1. **Catalog Description of the Course.**  
**IT 262 COMPUTER ORGANIZATION AND ARCHITECTURE FOR IT (3)**  
Three hours of lecture per week  
Prerequisites: COMP 162  

2. **Mode of Instruction.**

<table>
<thead>
<tr>
<th>Units</th>
<th>Hours per Unit</th>
<th>Benchmark Enrollment</th>
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<td>Lecture</td>
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<tr>
<td>Seminar</td>
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<tr>
<td>Laboratory</td>
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<td>0</td>
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<tr>
<td>Activity</td>
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3. **Justification and Learning Objectives.**  
Justification: BSIT required course.  
Learning Objectives:  
Students who successfully complete this course will be able to:  
1. Organize and express ideas clearly and convincingly in oral and written forms  
2. Evaluate the architecture of a computer system  
3. Compare and contrast computer architectures  
4. Design circuits at the gate-level using and/or/not/multiplexors/decoders/encoders  
5. Use benchmarking tools to measure computer system performance

4. **Is this a General Education Course?**  
No.

5. **Course Content in Outline Form.**  
Topics:  
1. Components of a typical computer system  
2. Instruction level architecture  
3. Data representation  
4. Digital logic  
5. PC Architecture  
6. RISC and CISC architectures  
7. Benchmarking  
8. Non von Neumann architectures

6. **Cross-listed Courses.**  
None.

7. **References.**

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Publisher</th>
<th>Year</th>
<th>ISBN</th>
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<tbody>
<tr>
<td>Essentials of Computer Organization and</td>
<td>Null &amp;</td>
<td>Jones and</td>
<td>2003</td>
<td>076370444X</td>
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<td>Architecture</td>
<td>Lobur</td>
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8. **Faculty Qualified to Teach This Course.**  
Qualified Faculty: Smith, Wolfe

9. **Frequency.**  
Projected semesters to be offered: Fall, Spring

10. **New Resources Required.**

a. New Equipment needs: Use of existing computer lab.  
b. New Library needs: none  
c. New Space/Facilities needs: none

11. **Program Modifications.**  
None.

12. **Proposer of Course.**  
Proposer: Smith, Wolfe  Date: 7/13/2004