<table>
<tr><td>1.</td><td>Name of Course</td><td colspan="6">Open Source for the Enterprise</td></tr>
<tr><td>2.</td><td>Course Code</td><td colspan="6">GICT5023</td></tr>
<tr><td>3.</td><td>Name(s) of academic staff</td><td colspan="6"></td></tr>
<tr><td>4.</td><td>Rationale for the inclusion of the course/module in the programme</td><td colspan="6"><u>Core Module</u>
Open source software is changing the world of Information and Communication Technology. However, making Open source software work for an enterprise is far more complicated than simply installing a copy of Linux. Any organization that is serious about using open source to cut costs, accelerate development, and reduce vendor lock-in, must institutionalize skills and create new ways of working. An understanding on how open source is different from commercial software and what responsibilities and risks it brings is a must.</td></tr>
<tr><td>5.</td><td>Semester and Year offered</td><td colspan="6">Semester 2 / Year 1</td></tr>
<tr><td rowspan="3">6.</td><td>Total Student Learning Time (SLT)</td><td colspan="4">Face to Face</td><td colspan="2">Total Guided and Independent Learning</td></tr>
<tr><td rowspan="2">L = Lecture
T = Tutorial
P = Practical
O= Others</td><td>L</td><td>T</td><td>P</td><td>O</td><td rowspan="2">Independent study=84 hours

Total =126</td></tr>
<tr><td>28</td><td>14</td><td>/</td><td>84</td></tr>
<tr><td>7.</td><td>Credit Value</td><td colspan="6">3
28 Hours of Lecture
14 Hours of Tutorial</td></tr>
<tr><td>8.</td><td>Prerequisite (if any)</td><td colspan="6">None</td></tr>
<tr><td>9.</td><td colspan="7">Objectives:
Open Source has become a strategic business issue; decisions on how and where to choose to use Open Source now have a major impact on the overall direction of IT abilities to support the business both with capabilities and by controlling costs. The subject is to provide a top to bottom view not only of the technology, but of the skills required to manage it and the organizational issues that must be addressed. The subject will address the productization gap in most open source projects and the ROI of open source calculation; in addition to the needed skills to use open source and how will using open source transform an IT department.</td></tr>
<tr><td>10.</td><td colspan="7">Learning outcomes:
By the end of the subject, students should be able to:
• Demonstrate an understanding of The Nature of Open Source
• Measure the Maturity of Open Source
• Identify the Open Source Skill Set
• Make the ROI Case and ROI Model
• Design an Open Source Strategy
• Identify the support Models for Open Source
• Make Open Source Projects Easy to Adopt
• Differentiate between and compare the Open Source Licenses
• Demonstrate an understanding of the Three Open Source Platforms
• Assemble an Open Source Platform
• Identify the basic elements of End-User Computing on the Desktop
• Demonstrate an understanding of Open Source Application Development</td></tr>
</table>

11. **Transferable Skills:**

- Literature and data searching skills
- Independent study and self learning skills
- Technical writing and presentation skills
- Oral/Written Communication skills
- Critical thinking and problem solving skills
- Time and Self-management skills
- Teamwork skills
- Independent research skills
- Analysis and decision-making skills
- IT skills

12. **Teaching-learning and assessment strategy**

A variety of teaching and learning strategies are used throughout the course, including:

- Classroom lessons. Lectures and Power Point presentations
- Tutorials
- Hands-on Laboratory Sessions
- brainstorming
- Lecturer-led problem-solving sessions
- Solving assigned problems in groups and individually
- collaborative and co-operative learning;
- Independent study.

Assessment strategies include the following:

- Performance Assessment (Project, participation, Assigned exercises)
- Lecturer Observation
- Quizzes, tests, and examinations

13. **Synopsis:**

In the subject, models to help an IT department evaluate and implement open source software in the business environment are presented. These models include the Open Source Maturity Model, The Open Source Skills and Risk Tolerance model, and The Software Cost and Risk model. Reviews of identified mature open source software packages are also provided. In addition to covering the Open Source Platform, End-User Computing on the Desktop, and application development.

14. **Mode of Delivery:**

- Classroom lessons. Lectures and Presentations
- Tutorial sessions: Practice exercises
- Hands-on Laboratory Sessions

15. **Assessment Methods and Types:**

The assessment for this course will be based on the following:

Coursework		**50%**
• Midterm test	**10%**	
• Assignment	**10%**	
• Project	**30%**	
Final Examination		**50%**
Assessment		**100%**

16. **Mapping of the course/module to the Programme Aims**

A1	A2	A3	A4	A5	A6	A7
5	4	3	4	3	3	2

17. **Mapping of the course/module to the Programme Learning Outcomes**

LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8

	4	3	4	4	3	3	4	3
18.	**Content outline of the course/module and the SLT per topic**							

	Details	SLT				
		L	T	P	O	Total
Topic 1	**The Nature of Open Source** • The Open Source Debate • Understanding Your Open Source Readiness • The Nature of Open Source • What Is Open Source? • Where Does Open Source Come From? • How Does Open Source Grow? • How Does Open Source Die? • Leadership in the Open Source Life Cycle • Second-Generation Trends in Open Source • The Different Roots of Commercial Software • Productization: The Key to Understanding the Challenge of Using Open Source • Comparing the Risks of Commercial and Open Source Software	2	1	**0**	**6**	**9**
Topic 2	**Measuring the Maturity of Open Source** • Open Source Traps • The Elements of Open Source Maturity • The Open Source Maturity Model	2	1	**0**	**6**	**9**
Topic 3	**The Open Source Skill Set** • Preventing an Open Source Nightmare • Open Source Skill Levels • Open Source Skills Inventory • How Maturity Affects Required Skills and Resources • Skills and Risks • Open Source Skill Building	2	1	**0**	**6**	**9**
Topic 4	**Making the ROI Case** • ROI Fashions • How Open Source Costs Differ from Commercial Software Costs • Making Your Own ROI Model • Skills Versus Money	2	1	**0**	**6**	**9**
Topic 5	**Designing an Open Source Strategy** • Crafting a Strategy for Open Source Adoption • Crafting a Strategy for Applying Open Source • Crafting a Strategy for Managing Open Source	2	1	**0**	**6**	**9**

	Topic 6	**Support Models for Open Source** • Open Source Support Offers • When Is Commercial Open Source Support the Right Choice? • Buy Carefully	2	1	**0**	**6**	**9**
	Topic 7	**Making Open Source Projects Easy to Adopt** • One Program for Productization • Basic Information and Community Support • Reducing the Skills Gap for Getting Started • Accelerating Learning • Integration • Benefits of Increased Adoption • Opportunities for Skill Building	2	1	**0**	**6**	**9**
	Topic 8	**A Comparison of Open Source Licenses** • Many Flavors of Licenses • The Classic Licenses • The BSD Licenses: FreeBSD, OpenBSD, and NetBSD • The MIT License • Second-Generation/Single-Project Licenses • Corporate Licenses • Why Pick Just One? The Dual Licensing Option	2	1	**0**	**6**	**9**
	Topic 9	**Open Source Under Attack** • SCO Versus IBM and the Legal Quandary of Open Source • What You Need to Know About SCO • What It All Means: The Implications of the SCO Crisis	2	1	**0**	**6**	**9**
	Topic 10	**Open Source Empowerment** • Two Poles of IT: Buy Versus Build • Where to Buy, Where to Build • Closing the Requirements Gap • Open Source Empowerment • The Vision and Challenge of IT	2	1	**0**	**6**	**9**
	Topic 11	**The Open Source Platform** • What Is a Platform? • Three Open Source Platforms • Assembling Your Open Source Platform	2	1	**0**	**6**	**9**

	Topic 12	**End-User Computing on the Desktop** • Solutions • Capabilities • Open Source Desktop Environments: KDE • Desktop Productivity Suites • Desktop Database Management: MySQL • Web Browsing: Firefox	2	1	**0**	**6**	**9**
	Topic 13	**Open Source and Email** • A Brief History of Email for Enterprise Use • Opportunities for IT Use of Open Source Email Products • Open Source Email Server Solutions • Recommended Email Server Projects • Open Source Email Client Solutions • Content Scanners • Mailing List Managers	2	1	**0**	**6**	**9**
	Topic 14	**Application Development** • Capabilities • Open Source Application Servers	2	1	**0**	**6**	**9**
	Total SLT		**126**				
19.	**Main references supporting the course:** 1. Dan Woods, Gautam Guliani, **"Open Source for the Enterprise: Managing Risks, Reaping Rewards"**. O'Reilly Media, 2005.						
	Additional references supporting the course: 1. Chris DiBona, Mark Stone, Danese Cooper. "Open Sources 2.0: The Continuing Evolution", O'Reilly Media, 2005. 2. Karl Fogel. "Producing Open Source Software: How to Run a Successful Free Software Project". O'Reilly Media, 2005. 3. Fadi P. Deek, James A. McHugh. "Open source: technology and policy", Cambridge University Press, 2007. 4. Karl Fogel, Moshe Bar. "Open Source Development with CVS", Paraglyph Press, 2002.						
20.	**Other additional information** All materials will be available to the students online.						