style-type: none"> i. deal with problems involving rotational bodies, and learn the concepts of angular momentum, conservation of angular momentum, moment of inertia and its calculation, kinetic energy of rotating objects etc. ii. Grasp understanding of non-inertial systems, laws of physics in rotating co-ordinate system, centrifugal, coriolis force iii. Students will understand concepts regarding elasticity, and its applications. Students gain knowledge in fluid dynamics, they learn the theories regarding surface tension, capillary action, and viscosity etc. iv. Understand the laws of gravitation, apply Kepler's laws to describe motion of planets in elliptical orbits. v. Explain the phenomena of simple harmonic motion and the properties exhibited by such systems. vi. Understand relativistic effects in physics and how they affect mass, length and time, and frequency of light. vii. In laboratory work, students will perform experiments related to mechanics (compound pendulum), rotational dynamics, elastic properties and fluid dynamics.
GE-I	Generic Elective-I (For UG students having honours other than Physics)	<p>The students will have idea about various natural phenomena which are governed by laws of physics. The students will learn concepts and principles in the following topics of Physics</p> <ul style="list-style-type: none"> i. Mechanics and Properties of matter: moment of inertia, gravitation, surface tension, fluid in motion, viscosity ii. Oscillations and Waves: simple harmonic motion, forced vibration and resonance, longitudinal and transverse wave, Lissajous figures iii. Thermal Physics: entropy, reversible and irreversible processes, Carnot theorem, laws of thermodynamics, Blackbody radiation, heat flow, etc. iv. Electricity and Magnetism, and electronics: Gauss law of electrostatics and its applications to various charge distributions, magnetic field and lorentz force, laws of elctromagnetic indduction, LR, RC circuits, RLC circuits, resonance, pn-junction, rectifiers, pnp- and npn-

			<p>transistors, etc.</p> <p>v. In laboratory work the students have to perform simple experiments in physics to verify few laws of physics (from the syllabus), and determine physical quantities like moment of inertia, young's modulus, g by bar pendulum, etc.</p>
II	Core-III	Electricity & Magnetism	<p>After successfully completing this course, students will</p> <ol style="list-style-type: none"> demonstrate Gauss law, Coulomb's law for electric field, and apply it to systems of various charge distributions Apply Gauss's law of electrostatics to solve a variety of problems Understand dielectric, magnetic properties of materials and the phenomena of electromagnetic induction. Apply Kirchhoff's rules to analyze various electrical circuits containing capacitors, resistors and inductors in series and parallel combinations Apply various Network theorems such as Thevenin's theorem, Norton theorem, Superposition theorem to study and analyse different circuits. In laboratory work the students will get opportunity to verify various laws present in their syllabus
	Core-IV	Waves and Optics	<p>The course will enable students to</p> <ol style="list-style-type: none"> apply basic knowledge of theories and principles about the behaviour of light, and its properties as rays. Understand superposition principle to apply the same to explain interference of light through double slits, and various optical arrangements, diffraction of light. Students will also be able to reason experimental optical observations such as Newton's rings. The students will come to know about the resolving power of optical instruments, like grating, telescope etc. Again they will learn about various zone plates. In the laboratory course work the students will gain hands-on experience of using various optical instruments and making finer measurements of wavelength of light using Newton Rings experiment, Fresnel Biprism etc, resolving power of optical equipments.

	GE-II	Generic Elective-II (For UG students having honours other than Physics)	<p>The students will have idea about various natural phenomena which are governed by laws of physics. The students will learn concepts and principles in the following topics of Physics</p> <ol style="list-style-type: none"> Optics: light and its properties, different aberrations of optical systems, interference, diffraction, electromagnetic nature of light, Brewster's law, Malus law Atomic Physics: Inadequacy of classical physics, Compton effect, dual nature of radiation, wave-particle duality, Davisson-Germer experiment, Bohr's theory of hydrogen atom and its limitation Quantum Mechanics: Heisenberg's uncertainty principle, Schrodinger equation in one, two and three dimensions, Ehrenfest's theorem, etc. Nuclear Physics: Properties of nucleus, nuclear force and its characteristics, radioactivity, half life, nuclear fission and fusion, accelerators Special theory of Relativity: postulates, Michelson Morley experiment, Lorentz transformation equation and its application to length contraction, time dilation, relativistic mass, mass energy relation. The students are expected to perform some experiments in physics like determination of refractive index using a prism, determining the wavelength of light using Newton's ring and using diffraction grating, etc.
III	Core-V	Mathematical Physics-II	<p>The course will enable the students to</p> <ol style="list-style-type: none"> learn about periodic functions, Fourier series of periodic functions and their applications in various physical problems such as vibrating strings etc. Learn about special functions, such as the Hermite polynomial, the Legendre polynomial Bessel's functions, Laguerre polynomial and their applications in various problems in quantum mechanics (to be read in fifth semester). The students will learn about Beta, Gamma functions and the relation connecting them. They will understand solving integrals using these functions. Gain understanding of method of solving partial differential equations, with their important implications in Physics.

			<p>v. In the laboratory work the students will learn about the SciLab software, and they will use this software for solving physical problems involving differential equations.</p>
	Core-VI	Thermal Physics	<p>The course will provide the students with</p> <ol style="list-style-type: none"> the basic concepts and the laws of thermodynamics, various thermodynamic quantities and their physical interpretation. The students will learn about First Order and Second order thermodynamic phase transitions, and explore various physical examples of such phase transitions. Learn about Maxwell's thermodynamics relations. Understand the basic concepts of kinetic theory of gases, equipartition theorem, Maxwell-Boltzman distribution law, Brownian motion, real gas, Van der Waal equation of state, thermal conductivity, diffusion etc. In the Laboratory work, the students are expected to do some basic experiments in thermal physics like, determining the mechanical equivalent of heat, determination of coefficient of thermal conductivity, determination of specific heats of solid and liquid.
	Core-VII	Analog Systems and Applications	<p>Student will</p> <ol style="list-style-type: none"> learn about p-type and n-type semiconductors, and the formation and working of pn-junction. Understand how pn-junction can work as a rectifier and voltage regulator. Learn about pnp- and npn-transistors and their configurations, their biasing, and their 2-port network using h-parameter equivalent circuits. Different classes of amplifiers, push-pull amplifiers. Students will learn about various coupled amplifiers and their frequency response, and feedbacks in amplifier circuits. Learn about operational amplifiers and their applications to construct adder, subtractor, differentiator, integrator, log amplifiers etc. In laboratory work the students will perform experiments such as finding I-V characteristics of Zener diode, to design and study OP/ Amp-IC (741/351) as inverting, non-inverting amplifiers, and as

			integrator and differentiator etc.
IV	Core-VIII	Mathematical Physics-III	<p>The students will</p> <ol style="list-style-type: none"> Learn about the complex numbers and their properties, functions of complex numbers and their properties such as analyticity, poles and residues. They are expected to learn about residue theorems and evaluate various definite integrals. The students will learn about integral transform, Fourier transform of various functions, Laplace transforms and their properties. They will learn to apply all of these tools to solve various problems in physical sciences. In laboratory work the students will solve first and second order differential equation with appropriate boundary conditions using SciLab based software packages.
	Core-IX	Elements of Modern Physics	<p>On completion of the course the students will</p> <ol style="list-style-type: none"> learn about the inadequacy of classical mechanics, and understand the development of quantum mechanics They will learn about various atomic models. Understand the central concepts of quantum mechanics: wave functions, momentum and energy operators, uncertainty principle, and experimental observations supporting uncertainty principle. Understand the properties of nuclei, such as their mass, density etc. They are supposed to understand various nuclear models and the nature of force binding the nucleons together. The students will understand radioactivity and various concepts related to the same. They will learn about life time, fusion and fission, nuclear reactor. In laboratory work the students will get opportunity to do few experiments on modern physics like tunnel effect in tunnel diode using I-V characteristics, estimating wavelength of laser using diffraction of single/double slits, Planck's constant using LEDs, finding out e/m ratio for electron etc.
	Core-X	Digital Systems and Applications	<p>Successful completion of the course will enable the students to</p> <ol style="list-style-type: none"> learn about analog systems and digital systems with their differences,

			<p>fundamental logic gates, combinational, and sequential, various number systems viz. Octal, Decimal, Binary, Hexadecimal etc.</p> <p>ii. Basic working of Cathode Ray Oscilloscope and its applications to study the wave form of various signals.</p> <p>iii. The students will learn about arithmetic circuits e.g. circuits for binary addition, binary subtraction, Half and Full Adders, etc., again about IC 555 timer.</p> <p>iv. They will again learn about various shift registers and different types of counters.</p> <p>v. In laboratory work the students will perform simple experiment to verify and design AND, OR, NOT, XOR gates using NAND gates. They will again perform experiments on Half/Full Adders-Subtractors, multivibrators etc.</p>
V	Core-XI	Quantum Mechanics and Applications	<p>On Completion of this Course, students will be able to:</p> <p>i. Understand the postulates of quantum mechanics and to understand its importance in explaining various quantum mechanical phenomena in microscopic scales in Physics.</p> <p>ii. Develop quantitative problem solving skills in all the topics that will be covered in this course.</p> <p>iii. In laboratory work the students will use any of the C/C++/SciLab programming languages to solve various quantum mechanical problems such as solving for s-wave Schrödinger equation for the ground state and the first excited state of the hydrogen atom, s-wave radial Schrödinger equation for the vibrations of hydrogen molecule, etc.</p>
	Core-XII	Solid State Physics	<p>i. Understand the basics of crystallography, X-ray Diffraction.</p> <p>ii. Understand the basics of lattice vibration in solids, and understand the theories regarding specific heat of solids.</p> <p>iii. Grasp the understanding of magnetic and dielectric properties of materials, different types of magnetic materials, idea about soft and hard ferromagnets used in various applications</p> <p>iv. Will understand the basic concepts of laser, and their working.</p> <p>v. Understanding the basic concepts of band</p>


		<p>theory, different conductivity measurement techniques.</p> <p>vi. Will have basic idea about superconductivity and the properties of such materials.</p> <p>vii. Students will gain problem solving skills in most part of this course.</p> <p>viii. In laboratory work the students are expected to perform basic experiments in solid state physics. They have to do experiments like measuring the susceptibility of paramagnetic solutions, determining Hall coefficient and thereby finding the concentration of charge carriers, finding the bandgap of a semiconductor by four-probe method, studying the B-H curve of Fe using solenoid and determining the energy loss from Hysteresis loop etc.</p>
DSE-I	Classical Dynamics	<p>The students will</p> <ol style="list-style-type: none"> Revise the knowledge of the Newtonian, the Lagrangian and the Hamiltonian formulations of classical mechanics and their applications in appropriate physical problems such as Atwood's machine, Dumbbell, linear harmonic oscillator etc. Learn about variational principle, and about the theory of small oscillations. Apply the Euler-Langranges equation, to a variety of problems which includes Brachistochrone problem, minimum surface of revolution etc. Recapitulate and learn the special theory of relativity- postulates of the special theory of relativity, Lorentz transformations on space-time and other four vectors, four-vector notations, space-time invariant length, length contraction, time dilation, mass-energy relation, Doppler effect, light cone and its significance, problems involving energy-momentum conservations.
DSE-II	Nuclear and Particle Physics	<p>Students will learn about</p> <ol style="list-style-type: none"> the general properties of nuclei (quantisation of mass, radius, density, binding energy, etc.), and the various radioactive decays (alpha, beta, and gamma- decay). The various nuclear models to describe the structure of nucleus

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		<p>iii. some basic aspects of interaction of interaction of nuclear radiation with matter- interaction of gamma ray by photoelectric effect, Compton scattering and pair production, energy loss due to ionization etc. Thus helping to understand the detection of such nuclear radiation.</p> <p>iv. Various types of particles and their families. Students will also learn about the symmetries and conservation laws relating to elementary particles.</p>
Core-XIII	Electromagnetic Theory	<p>On completing this course the student will be able to</p> <ol style="list-style-type: none"> achieve an understanding of the Maxwell's equations, role of displacement current, gauge transformations, scalar and vector potentials, Coulomb and Lorentz gauge, boundary conditions at the interface between different media Analyse the phenomena of wave propagation in the unbounded, bounded, vacuum, dielectric, guided and unguided media. Understand the various kinds of polarization of electromagnetic wave Understand the concepts of optical rotation, theories of optical rotation and their experimental rotation, calculation of angle of rotation and specific rotation etc. Learn about various retardation plates like Quarter Wave Plate and Half Wave plate, etc. In the laboratory work the student is supposed to perform simple experiments in electromagnetic theory such as determining the specific rotation of sugar solution using Polarimeter, analysing elliptically polarised light, determining refractive index of liquid by internal reflection, verifying Stefan's radiation law, studying polarisation by reflection, etc.
Core-XIV	Statistical Mechanics	<p>At the end of this course a student can</p> <ol style="list-style-type: none"> understand the concepts of micro/macro-state, ensemble, phase space, thermodynamic probability and partition function. Understand the joint behaviour of a large number of particles with their distinguishability and indistinguishability nature which leads to three different

			<p>distribution laws, e.g. Maxwell-Boltzmann distribution, Bose-Einstein distribution and Fermi-Dirac distribution.</p> <p>iii. Learn to apply classical statistical mechanics to derive the law of equipartition of energy and specific heat, understand Gibbs paradox, etc.</p> <p>iv. Again understand Blackbody radiation, and various laws (Wiens Displacement law, Rayleigh jeans Law, Stefan Boltzmann law, etc.) relating the same. They will also learn to deduce these laws from the theory of Blackbody radiation.</p> <p>v. In laboratory work students will use any of the programming languages of their choice (C, C++, SciLab) to study Planck's Black body radiation law and compare with the Wien's Law and Rayleigh Jeans law in appropriate temperature regions. They have to plot specific heat of solids from Dulong-Petit law, Einstein distribution function, Debye distribution function at different temperature ranges. Also they have to plot the three distribution functions (M-B, F-D & B-E).</p>
DSE-III	Nano Materials and Applications		<p>At the end of this course the student is expected to possess the concept of the following</p> <p>i. nanoscale systems and their implications in modifying the properties of materials at nanoscale.</p> <p>ii. Quantum confinement effect of particles at nanoscale. 3D, 2D, 1D and 0D nanostructures with examples.</p> <p>iii. Different synthesis techniques including top down and bottom up approach, photo lithography techniques, vacuum deposition, physical vapour deposition, etc.</p> <p>iv. Characterization of nanoscale materials using X-ray diffraction, electron microscopy, Atomic Force Microscopy, Scanning Tunnelling Microscopy etc.</p> <p>v. Applications of nano-scale materials such as in quantum dots, nanowires, thin films, making devices namely MEMS, NEMS, etc.</p>
DSE-IV	Project or Instrumentation	Basic	<p>Students will have to do either a project work under the supervision of a teacher from the department or s/he can opt to take the course <i>Basic Instrumentation</i>.</p>

			<p>In case the student chose to opt for the course mentioned above s/he has to learn about</p> <ol style="list-style-type: none"> the basics of measurements like sensitivity, accuracy, errors, resolution range, etc. Various types of multimeters, including AC millivoltmeter. Thorough understanding of Cathode Ray Oscilloscope and its working principle, and construction. Its use in a wide range of applications. Different signal generators, function generators, etc. Digital instruments like digital multimeter and its comparison with their corresponding analog counterpart.
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 26/3/2024
HOD Physics
 (in charge)


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RAYAGADA AUTONOMOUS COLLEGE RAYAGADA

LEARNING OUTCOMES OF UG (MATHEMATICS)

SEMESTER	SUBJECT	LEARNING OUTCOMES
I	CORE PAPER-I CALCULUS	After completing the course, students are expected to be able to use Leibnitz's rule to evaluate derivatives of higher order, able to study the geometry of various types of functions, evaluate the area, volume using the techniques of integrations, able to identify the difference between scalar and vector, acquired knowledge on some the basic properties of vector functions.
	CORE PAPER-II DISCRETE MATHEMATICS	The acquired knowledge will help students in simple mathematical modeling. They can study advance courses in mathematical modeling, computer science, statistics, physics, chemistry etc.
	Generic Elective Paper I CALCULUS AND DIFFERENTIAL EQUATIONS	After completing the course, students are expected to be able to apply knowledge of calculus and differential equations to solve mathematical problems which arise in all branches of science . The main emphasis of this course is to equip the student with necessary analytic and technical skills to handle problems of a mathematical nature as well as practical problems using calculus and differential equation.

II	CORE PAPER-III REAL ANALYSIS	This course will enable the students to: i)Assimilate the notions of limit of a sequence and convergence of a series of real numbers. ii)Calculate the limit and examine the continuity of a function at a point. iii)Understand the consequences of various mean value theorems for differentiable functions.
	CORE PAPER-IV DIFFERENTIAL EQUATIONS	The course will enable the students to: i)Understand the genesis of ordinary differential equations. ii)Learn various techniques of getting exact solutions of solvable first order differential equations and linear differential equations of higher order
	Generic Elective Paper II ALGEBRA	The acquired knowledge will help students to study further courses in mathematics like, group theory, ring theory and field theory and linear algebra. It has applications not only in higher mathematics but also in other science subjects like computer science, statistics, physics, chemistry etc.
III	CORE PAPER-V THEORY OF REAL FUNCTIONS	On the completion of the course, students will have working knowledge on the concepts and theorems of the elementary calculus of functions of one real variable. They will work out problems involving derivatives of function and their applications.They can use derivatives to analyze and sketch the graph of a function of one variable, can also obtain absolute value and relative extrema of functions. This knowledge is basic and

		students can take all other analysis courses after learning this course.
	CORE PAPER-VI GROUP THEORY-I	<p>The course will enable the students to:</p> <ol style="list-style-type: none"> i) Recognize the mathematical objects called groups. ii) Link the fundamental concepts of groups and symmetries of geometrical objects. iii) Explain the significance of the notions of cosets, normal subgroups, and factor groups. iv) Analyze consequences of Lagrange's theorem.
	CORE PAPER-VII PARTIAL DIFFERENTIAL EQUATIONS AND SYSTEM OF ODEs	<p>After completing this course, a student will be able to take more courses on wave equation, heat equation, diffusion equation, gas dynamics, non linear evolution equations etc. All these courses are important in engineering and industrial applications for solving boundary value problem.</p>

SEMESTER	SUBJECT	COURSE LEARNING OUTCOMES
iv	CORE VIII(NUMERICAL METHODS AND SCIENTIFIC COMPUTING)	<ul style="list-style-type: none"> i) Obtain numerical solutions of algebraic and transcendental equations. ii) Find numerical solutions of system of linear equations and check the accuracy of the solutions. iii) Learn about various interpolating and extrapolating methods. iv) Solve initial and boundary value problems in differential equations using numerical methods. v) Apply various numerical methods in real life problems.
	CORE IX(TOPOLOGY OF METRIC SPACES)	<ul style="list-style-type: none"> i) Learn basic facts about the cardinality of a set. ii) Understand several standard concepts of metric spaces and their properties like openness, closedness, completeness, Bolzano-Weierstrass property, compactness, and connectedness. iii) Identify the continuity of a function defined on metric spaces and homeomorphisms.
	CORE X (RING THEORY)	<ul style="list-style-type: none"> i) Understand the basic concepts of group actions and their applications. ii) Recognize and use the Sylow theorems to characterize certain finite groups. iii) Know the fundamental concepts in ring theory such as the concepts of ideals, quotient rings, integral domains, and fields. iv) Learn in detail about polynomial rings, fundamental properties of finite field extensions, and classification of finite fields.

	GE(III)-ALGEBRA)	<p>i) Understand the importance of roots of real and complex polynomials and learn various methods of obtaining roots.</p> <p>ii) Familiarize with relations, equivalence relations and partitions.</p> <p>iii) Employ De Moivre's theorem in a number of applications to solve numerical problems.</p> <p>iv) Recognize consistent and inconsistent systems of linear equations by the row echelon form of the augmented matrix, using rank.</p> <p>v) Find eigenvalues and corresponding eigenvectors for a square matrix.</p> <p>vi) Explain the properties of three dimensional shapes.</p>
	SEC-II(QUANTITATIVE AND LOGIC THINKING)	<p>i) Communicate effectively: All general education programs include a component for writing; many also include a component for oral communication or presentation</p> <p>ii) Evaluate arguments in a logical fashion: Competence in analysis and logical argument are explicit learning goals for most general education programs, although these skills go by a variety of names (e.g., critical thinking, analysis, logical thinking, etc.)</p> <p>iii) Employ the methods of inquiry characteristic of natural sciences, social sciences, and the arts and humanities: The tools for solving problems vary across disciplines; general education introduces students to methods of inquiry in several fields of study and thereby prepares students to integrate information from different</p>

		<p>disciplines.</p> <p>iv) Acquire an understanding of our global and diverse culture and society. Engage in our democratic society: One of the overarching goals of general education is to prepare students to be active and informed citizens, the development of a disposition to participate in and contribute to our dem</p>
V	CORE XI(MULTIVARIATE CALCULUS)	<p>i) Learn conceptual variations while advancing from one variable to several variables in calculus.</p> <p>ii) Apply multivariable calculus in optimization problems.</p> <p>iii) Inter-relationship amongst the line integral, double and triple integral formulations.</p> <p>iv) Applications of multivariable calculus tools in physics, economics, optimization, and understanding the architecture of curves and surfaces in plane and space etc.</p> <p>v) Realize importance of Green, Gauss and Stokes' theorems in other branches of mathematics.</p>
	CORE XII(LINEAR ALGEBRA)	<p>i) Understand the concepts of vector spaces, subspaces, bases, dimension and their properties.</p> <p>ii) Relate matrices and linear transformations, compute eigen values and eigen vectors of linear transformations.</p> <p>iii) Learn properties of inner product spaces and determine orthogonality in inner product spaces.</p> <p>iv) Realise importance of adjoint of a linear transformation and its canonical form.</p>
	DSE I(LINEAR	<p>i) Analyze and solve linear programming models of real life</p>

	PROGRAMMING)	<p>situations.</p> <p>ii) Provide graphical solutions of linear programming problems with two variables, and illustrate the concept of convex set and extreme points.</p> <p>iii) Understand the theory of the simplex method.</p> <p>iv) Know about the relationships between the primal and dual problems, and to understand sensitivity analysis.</p> <p>v) Learn about the applications to transportation, assignment and two-person zero-sum game problems.</p>
	DSEII(PROBABILITY AND STATISTICS)	<p>i) Understand distributions in the study of the joint behaviour of two random variables.</p> <p>ii) Establish a formulation helping to predict one variable in terms of the other that is, correlation and linear regression.</p> <p>iii) Understand central limit theorem, which establish the remarkable fact that the empirical frequencies of so many natural populations, exhibit a bell shaped curve.</p>
VI	CORE XIII(COMPLEX ANALYSIS)	<p>i) Visualize complex numbers as points of R^2 and stereographic projection of complex plane on the Riemann sphere.</p> <p>ii) Understand the significance of differentiability and analyticity of complex functions leading to the Cauchy-Riemann equations.</p> <p>iii) Learn the role of Cauchy-Goursat theorem and Cauchy integral formula in evaluation of contour integrals.</p> <p>iv) Apply Liouville's theorem in fundamental theorem of algebra.</p> <p>v) Understand the convergence,</p>

		<p>term by term integration and differentiation of a power series.</p> <p>vi) Learn Taylor and Laurent series expansions of analytic functions, classify the nature of singularity, poles and residues and application of Cauchy Residue theorem.</p>
	CORE XIV(GROUP THEORY-II)	<p>i) Recognize the mathematical objects called groups.</p> <p>ii) Link the fundamental concepts of groups and symmetries of geometrical objects.</p> <p>iii) Explain the significance of the notions of cosets, normal subgroups, and factor groups.</p> <p>iv) Analyze consequences of Lagrange's theorem.</p> <p>v) Learn about structure preserving maps between groups and their consequences.</p>
	DSE-III(DIFFERENTIAL GEOMETRY)	<p>i) Explain the basic concepts of tensors.</p> <p>ii) Understand role of tensors in differential geometry.</p> <p>iii) Learn various properties of curves including Frenet-Serret formulae and their applications.</p> <p>iv) Know the interpretation of the curvature tensor, Geodesic curvature, Gauss and Weingarten formulae.</p> <p>v) Understand the role of Gauss's TheoremaEgregium and its consequences.</p> <p>vi) Apply problem-solving with differential geometry to diverse situations in physics, engineering and in other mathematical contexts.</p>
	DSE-IV(NUMBER THEORY)	<p>i) Learn about some important results in the theory of numbers including the prime number theorem, Chinese remainder theorem, Wilson's</p>

		<p>theorem and their consequences.</p> <p>ii) Learn about number theoretic functions, modular arithmetic and their applications.</p> <p>iii) Familiarise with modular arithmetic and find primitive roots of prime and composite numbers.</p> <p>iv) Know about open problems in number theory, namely, the Goldbach conjecture and twin-prime conjecture.</p> <p>v) Apply public crypto systems, in particular, RSA.</p>
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 17-03-21
 Head of Department of Mathematics


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 PRINCIPAL
 Rayagada Aro College
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Department of Chemistry (FOR +3 COURSE)

□□□ To infuse in the learner a spirit of inquiry into the fundamental aspects of the various core areas of Chemistry.

- 2) To make the learner proficient in analysing the various observations and chemical phenomena presented to him during the course.
- 3) To make the learner capable of solving problems in the various units of this course
- 4) To give the learner an opportunity to get hands on experience of the various concepts and processes in the various branches of chemistry
- 5) To impart various skills of handling chemicals, reagents, apparatus, instruments and the care and safety aspects involved in such handling
- 6) To make the learner capable of analysing and interpreting results of the experiments he conducts or performs

REGULATIONS

1. Preamble and objectives of the Course :

In the first two semesters of the six semester graduation program of B. Sc.(Chemistry) the learner was introduced to some basic aspects in the various core branches of chemistry like Physical Chemistry, Organic chemistry and Inorganic chemistry. Concepts about the structure of atom, distribution of electrons, Thermodynamics, Formation of organic compounds and basic ideas in reactivity of molecules in general and organic compounds in particular were introduced to the learner. He was made inquisitive about why and how should atoms combine to give molecules or ions. The non-orbital approach to appreciating the shapes of polyatomic species in general and molecules in particular.

The story of chemistry is taken further in the coming two semesters of the second year of the B. Sc. (Chemistry) Program. However it is also realised that some students opting for the course on Chemistry may not continue with the subject subsequently as such the syllabus is designed to retain the interest of the serious learner of chemistry as well as be helpful to non-chemistry learners. With such students who would want to pursue other branches of science but would want to acquire a basic appreciation and experience of chemistry a separate paper (Paper-III) is designed. This paper along with the laboratory session unit that goes with it deals with the basics of chemical analysis, separating components from a given sample, basic concepts like pH, experimental techniques like Titrimetry, Gravimetry, using instruments to carry out analysis, the various techniques like chromatography, electrophoresis, Instrumentation in general is felt to be of interest to learners of various branches like physics, botany, zoology, and microbiology.

The major objectives of B.Sc. Chemistry course are

- To infuse in the learner a spirit of inquiry into the fundamental aspects of the various core areas of Chemistry.
- To make the learner proficient in analysing the various observations and chemical phenomena presented to him during the course.
- To make the learner capable of solving problems in the various units of this course
- To give the learner an opportunity to get hands on experience of the various concepts and processes in the various branches of chemistry

- To make the learner capable of analysing and interpreting results of the experiments he conducts or performs.
- To make the learner capable of acquiring or pursuing a source of livelihood like jobs in chemical industry
- To arouse the interest to pursue higher levels of learning in chemistry.

Department of Chemistry (U.G.)

Class	Course/Course Code/Title	Course Objective	Course Outcome
F.Y.B.Sc IS	Chemistry CORE-1	Introduction to some basic aspects in the various core branches of chemistry like Physical Chemistry, Organic chemistry and Inorganic chemistry.	Knowledge of basic Aspects in Physical, Inorganic and Organic Chemistry.
	CORE-2	Introduction to the concepts about the structure of atom, distribution of electrons, Thermodynamics, Formation of organic compounds	Knowledge of various concepts about structure of Atom, Thermodynamics
2S	Chemistry CORE-3	Introduction to basic ideas in reactivity of molecules in general and organic compounds in particular.	Knowledge of basic ideas in reactivity of organic compounds
	CORE-4	Concept about why and how should atoms combine to give molecules or ions. The non-orbital approach to appreciating the shapes of polyatomic species in general and molecules in particular	Knowledge of basic concept about why and how atoms combine to give molecules and non-orbital approach To shapes of polyatomic molecules.

Class	Course/Course Code/Title	Course Objective	Course Outcome
S.Y.B.Sc. 3S	Chemistry – CORE-5,6,7	Introduction to some basic aspects in the various core branches of chemistry like Physical Chemistry, Organic chemistry and Inorganic chemistry. Introduction to the concepts about the structure of atom,	Knowledge of basic Aspects in Physical, Inorganic and Organic Chemistry. Knowledge of various concepts about structure of

	Chemistry –	Introduction to basic ideas in reactivity of molecules in general and organic compounds in particular. Concept about why and how should atoms combine to give molecules or ions. The non-orbital approach to appreciating the shapes of polyatomic species in general and molecules in particular	Knowledge of basic ideas in reactivity of organic compounds Knowledge of basic concept about why and how atoms combine to give molecules and non-orbital approach To shapes of polyatomic molecules.
4S	CHEMISTRY CORE-8,9,10	Introduction to basics of chemical analysis, separating components from a given sample, basic concepts like pH, experimental techniques like Titrimetry, Gravimetry, using instruments to carry out analysis, the various techniques like chromatography, electrophoresis.	Knowledge of basic ideas of chemical analysis. Knowledge of basic concepts like titrimetry, gravimetry. Knowledge of using instruments to carry out analysis, the various techniques like chromatography, electrophoresis.

Class	Course/Course Code/Title	Course Objective	Course Outcome
T.Y.B.Sc.			
5S	Chemistry – CORE-11,12	Introduction to the concepts about Thermodynamics, kinetics, Surface chemistry, nuclear chemistry, spectroscopy Electrochemistry. Introduction to the concepts of quantum chemistry, polymer chemistry	Knowledge of basic Aspects in Physical chemistry. Knowledge of solving problems in the various units of this course Knowledge of various concepts about structure of Atom, Thermodynamics
		Introduction to the theories of metal-Ligand bond, metal-complexes, organometallic chemistry, metallurgy. Introduction to the bioinorganic Chemistry, solid state chemistry, Molecular symmetry.	Knowledge of molecular orbital theory. Knowledge of basic concept about inorganic preparation. Knowledge of basic concept of metal-complexes

5S		Introduction to the comparative study of group 16 & 17, superconductivity.	
		Introduction to the concepts of mechanism of chemical reaction. Stereochemistry: synthesis of organic compounds, spectroscopy, IUPAC nomenclature. Introduction to the concepts of natural products	Knowledge of basic ideas of synthesis of organic compounds. Knowledge of basic concepts like nomenclature. Knowledge of carry out analysis, the various techniques like chromatography.
	DSE-I, II	Introduction to the different types of drugs and dyes. Introduction to the nanoparticles in medicinal chemistry. Introduction to the health and environmental hazards of synthetic dyes and their remedial processes. Inorganic materials of industrial importance such as fertilizers, alloys, paints, etc. Polymer chemistry such as PVC, Nylon, Terlylene. Knowledge of polymer chemistry.	Knowledge of preparation of drugs and dyes. Knowledge of basic concept about why and how atoms combine to give molecules and non-orbital approach To shapes of polyatomic molecules.

Class	Course/Course Code/Title	Course Objective	Course Outcome
T.Y.B.Sc.	Chemistry – CORE 13, 14	Introduction to quality concepts and chemical calculations Introduction to the classical methods of analysis. Introduction to the methods of separation.	Knowledge of basic Aspects in chemical calculations and quality . Knowledge of various methods of analysis and methods of separation. Knowledge of methods of analysis of cosmetics.

6S		Introduction to the analysis of food and cosmetics.	
6S	DSE-III,IV (Project)	Industrial Chemical and Environment Various types of industrial gases, Environmental pollution. Green Chemistry-green synthesis of various compounds. Project on different topics	Different type of chemicals and their uses. Knowledge on clean and pollution free environment. Knowledge on chemical use in day to day life

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Principal
Rayagada (Auto.) College
Rayagada

[Signature]
19-2-21
HOD of Chemistry

Department of Information Technology

(UG: From 1st semester to 6th Semester courses)

Scope of Information Technology:

In the recent years, the challenges before the educational institutes are manifold. The institutions will have to cope with the fast changes taking place in technology simultaneously, training more students with adequate information with the available financial support for expansion and excellence.

To meet these challenges, the college launched a 3 year B.Sc. course in Information Technology to cater to the latest emerging trend among the present generation. The course was duly approved by Higher Education, Odisha and affiliated by Berhampur University, Odisha from the academic session 2018-2019. The college has a separate and well equipped laboratory to strengthen the basic needs of the students of Information Technology.

Strands attached to IT Courses:

The purpose of Information Technology courses is to equip students with theoretical knowledge as well as the skill sets that meet the requirements of the IT companies. Whether it is the designing, development or testing of software, all the things are a part of the IT courses. The students planning to pursue B.Sc. in IT must realize the fact that this course includes the core concepts of different programming languages like C, C++, java programming etc. , and database management systems, information security, analysis of the algorithm, computer networking, E-commerce, cloud computing, software engineering and many other things related to operating systems.

Job Outcomes for the Students of Information Technology:

Propelled by the challenges of employment, it becomes inevitable for the students to opt for a stream which unfolds myriad career opportunities. Information Technology is one such field that paves way for a shining future. Information Technology additionally helps in

expanding one's ability and identity. Anyone having qualities like good communication skills, curiosity to come up with new ideas and passion to improve their knowledge in the IT industry can expect the best things in their career.

The most alluring part of this field is that there is no shortage of job options at both entry-level and expert level, as the IT sector is expanding by a quantum fold. After completing their B.Sc. in IT, students can seek jobs at almost all the major Multinational Corporations (MNCs) like IBM, Microsoft, Cisco, etc.

Program Outcomes

The Program Outcomes of UG in Information Technology are:

1. An ability to apply fundamental knowledge of computing, mathematics, science and engineering appropriate to the discipline.
2. An ability to analyze a problem, identify and formulate the computing requirements appropriate to its solution.
3. An ability to design, implement, and evaluate a computer-based system, process, component, or program for various applications like public health, environmental safety, human resource management, economical sustainability, cross-cultural and societal needs.
4. An ability to formulate models, design, and conduct experiments, as well as to analyse and interpret data.
5. An ability to use current techniques, skills, and modern tools necessary for computing practice.
6. An ability to analyze the local and global impact of computing on individuals, organization, and society.
7. Knowledge of emerging technologies and current trends.
8. An understanding of professional, ethical, legal, security and social issues and responsibility.
9. An ability to function effectively individually and on teams, including diverse and multidisciplinary, to accomplish a common goal.

10. Development of emphatic written and verbal communication skills.
11. Continuous professional development through long term learning.
12. An understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects.

Programme Specific Outcomes for B.Sc. Information Technology (Hons.)

CORE-1(Programming Fundamentals using C)	<p>Course Objectives:</p> <ul style="list-style-type: none"> • To make the student learn a programming language. • To learn problem solving techniques. • To teach the student to write programs in C and to solve the problems. <p>Course Outcomes: After Completion of this course the student would be able to</p> <ul style="list-style-type: none"> • Read, understand and trace the execution of programs written in C language. • Write the C code for a given algorithm. • Implement Programs with pointers and arrays, perform pointer arithmetic, and use the pre-processor. • Write programs that perform operations using derived data types.
CORE-2(Computer System Architecture)	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. To understand the design of the various functional units and components of computers. 2. To identify the elements of modern instructions sets and their impact on processor design. 3. To explain the function of each element of a memory hierarchy 4. To identify and compare different methods for computer I/O. <p>Course Outcomes:</p> <ol style="list-style-type: none"> 1. Describe the fundamental organization of a computer system. 2. Explain the functional units of a processor. 3. Explain addressing modes, instruction formats and program control statements. 4. Distinguish the organization of various parts of a system memory hierarchy. 5. Describe basic concept of parallel computing. 6. Describe fundamentals concepts of pipeline and vector processing.
CORE-3(Data Structures)	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. To introduce the fundamental concept of data structures and to emphasize the importance of data

	<p>structures in developing and implementing efficient algorithms.</p> <ol style="list-style-type: none"> 2. In addition, another objective of the course is to develop effective software engineering practice, emphasizing such principles as decomposition, Procedural abstraction and software reuse. <p>Course Outcomes: After completing this course satisfactorily, a student will be able to:</p> <ol style="list-style-type: none"> 1. Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms. 2. Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs. 3. Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs. 4. Demonstrate different methods for traversing trees.
CORE-4(Data Communication and Networking)	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. To introduce the basics of data communications and computer networks. 2. To examine and understand network protocols and architectures. 3. To educate the student in modern networking technologies. <p>Course Outcomes: On successful completion of this course, the student should:</p> <ol style="list-style-type: none"> 1. Understand the rudiments of how computers communicate. 2. Be familiar with the architecture of a number of different networks. 3. Understand the principles of protocol layering. 4. Be familiar with modern telecommunications.
CORE-5(Object Oriented Programming in C++)	<p>Course Objectives: The objective of course is to develop programming skills of students, using object oriented programming concepts, learn the concept of class and object using C++ and develop classes for simple applications.</p> <p>Course Outcomes: Upon completion of this course, the students will be able to:</p> <ol style="list-style-type: none"> 1. Understand the difference between the top-down and bottom-up approach. 2. Describe the object-oriented programming approach in connection with C++. 3. Apply the concepts of object-oriented programming 4. Illustrate the process of data file manipulations using

	<p>C++.</p> <ol style="list-style-type: none"> 5. Apply virtual and pure virtual function & complex programming situations.
CORE-6(Operating Systems)	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. A successful student will be able to understand the basic components of a computer operating system, and the interactions among the various components. 2. The course will cover an introduction on the policies for scheduling, deadlocks, memory management, synchronization, system calls, and file systems. 3. The students will implement solutions via C/C++ programs. <p>Course Outcomes: Upon successful completion of this course, students are expected to have the ability to:</p> <ol style="list-style-type: none"> 1. Describe and explain the fundamental components of a computer operating system. 2. Define, restate, discuss, and explain the policies for scheduling, deadlocks, memory management, synchronization, system calls, and file systems. 3. Describe and extrapolate the interactions among the various components of computing systems. 4. Design and construct the following OS components: System calls, Schedulers, Memory management systems, Virtual Memory and Paging systems.
CORE-7(Internetworking)	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. To understand the basic concepts of data communication, layered model, protocols and interworking between computer networks and switching components in telecommunication systems. 2. Discuss the nature, uses and implications of internet technology. 3. To understand the functioning of Frame Relay, ATM. 4. An overview of security issues related to data communication in networks. <p>Course Outcomes: On completion of the course, students are expected to have the ability to:</p> <ol style="list-style-type: none"> 1. Understand the basics of data communication, networking, internet and their importance. 2. Analyze the services and features of various protocol layers in data networks. 3. Differentiate wired and wireless computer networks. 4. Analyze TCP/IP and their protocols. 5. Recognize the different internet devices and their functions.

<p>CORE-8(E-Commerce)</p>	<p>6. Identify the basic security threats of a network.</p> <p>Course Objectives:</p> <ol style="list-style-type: none"> 1. This course provides an introduction to information systems for business and management. 2. It is designed to familiarize students with organizational and managerial foundations of systems, the technical foundation for understanding information systems. <p>Course Outcomes:</p> <p>After Completion of the subject student should able to:</p> <ol style="list-style-type: none"> 1. Understand the basic concepts and technologies used in the field of management information systems. 2. Have the knowledge of the different types of management information systems. 3. Understand the processes of developing and implementing information systems. 4. Be aware of the ethical, social, and security issues of information systems.
<p>CORE-9(Software Engineering)</p>	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. This course will prepare our students to be successful professionals in the field with solid fundamental knowledge of software engineering. 2. Be successful professionals in the field with solid fundamental knowledge of software engineering. 3. Utilize and exhibit strong communication and interpersonal skills, as well as professional and ethical principles when functioning as members and leaders of multi-disciplinary teams. 4. Apply their foundations in software engineering to adapt to readily changing environments using the appropriate theory, principles and processes. <p>Course Outcomes:</p> <p>At the time of graduation, all Software Engineering students will have demonstrated:</p> <ol style="list-style-type: none"> 1. How to apply the software engineering lifecycle by demonstrating competence in communication, planning, analysis, design, construction, and deployment. 2. An ability to work in one or more significant application domains. 3. Work as an individual and as part of a multidisciplinary team to develop and deliver quality software. 4. Demonstrate an understanding of and apply current theories, models, and techniques that provide a basis for the software lifecycle.

	5. Demonstrate an ability to use the techniques and tools necessary for engineering practice.
CORE-10(Database Management Systems)	<p>Course Objectives: The objective of the course is to present an introduction to database management systems, with an emphasis on how to organize, maintain and retrieve - efficiently, and effectively - information from a DBMS.</p> <p>Course Outcomes: Upon successful completion of this course, students should be able to:</p> <ol style="list-style-type: none"> 1. Describe the fundamental elements of relational database management systems 2. Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL. 3. Design ER-models to represent simple database application scenarios. 4. Convert the ER-model to relational tables, populate relational database and formulate SQL queries on data. 5. Improve the database design by normalization. 6. Familiar with basic database storage structures and access techniques: file and page organizations, indexing methods including B tree, and hashing.
CORE-11(Web Technology)	<p>Course Objectives: The course content enables students to:</p> <ol style="list-style-type: none"> 1. Understand best technologies for solving web client/server problems. 2. Analyze and design real time web applications. 3. Use Java script for dynamic effects and to validate form input entry. 4. Analyze to Use appropriate client-side or Server-side applications <p>Course Outcomes: At the end of the course students are able to:</p> <ol style="list-style-type: none"> 1. Choose, understand, and analyze any suitable real time web application. 2. Integrate java and server side scripting languages to develop web applications. 3. To develop and deploy real time web applications in web servers and in the cloud. 4. Extend this knowledge to .Net platforms.
CORE-12(Java Programming)	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. Gain knowledge about basic Java language syntax and semantics to write Java programs and use concepts such as variables, conditional and iterative

	<p>execution methods etc.</p> <ol style="list-style-type: none"> 2. Understand the fundamentals of object-oriented programming in Java, including defining classes, objects, invoking methods etc and exception handling mechanisms. 3. Understand the principles of inheritance, packages and interfaces. <p>Course Outcomes: At the end of the course, the student will be able to:-</p> <ol style="list-style-type: none"> 1. Identify classes, objects, members of a class and relationships among them needed for a specific problem. 2. Write Java application programs using OOP principles and proper program structuring. 3. Demonstrate the concepts of polymorphism and inheritance. 4. Write Java programs to implement error handling techniques using exception handling.
DSE-1(Computer Graphics)	<p>Course Objectives: The course content enables students to:</p> <ol style="list-style-type: none"> 1. Learn basic principles and problems of computer graphics. 2. Know application areas of computer graphics, different display devices and their characteristics to display an object. 3. Understand background of the geometrical and mathematical foundations with algorithms for generating points, lines, circles, ellipses and different polygon curves and surfaces. Learn coordinate systems and different transformations of the object in 2D and 3D coordinate systems like rotation, translation, scaling and reflection. 4. Understand 3D viewing, rendering, visible surface detection algorithms with animation fundamentals. <p>Course Outcomes: At the end of the course students are able to :</p> <ol style="list-style-type: none"> 1. Be familiarized with contemporary graphics hardware, the actual methodology and techniques to draw computer graphics, animations etc. for the real world presentation and how it is implemented in Computer graphics software. 2. Develop new kinds of graphics and animations. 3. Design and develop graphics applications with the implementation of advanced methods such as ray tracing, texture mapping, illumination and shading and be able to build interactive user interface to

	<p>manipulate objects in a 3D scene and also in the development of Web pages.</p> <p>4. Demonstrate the ability to develop an animation movie.</p>
DSE-2(Artificial Intelligence)	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. To provide a strong foundation of fundamental concepts in Artificial Intelligence. 2. To provide a basic exposition to the goals and methods of Artificial Intelligence. 3. To enable the student to apply these techniques in applications which involve perception, reasoning and learning. <p>Course Outcomes: On completion of the course students will be able to:</p> <ol style="list-style-type: none"> 1. Understand the various searching techniques, constraint satisfaction problem and example problems- game playing techniques. 2. Apply these techniques in applications which involve perception, reasoning and learning. 3. Explain the role of agents and how it is related to environment and the way of evaluating it and how agents can act by establishing goals. 4. Acquire the knowledge of real world Knowledge representation. 5. Analyze and design a real world problem for implementation and understand the dynamic behavior of a system. 6. Use different machine learning techniques to design AI machine and enveloping applications for real world problems.
CORE-13(Programming in Visual Basic)	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. The course is designed to guide the beginning programmer in developing applications using the Java and Visual Basic.Net (VB.NET) programming languages. 2. The ability to program using object-oriented tools is beginning to be treated as fundamental knowledge of the average MIS major. 3. Students will be introduced to object-oriented programming concepts along with the Java and VB.NET syntax to implement them. 4. Upon the completion of this course, students will know how to create and modify simple Java and VB.NET language applications, and will have the tools to create more complex examples. Students will also have a fundamental knowledge of object-

	<p>oriented concepts.</p> <p>Course Outcomes: After the completion of the course, Students will be able to:</p> <ol style="list-style-type: none"> 1. Understand the programming algorithm, process, and structure. 2. Understand and identify the fundamental concepts of object-oriented programming. 3. Understand and use the concepts of objects, primitive value, message, method, selection control structure, repetition control structures, object reference, container, and method parameter. 4. Know how to write and run a complete program. 5. Understand and identify the importance of object-oriented programming for the Internet based electronic commerce. 6. Understand the impact of Java and VB.NET on business
CORE-14(Data Warehousing and Data Mining)	<p>Course Objectives: The course content enables students to:</p> <ol style="list-style-type: none"> 1. Analyze the difference between On Line Transaction Processing and On Line analytical processing. 2. Create Multidimensional schemas suitable for data warehousing. 3. Understand various data mining functionalities. 4. Understand in detail about data mining algorithms. <p>Course Outcomes: At the end of the course students are able to:</p> <ol style="list-style-type: none"> 1. Design a data mart or data warehouse for any organization. 2. Extract knowledge using data mining techniques. 3. Adapt to new data mining tools. 4. Explore recent trends in data mining such as web mining, multimedia mining.
DSE-3(Cloud Computing)	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. Design an API and a distributed platform that are hardware, vendor agnostic, a unified resource representation. 2. Implement an agent system for negotiation of Cloud services. 3. Adapt tests and benchmarks for Cloud services and applications. 4. Evaluate features Private-Cloud and Design innovative cloud infrastructure. <p>Course Outcomes:</p> <ol style="list-style-type: none"> 1. Articulate the main concepts, key technologies, strengths, and limitations of cloud computing and the

	<p>possible applications for state-of-the-art cloud computing.</p> <ol style="list-style-type: none"> 2. Identify the architecture and infrastructure of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc. 3. Identify problems, and explain, analyze, and evaluate various cloud computing solutions. 4. Attempt to generate new ideas, innovations in cloud computing and collaboratively research and write a research paper, and present the research online.
DSE-4(Android Programming)	<p>Course Objectives:</p> <ol style="list-style-type: none"> 1. Android Application Development course is designed to quickly get you up to speed with writing apps for Android devices. 2. The student will learn the basics of Android platform and get to understand the application lifecycle. <p>Course Outcomes:</p> <p>By the end of the course, student will be able to:</p> <ol style="list-style-type: none"> 1. Write simple GUI applications, use built-in widgets and components. 2. Work with the database to store data locally, and much more.


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DEPARTMENT OF COMMERCE

COURSE OUTCOME

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SEMESTER-I

(CORE – 1) FINANCIAL ACCOUNTING

Objectives: The objective of this paper is to help students to acquire conceptual knowledge of financial accounting and to impart skills for recording various kinds of business transactions.

Learning Outcomes: The course structure of this paper would equip the students to get in-depth knowledge of financial accounting along with its practical application thereby giving an opportunity to gain easy access to this competitive business world.

(CORE – 2) BUSINESS LAW

Objective: The objective of the course is to impart basic knowledge of the important business laws along with relevant case laws.

Learning Outcomes: The students would be able to deal with the legal aspect of different business situations.

(GE- I) MICRO ECONOMICS

Objective: Objective of the course is to acquaint the students with the concepts of micro- economics dealing with consumer behavior. The course also makes the student understand the supply side of the market through the production and cost behavior of firms.

Learning Outcomes: The students would be able to apply tools of consumer behaviour and firm theory to business situations.

SEMESTER-II

(CORE – 3) COST ACCOUNTING

Objective: To acquaint the students with basic concepts used in cost accounting, various methods involved in cost ascertainment.

Learning Outcome: After the completion of this paper, the students will be able to have confidence in managing cost issues and also to keep a check on cost control and taking managerial decisions.

(CORE - 4) CORPORATE LAWS

Objectives: The objective of the course is to impart basic knowledge of the provisions of the Companies Act, 2013 and the Depositories Act, 1996. Case studies involving issues in corporate laws are required to be discussed.

Learning Outcomes: Students would acquire knowledge about the legal framework and the ways and means to deal with the legal aspect of different situations of corporate sector.

(GE – 2) MACRO AND INDIAN ECONOMY

Objectives: The course aims at providing the student with knowledge of basic concepts of the macro economics. The modern tools of macro-economic analysis are discussed and the policy framework is elaborated, including the open economy.

Learning Outcomes: Students would be able to apply the modern tools of macro-economic analysis so as to minimize the adverse impact of macro-economic factors on business.

SEMESTER-III

(CORE – 5) CORPORATE ACCOUNTING

Objectives: To help the students to acquire the conceptual knowledge of the corporate accounting and to learn the techniques of preparing the financial statements.

Learning Outcomes: This paper can provide conceptual clarity about the techniques to prepare financial statements of companies along with accounting treatment of various situations viz. floating of shares, amalgamation and liquidation of companies.

(CORE – 6) INCOME TAX LAW AND PRACTICE

Objective: To provide basic knowledge and equip students with the application of principles and provisions of Income Tax Act 1961.

Learning Outcomes: This paper would provide the understanding of various provisions of Income Tax Act as well as equip the students to make practical applications of the provisions for taxation purpose.

(CORE – 7) MANAGEMENT PRINCIPLES & APPLICATION

Objective: The objective of the course is to provide the student with an understanding of basic management concepts, principles and practices.

Learning Outcomes: Students would be able to make use of different management principles in the course of decision making in different forms of business organizations.

(GE – 3) BUSINESS STATISTICS

Objective: The objective of this course is to familiarize students with the basic statistical tools used for managerial decision-making.

Learning Outcomes: Students would be armed with the knowledge of using different statistical tools very much required in the decision making process in any business as well as business research.

SEMESTER – IV

(CORE – 8) GST & INDIRECT TAX

Objectives: The objective is to equip students with the principles and provisions of Goods and Services Tax (GST), which is implemented from 2017 under the notion of One Nation, One Tax and One Market and to acquaint students with basic provisions of GST Law and basic working knowledge.

Learning Outcome: Students will be able to know about difference between earlier indirect tax system and present tax system, the structure of GST, benefits of GST and importance.

(CORE- 9) FUNDAMENTALS OF DATA MANAGEMENT

Objective: Learn and practice data modeling using the entity-relationship and developing database designs. Understand the use of Structured Query Language (SQL) and learn SQL syntax. Apply normalization techniques to normalize the database, Understand the needs of database processing and learn techniques for controlling the consequences of concurrent data access. Understand the needs of Database Design.

Learning Outcome: After the completion of the course, Students will be able to describe data models and schemas in DBMS, to understand the features of database management systems and Relational database. To use SQL- the standard language of relational databases. To understand the functional dependencies and design of the database. To understand the concept of Transaction and Query processing.

(CORE – 10) MANAGEMENT ACCOUNTING

Objective: To acquaint the students with basic concepts of management accounting, and basic understanding of tools and techniques used for managerial decision making.

Learning Outcome: After the completion of this paper, the students will be able to have confidence in managing cost issues and also to keep a check on cost control and taking managerial decisions.

(GE – 4) PRINCIPLES OF MARKETING

Objective: The objective of this course is to provide basic knowledge of concepts, principles, tools and techniques of marketing.

Learning outcome: After the completion of this paper, the students will be able to identify marketing components and fit them in the value chain along with the various marketing strategies.

SEMESTER – V

(CORE – 11) COMPUTERIZES ACCOUNTING & E-FILING OF TAX RETURNS

Objective: Students shall learn to apply provisions of Income Tax Law and file returns of income electronically and application of accounting electronically.

Learning Outcome: After pursuing this paper, students will: learn the concepts of filing of income tax return and submit tax documents by using internet, learn about the availability of different types of tax returns under various heads of income and learn to differentiate between different types of income tax returns, acquire knowledge about provisions regarding returns of TDS and learn about different types of forms for filing TDS returns, and use of accounting softwares.

(CORE – 12) FUNDAMENTALS OF FINANCIAL MANAGEMENT

Objective: To familiarize the students with the principles and practices of financial management.

Learning Outcome: After the completion of this paper, students will be able to understand finance in a better way along with giving them insight to practical management of long and short finance for real business houses.

(DSE – 1) FINANCIAL MARKETS, INSTITUTIONS, & SERVICES

Objectives: To enable the students to understand the financial institutions operating in India and services provided by them.

Learning Outcome: After completion of this paper, the students will be able to understand the role and benefits of financial institution and services.

(DSE – 2) FINANCIAL STATEMENT ANALYSIS & REPORTING

Objectives: To enable the students to understand the basic knowledge about the financial statement analysis and reporting for economic decision making.

Learning Outcome: After the completion of this paper, the students will be able to prepare the end result of a business houses by preparation through financial statement analysis and reporting.

SEMESTER – VI

(CORE – 13) AUDITING & CORPORATE GOVERNANCE

Objective: To provide knowledge of auditing principles, procedures and techniques in accordance with current legal requirements and professional standards and to give an overview of the principles of Corporate Governance and Corporate Social Responsibility.

Learning Outcome: At the end of the paper student will have detail knowledge about principles and techniques of audit in accordance with current legal requirement and as per the guidelines of different statutory authorities.

(CORE – 14) BUSINESS MATHEMATICS

Objective: The objective of this course is to familiarize the students with the basic mathematical tools with emphasis on applications to business and economic situations.

Learning Outcome: After reading this subject the students will be able to understand basic concepts in the areas of business calculus and financial mathematics and to connect acquired knowledge with practical problems in economic practice.

(DSE – 3) FUNDAMENTALS OF CORPORATE TAX PLANNING

Objective: To provide a conceptual idea about the various provisions of tax planning related to corporate sector.

Learning outcome: After completion of this paper, students will be able to help tax consultants in tax planning, assessment and filing income tax returns of corporate sector, thereby they can get themselves self-employed.

(DSE – 4) BUSINESS RESEARCH METHODS & PROJECT WORK

Objective: This course aims at providing the general understanding of business research and the methods of business research. The course will impart learning about how to collect, analyze, present and interpret data.

Learning Outcome: After completion of this paper, the students will be able to assess and apply a range of research method on a practical project.


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Head of Department Commerce
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