ITES
(Business Process & ERP Operations)

Parvatibai Chowgule College of Arts and Science
(Autonomous)

Department of Applied and Professional Studies

Course Structure
Three Year B.Voc Degree Programme in ITES (Business Process & ERP Operations)

Semester	General Education Component			Skill Component		
I	BEO-G1 Language Paper 1	Theory Credits 4	Practicals Credits 0	BEO-SK1 Enterprise Resource Planning - I	Theory Credits 3	Practicals Credits 3
	BEO-G2 Elements of Basic Statistics	Theory Credits 4	Practicals Credits 0	BEO-SK2 Accounting Information System I	Theory Credits 3	Practicals Credits 3
	BEO-G3 Cyber Security	Theory Credits 4	Practicals Credits 0	BEO-SK3 Office Productivity Tools	Theory Credits 3	Practicals Credits 3
II	BEO-G4 Language Paper 2	Theory Credits 4	Practicals Credits 0	BEO-SK4 Enterprise Resource Planning - II	Theory Credits 3	Practicals Credits 3
	BEO-G5 Mathematical Foundation in Computer Science	Theory Credits 4	Practicals Credits 0	BEO-SK5 Accounting Information System II	Theory Credits 3	Practicals Credits 3
	BEO-G6 Digital marketing	Theory Credits 4	Practicals Credits 0	BEO-SK6 Invoice & Expense Management	Theory Credits 3	Practicals Credits 3
Outcome	1) Office Productivity Implementer / Trainer 2) ERP Assitant 3) Accounting Information System Implementer Assistant 4) Asset Module Implementer Assistant 5) AR / AP Module Implementer 6) Invoicing Module Implementer 7) Expenses Module Implementer Assistant					

Semester	General Education Component			Skill Component		
III	BEO-G7 Environmental Studies 1	Theory Credits 2	Practicals Credits 0	BEO-SK7 Programming	Theory Credits 3	Practicals Credits 3
	BEO-G8 Business Communications	Theory Credits 4	Practicals Credits 0	BEO-SK8 Database Management system.	Theory Credits 3	Practicals Credits 3
	BEO-G9 Quality management	Theory Credits 4	Practicals Credits 0	BEO-SK9 Inventory management system.	Theory Credits 3	Practicals Credits 3
	Internship	Credits 2				
IV	BEO-G10 Entrepreneurship	Theory Credits 4	Practicals Credits 0	BEO-SK10 Purchase Order Processing	Theory Credits 3	Practicals Credits 3
	BEO-G11 Personality Enhancement	Theory Credits 4	Practicals Credits 0	BEO-SK11 Sales Order Processing	Theory Credits 3	Practicals Credits 3
	BEO-G12 Environmental Studies 2	Theory Credits 2	Practicals Credits 0	BEO-SK12 Business Intelligence	Theory Credits 3	Practicals Credits 3
	Internship	Credits 2				
Outcome	1) Programming Assistant 2) DBM Implementer Assistant 3) Inventory Implementer Assistant 4) POP Implementer Assistant 5) SOP Implementer Assistant 6) Business Intelligence Assistant					

Semester	General Education Component			Skill Component		
V	BEO-G13 Organizational Behaviors	Theory Credits 4	Practicals Credits 0	BEO-SK13 Human Resources **OR** Material Requirements Planning	Theory Credits 3	Practicals Credits 3
	BEO-G14 Business Economics	Theory Credits 4	Practicals Credits 0	BEO-SK14 Project/Timesheets Management	Theory Credits 3	Practicals Credits 3
	BEO-G15 Human Values and Professional Ethics	Theory Credits 4	Practicals Credits 0	BEO-SK15 Customer Relationship Management	Theory Credits 3	Practicals Credits 3
VI	BEO-G16 E - Governance	Theory Credits 4	Practicals Credits 0	BEO-SK16 Product Lifecycle Management	Theory Credits 3	Practicals Credits 3
	BEO-G17 Business Ethics	Theory Credits 4	Practicals Credits 0	BEO-SK17 Helpdesk Management	Theory Credits 3	Practicals Credits 3
	BEO-G18 Latest Trends in ERP	Theory Credits 4	Practicals Credits 0	BEO-SK18 e-Commerce	Theory Credits 3	Practicals Credits 3
Outcome	1) HRM Implementer 2) Employees Module Implementer 3) Recruitment Module Implementer 4) Appraisals Module Implementer 5) Leaves Module Implementer 6) CRM Implementer Assistant 7) Project Module Implementer 8) Timesheets Module Implementer 9) Helpdesk Module Implementer 10) e-Commerce Implementer 11) MRP Implementer 12) PLM Implementer					

Annexure-II

Parvatibai Chowgule College of Arts and Science (Autonomous)

DEPARTMENT OF APPLIED AND PROFESSIONAL STUDIES

SYLLABUS

THREE YEAR B.VOC DEGREE PROGRAMME IN ITES (BUSINESS PROCESS & ERP OPERATIONS)

SEMESTER I

Course Title: Enterprise Resource Planning I
Course Code: BEO-SK1
Credits: 3
Marks: 75
Total Hours: 45
Courses Prerequisites: NIL

Course Objectives:

- To learn the integrated management of core business processes, often in real-time and mediated by software and technology.
- Understand how to collect, store, manage and interpret data from the many business activities.
- To track business resources—cash, raw materials, production capacity—and the status of business commitments: orders, purchase orders, and payroll.

Learning Outcome: At the end of this course, students will be able to

- Understand the structure of ERP systems, and the business processes used in the various business activities.
- Get hands-on training in On-premise Security Model, Cloud Security Model, Configuration Control & Base Setup, Master Data Management.

SYLLABUS

Module I: Overview of ERP Systems [5 Hrs]

What is an "Enterprise Resource Planning" (ERP) System? Advantages of an ERP System. Key ERP Vendors and Implementation Partners. ERP Career Path and Growth Prospects. On-Premise ERP vs Cloud ERP. Evaluation and Selection of ERP Packages. What is Business Process Re-engineering (BPR)?

Module II: ERP Implementation Life Cycle [10 Hrs]

Pre-Evaluation Screening. Package Evaluation. Project Planning. GAP Analysis. Reengineering. Configuration. Implementation Team Training. Testing. End-User Training. Going Live. Post Implementation.

Module III: ERP Management [15 Hr]

Management Fundamentals. Integration Management. Scope Management. Time Management. Cost Management. Quality Management. Human Resource Management. Communications Management. Risk Management. Procurement Management. Stakeholder

Management. Responsibilities of an ERP Manager. Keys to ERP Management Success. Importance of Senior Management Commitment to ERP. ERP Implementation Methodology

Module IV: ERP Security & Administration   [15 Hrs]

ERP System Architecture. Software Layers. Relational Databases. Cloud Architecture. Segregation of Duties (SoD). Access Controls. On-premise Security Model. Cloud Security Model. Configuration Control & Base Setup. Master Data Management

Textbook:

1. Ellen Monk, Bret Wagner, Concepts in Enterprise Resource Planning 4th edition, 2013.

References:
1. Liaquat Hossain, Jon David Patrick and M.A. Rashid, Enterprise Resource Planning: Global Opportunities & Challenges, Idea Group Publishing 2002.
2. https://odoo.thinkific.com/courses/odoo-functional

Lab: Enterprise Resource Planning I
Credits: 3
Marks: 75
Total Hours: 45
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1. Pre-Evaluation Screening, Package Evaluation, Project Planning & GAP Analysis process walkthrough using standard methodology, forms and data preparation.
2. Scope & Time Management
3. Quality and Cost Management
4. Human Resource & Risk Management
5. Stakeholder & Procurement Management
6. ERP System Architecture
7. Segregation of Duties (SoD)
8. Access Controls & Cloud Security Models
9. Configuration Control & Base Set up
10. Master Data Management

Software

- Odoo (Open Source)
- Tally ERP

Course Title: Accounting Information System I
Course Code: BEO-SK2
Credits : 3
Marks: 75
Total Hours: 45
Course Prerequisites: NIL

Course Objectives:

- Learn to use computer-based methods for tracking accounting activity in conjunction with information technology resources.

Learning Outcome: At the end of this course, students will be able to

- Get the bank statements synced with the bank automatically, or import files.
- Create sharp and professional invoices, manage recurring billings, and easily track payments.
- Control supplier invoices and get a clear forecast of your future bills to pay.
- Save time and automate 95% of reconciliation with smart reconciliation tool.

SYLLABUS

Module I: Manage Accounting Information   [9 Hrs]

Reduce data entry. Collaboration & Alerts. Pay Multiple Invoices. Easy setup. Mobile. Bank Interfaces.

Module II: Accounts Receivable   [12 Hrs]

Clean customer invoices. Advanced Payment terms. Draft invoice propositions. On-the-fly payment reconciliation. Credit Card Payments. Automated follow-upsAged receivable balance. Customer portal. Advanced customer statements.

Module III: Account Payables   [12 Hrs]

Control supplier bills. Employee expenses. Forecast expenses. Print checks. Deposit ticket. Automate wire transfers. Organize payment orders.

Module IV: Bank, Cash & Reconciliation   [6 Hrs]

Automate bank feeds. Manage cash registers. Import Statements, Smart Reconciliation. Easy outstanding payments. Reconciliation Report.

Module V: Advanced Access Rights & Multis   [6 Hrs]

Access Control Lists. Multi-currency support. Multi companies. Multiple users. Multi Journals.

Textbooks:

1. Els Van Vossel, Fabien Pinckaers, Open ERP for Accounting and Financial Management, Release 1.0, 2012

References:
1. Marianne Bradford, Select, Implement, and Use Today's Advanced Business Systems, 3rd e, 2015.
2. https://odoo.thinkific.com/courses/odoo-functional
3. https://quickbooks.intuit.com/tutorials/

Lab: Accounting Information System I
Credits: 3
Marks: 75
Total Hours: 45
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1. Automation of activities such as invoices generation, printing and dispatching, registering for bank statements, follow-up payments.
2. Reconciliation of payment with several invoices on the payment form.
3. Making multiple payments for one invoice, cash discounts, advance invoice, partial reconciliations.
4. Creating an invoice and setup the system for automatic suggestion for outstanding payments.
5. Registering on the forum to post questions and answer existing ones for supplier bills.
6. Forecasting future bills payment and Learning to support own payment flows with optional validation steps for payment orders.
7. Automation and tracking of bank feeds from the bank.
8. Automated and manual reconciliation for open and paid invoices, and audit between accounts and bank statements.
9. Set up of access rights and integration of company subsidiaries in the same system with real time reports.
10. Defining and organizing users with different access rights and splitting roles across several users.

Software

- Odoo (Open Source)

- Tally ERP
- QuickBooks

Course Title: Office Productivity Tools
Course Code: BEO-SK3
Credits: 3
Marks: 75
Total Hours: 45
Course Prerequisites: NIL

Course Objectives:

- To assist the students to know the application software dedicated to producing information, such as documents, presentations, worksheets, databases, charts, graphs etc.
- Learn to use Office suites, which includes word processing, spreadsheet, and presentation software.

Learning Outcome: At the end of this course, students will be able to

- Use the word processing functions, collaborative editing, indexing, version control, styles.
- Use the spreadsheet processing functions. Perform basic arithmetic and mathematical functions. Prepare tabular data.
- Use presentation program functions.

SYLLABUS

Module I: Word Processor   [15 Hrs]

Create and manage documents. Format text, paragraphs and sections. Create tables and lists. Create and manage references. Insert and format graphic elements.

Module II: Spreadsheets   [15 Hrs]

Create and manage worksheets and workbooks. Manage data cells and ranges. Create tables. Perform operations with formulas and functions. Create charts and objects.

Module III: Presentations   [15 Hrs]

Create and manage presentations. Insert and format text, shapes and images. Insert tables, charts, SmartArt and media. Apply transitions and animations. Manage multiple presentations.

Textbook:

1. Joan Lambert, MOS 2016 Study Guide for Microsoft Word, By Pearson Education, Inc., 2017

References:

1. Paul McFedries, MOS 2016 Study Guide for Microsoft Excel Expert, By Pearson Education, Inc., 2017
2. Joan Lambert, MOS 2016 Study Guide for Microsoft PowerPoint, By Pearson Education, Inc., 2017
3. https://www.gcflearnfree.org/topics/office2016/

Lab: Office Productivity Tools
Credits: 3
Marks: 75
Total Hours: 45
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1. Creating, navigating and customizing a word document and formatting the text.
2. Working with tables, lists and references.
3. Creating and manipulating graphic elements in a word document.
4. Creating, navigating and customizing a word document and formatting the data.
5. Create and format data tables.
6. References and functions.
7. Creating and analysing charts and graphs.
8. Creating, navigating and modifying new slides; insert and format text.
9. Inserting and formatting tables, charts, shapes, and SmartArt graphics.
10. Animating the slides and final touches.

Software

- Word processing (open source)
- Spreadsheet (open source)
- Presentation (open source)

Paper Title: Enterprise Resource Planning II
Paper Code: BEO-SK4
Credits: 3
Marks: 75
Total Hours: 45
Course Prerequisites: Enterprise Resource Planning I (BEO-SK1)

Course Objectives:

- To learn the integrated management of core business processes, often in real-time and mediated by software and technology.
- Understand how to collect, store, manage and interpret data from the many business activities.
- To track business resources—cash, raw materials, production capacity—and the status of business commitments: orders, purchase orders, and payroll.

Learning Outcome: At the end of this course, students will be able to:

- Understand the structure of ERP systems, and the business processes used in the various business activities.
- Get hands-on training in navigating various modules, entering data and understanding the effect data has on related modules, and the different reporting capabilities of ERP.

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Module I: Purchase Order Processing   [15 Hrs]

Purchase Order Processing Overview (POP). Suppliers. Requisitions. RFQs and Quotations. Purchase Orders. Receiving. Invoicing. Payment. Accounting Entries. Landed Cost Management (LCM). Key Performance Indicators (KPIs).

Module II: Sales Order Processing   [15 Hrs]

Sales Order Processing Overview (SOP). Customers. Entering and Managing Orders. Order Scheduling. Shipping Execution. Auto Invoice. Receivables. Accounting Entries. Key Performance Indicators (KPIs).

Module III: General Ledger & Financial Reporting   [15 Hrs]

What is Record to Report (R2R)? Stages of Record to Report. General Ledger Overview. Ledger. Foreign and Multiple Currency Concepts. Basic Journal Entries & Reconciliation. Recurring Journal Entries. Allocations. Journal Approval Process. Budgeting. Sub Ledger Accounting (SLA). Reporting and Analysis. Key Performance Indicators (KPIs).

Textbook:
Ellen Monk, Bret Wagner Concepts in Enterprise Resource Planning (4th e), 2013

References:
1. Liaquat Hossain, Jon David Patrick and M.A. Rashid, Enterprise Resource Planning: Global Opportunities & Challenges, Idea Group Publishing 2002.
2. https://odoo.thinkific.com/courses/odoo-functional

Lab: Enterprise Resource Planning II
Credits: 3
Marks: 75
Total Hours: 45

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1. Prepare and maintain supplier and requisitions records with details and following defined process
2. Prepare quotation and purchase orders.
3. Prepare receipts and invoices on receiving ordered goods/services and make payments and accounting entries.
4. Maintain customer database; entering, and Managing Orders
5. Order Scheduling and Shipping Execution
6. Auto invoice, receivables and accounting
7. Maintaining a Ledger; Foreign and Multiple Currency Concepts.
8. Basic Journal Entries, Reconciliation and Recurring Journal Entries.
9. Allocations and Journal Approval
10. Budgeting and Sub Ledger Accounting (SLA)

Software

- Odoo (Open Source)
- Tally ERP

Course Title: Accounting Information System II
Course Code: BEO-SK5
Credits: 3
Marks: 75

Total Hours: 45
Course Prerequisites: Accounting Information System II (BEO-SK2)

Course Objectives:

- Learn to use computer-based methods for tracking accounting activity in conjunction with information technology resources.

Learning Outcome: At the end of this course, students will be able to:

- Prepare beautiful dynamic statements. Easily create your earnings report, balance sheet or cash flow statements. Quickly filter, zoom, annotate and compare any data.
- Use business intelligence's cubes to report across any dimension. Track assets, depreciation boards and generate amortization entries automatically.
- Manage all events on assets in just a few clicks.

SYLLABUS

Module I: Performance Reports   [9 Hrs]

Business Intelligence reports. Multiple standard reports. Customizable dashboards. Annotate any report. Perpetual fiscal year closing.

Module II: Legal Statements   [15 Hrs]

Navigate easily through the flow of information from the Profit & Loss report. Tax engine support a wide range of tax computations. Consolidated Journal Report. Balance Sheet. Tax reports. Country-specific statements. Tax Audit Report.

Module III: Analytic Accounting   [3 Hrs]

Hierarchies of cost accounts. Fully integrated entries. Multiple-plans between accounts.

Module IV: Subscriptions   [6 Hrs]

Automatic Invoicing. Renewal alerts. Customer portal. Recurring revenues & extra.

Module V: Assets & Revenues   [9 Hrs]

Assets Management. Revenue Recognition. Budgets. Revenue dashboard.

Module VI: Connect to other data sources   [3 Hrs]

Web-service API. Google spreadsheet integration. Flexible Import-Export. Sales. Inventory. Purchase. E-commerce. Customer portal. Expenses. Point-of-sale.

Textbook:

1. Els Van Vossel, Fabien Pinckaers, Open ERP for Accounting and Financial Management, Release 1.0, 2012,

References:
1. Marianne Bradford Select, Implement, and Use Today's Advanced Business Systems, 3rd e, 2015
2. https://odoo.thinkific.com/courses/odoo-functional
3. https://quickbooks.intuit.com/tutorials/

Lab: Accounting Information System II
Credits: 3
Marks: 75
Total Hours: 45
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1. Create dashboard by assembling custom reports; Navigate reports using their dynamic structure.
2. Perform perpetual fiscal year closing without reporting balance sheet accounts from one year to another.
3. Working with a ledger and the profit and loss statement.
4. Getting tax reports in accrual or cash based, formatted according to the right country and using a tax audit report.
5. Learn to structure analytic accounts based on projects, contracts, departments, etc.
6. Manage subscription and recurring revenues easily with contracts.
7. Allow customers to change their plans, order upgrades or downgrade / unsubscribe through the customer portal.
8. Track assets, depreciation boards and generate amortization entries.
9. Track your budget and compare actual performance with different budget.
10. Connect third party applications with the web service API.

Software

- Odoo (Open Source)
- Tally ERP

Course Title: Invoice & Expense Management
Course Code: BEO-SK6
Credits: 3
Marks: 75
Total Hours: 45
Course Prerequisites: NIL

Course Objectives:

- To enable the students to know all the practises of managing invoices, pre invoices, quotes, billing.
- To enable the students to know all the documentations for managing expenses.

Learning Outcome: At the end of this course, students will be able to:

- Learn to manage contracts, create recurring invoices, bill timesheets, getting paid faster. Turn Quotes into Invoices.
- Bill automatically based on sales orders, delivery orders, contracts, or time and material.
- Send professional looking invoices directly to your clients by email as a PDF attachment or print. Accept online payments via Payment Gateways.
- Automate follow-ups and help to streamline billing to make payments quick and easy. Keep track of bank account movements and the status of invoices.

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<u>Module I: Manage Invoices</u>   [15 Hrs]

Create customer invoices. Multi-company rules. Manage supplier invoices. Payments terms.

<u>Module II: Invoice Payments</u>   [12 Hrs]

Invoices overview. Import bank statements. Multiple currencies. Get paid online. Batch Payments.

<u>Module III: Manage & Record Expenses</u>   [9 Hrs]

Review expense records. Manage per team. Ask questions and give answers. Add comments. Add attachments.

<u>Module IV: Reports</u>   [9 Hrs]

Full accounting reports. Invoice Management: sales, inventory, timesheet, projects. Expense Management: Employees, Invoicing.

Textbook:

1. Els Van Vossel, Fabien Pinckaers, Open ERP for Accounting and Financial Management, Release 1.0, 2012.

Reference:

1. https://odoo.thinkific.com/courses/odoo-functional

Lab: Invoice & Expense Management
Credits: 3
Marks: 75
Total Hours: 45
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1. Create customer invoices. Issue clear, complete and professional invoices.
2. Create credit notes and manage reimbursements and compare what you have received with the vendor bill to release an invoice for payment.
3. Setup recurring invoices and payment terms.
4. Understanding invoices and filtering by status. Importing bank statements into the system in format: OFX, QIF, CSV, CODA.
5. Setup automated follow-ups. Create steps and automated actions to be taken by the system in case of a payment issue.
6. Review employee's notes to complete, validate or refuse them.
7. Setup system to allow employees to record expenses for their professional spending with a clear overview of all the spending for a defined period, for events, travels, etc.
8. Get a clear overview of all expenses' statuses at once as well as separately with attachments to expense records to provide reviewers with proof of spending such as tickets, bills, etc.
9. Get complete reports for journals, legal statements, chart of accounts, etc.
10. Set up your tax rules to automatically calculate them in your invoice, and define where rounding occur to get accurate reports.

Software

- Odoo (Open Source)