

Title of the Module / Unit	Object Oriented Programming
Module / Unit Description Provide a brief description of the module.	This module enables learners to become familiar with the underpinning concepts of object oriented programming and subsequently to develop particular skills in an object oriented language. This module includes the features of object oriented programming and explores different tools and techniques used in design and software development.
	<p>Competences: – at the end of the module/unit the learner will have acquired the responsibility and autonomy to:</p> <ul style="list-style-type: none"> a) Be able to use a structured approach to the design and development of applications b) Be able to use the tools and techniques of an object oriented language c) Implement a working object oriented application to meet specific requirements d) Explore a problem and identify different ways of tackling it <p>Knowledge – at the end of the module/unit the learner will have been exposed to the following:</p> <ul style="list-style-type: none"> a) Understand the characteristics of object oriented programming b) Demonstrate the use of object oriented tools and techniques c) Understand the basic concepts to implement object oriented applications <p>Skills – at the end of the module/unit the learner will have acquired the following skills:</p> <p>Applying knowledge and understanding</p>

Learning Outcomes	<p>The learner will be able to:</p> <ul style="list-style-type: none">a) Evaluate the suitability of object oriented programs for different applicationsb) Design an object oriented application to meet user requirementsc) Test an object oriented applicationd) Create user technical documentation for the support and maintenance of a computer program
	<p><i>Judgment Skills and Critical Abilities</i></p> <p>This section has been made sufficiently open to accommodate both vocational and academic orientations. Applicants can refer to Judgement Skills, or Critical Abilities (critical skills, dispositions, values and actions), or both.</p> <p>The learner will be able to:</p> <ul style="list-style-type: none">a) Plan and implement appropriate action to solve problemsb) Check if the problem has been solved and review his/her approach to problem solvingc) Analyse actual test results against expected results to identify discrepancies
	<p><i>Module-Specific Communication Skills</i></p> <p>(Over and above those mentioned in Section B)</p> <p>The learner will be able to:</p> <ul style="list-style-type: none">a) Explain the key features of object oriented programsb) Describe the purpose of onscreen help to assist the user

	<p>c) Explain the importance of encapsulation, polymorphism and inheritance on object oriented programming</p>
	<p><i>Module-Specific Learner Skills</i> (Over and above those mentioned in Section B)</p> <p>The learner will be able to</p> <ul style="list-style-type: none">a) Be able to use simple object oriented design methodsb) Ensure the programming solution is well documented against the original user requirementsc) Ensure the programming solution is well tested against the original user requirements
	<p><i>Module-Specific Digital Skills and Competences</i> (Over and above those mentioned in Section B)</p> <p><i>(These digital skills are covered by the primary objectives of this course – so the skills referred to above address this section)</i></p> <p>The learner will be able to</p> <ul style="list-style-type: none">a)b)c)etc.

<p>Hours of Total Learning for this Module / Unit</p> <p>1 ECTS is equivalent to 25 total hours of learning, inclusive of contact hours, supervised placement and practice hours, self-study hours and assessment hours. At least 20% (5 hours for every ECTS) must be <u>contact hours</u> or as otherwise established from time to time by NCFHE.</p>	<p>Total Contact Hours ¹</p> <p style="text-align: right;">105</p> <p>(Contact Hours are hours invested In learning new content under the Direction of a tutor/lecturer (e.g. lectures, participation in online forums, video-lectures).</p>	<p>Supervised Placement and Practice Hours</p> <p style="text-align: right;">30</p> <p>(During these hours the learner is supervised, coached or mentored.)</p>
	<p>Self-Study Hours</p> <p style="text-align: right;">300</p> <p>(Estimated workload of research and study.)</p>	<p>Assessment Hours</p> <p style="text-align: right;">65</p> <p>(Examinations/ presentations/ group work/ projects etc.)</p>
<p>Total Learning Hours of this Module</p>	<p>_____500_____ Hours</p>	
<p>Percentage of Total Contact Hours delivered online.</p> <p>In the case of online/blended learning, kindly indicate the total number of contact hours delivered online and those face-to-face.</p>	<p>Contact Hours Delivered Online</p> <p style="text-align: right;">N/A</p>	<p>Contact Hours Delivered Face-to-Face</p> <p style="text-align: right;">100%</p>

¹ In the case of online learning, synchronous and asynchronous learning activities under the direction and control of an instructor are considered as contact hours.