

**CURRICULUM: BISOFT - BACHELOR OF SOFTWARE ENGINEERING**

**REQUISITO DE INGRESO:** High School Diploma or its Equivalent



| CODE             | COURSES                                  | REQUIREMENTS         | HOURS | CREDITS | COST              |
|------------------|------------------------------------------|----------------------|-------|---------|-------------------|
| <b>1 QUARTER</b> |                                          |                      |       |         |                   |
| FUN-01           | Introduction to Information Technologies |                      | 3     | 3       | ¢105.000          |
| FUN-02           | Logic and Basic Mathematics              |                      | 4     | 3       | ¢123.000          |
| FUN-08           | Oral and Written Communication           |                      | 3     | 3       | ¢94.000           |
| SOFT-01          | Programming Principles I                 |                      | 6     | 5       | ¢180.000          |
| SOFT-09          | Introduction to Software Engineering     |                      | 4     | 3       | ¢123.000          |
|                  | <b>ENROLLMENT</b>                        |                      |       |         | <b>¢89.000</b>    |
|                  | <b>TECNO FEE</b>                         |                      |       |         | <b>¢19.500</b>    |
|                  | <b>SUBTOTAL</b>                          |                      |       |         | <b>¢722.500</b>   |
| CODE             | COURSES                                  | REQUIREMENTS         | HOURS | CREDITS | COST              |
| <b>2 QUARTER</b> |                                          |                      |       |         |                   |
| FUN-02           | Matemática Discreta 1                    | FUN-02               | 4     | 3       | ¢123.000          |
| FUN-05           | Differential and Integral Calculus       | FUN-02               | 4     | 3       | ¢123.000          |
| FUN-09           | Soft Skills Development                  | FUN-08               | 3     | 3       | ¢94.000           |
| SOFT-02          | Programming Principles II                | SOFT-01              | 6     | 5       | ¢180.000          |
| SOFT-06-C2       | Web Design and Development               |                      | 4     | 4       | ¢161.000          |
|                  | <b>ENROLLMENT</b>                        |                      |       |         | <b>¢89.000</b>    |
|                  | <b>TECNO FEE</b>                         |                      |       |         | <b>¢19.500</b>    |
|                  | <b>SUBTOTAL</b>                          |                      |       |         | <b>¢789.500</b>   |
| CODE             | COURSES                                  | REQUIREMENTS         | HOURS | CREDITS | COST              |
| <b>3 QUARTER</b> |                                          |                      |       |         |                   |
| FUN-14           | English I                                |                      | 3     | 2       | ¢116.000          |
| FUN-17           | Discrete Mathematics II                  | FUN-03               | 4     | 3       | ¢161.000          |
| FUN-18           | Physics I                                | FUN-05               | 4     | 3       | ¢161.000          |
| SOFT-10          | Data Structures                          | SOFT-02              | 4     | 3       | ¢143.000          |
| SOFT-11-C1       | INTEGRATIVE PROJECT I                    | SOFT-09   SOFT-06-C2 | 8     | 5       | ¢326.000          |
|                  | <b>ENROLLMENT</b>                        |                      |       |         | <b>¢89.000</b>    |
|                  | <b>TECNO FEE</b>                         |                      |       |         | <b>¢19.500</b>    |
|                  | <b>SUBTOTAL</b>                          |                      |       |         | <b>¢1.015.500</b> |

| CODE              | COURSES                     | REQUIREMENTS     | HOURS | CREDITS | COST            |
|-------------------|-----------------------------|------------------|-------|---------|-----------------|
| <b>4 QUARTER</b>  |                             |                  |       |         |                 |
| FUN-06            | Linear Algebra              | FUN-03           | 4     | 3       | ¢123.000        |
| FUN-10            | Critical Thinking           | FUN-09           | 3     | 3       | ¢109.000        |
| FUN-19            | Physics II                  | FUN-18           | 4     | 3       | ¢161.000        |
| SOFT-03           | Database Fundamentals       | FUN-01   SOFT-01 | 6     | 4       | ¢180.000        |
| SOFT-04           | Object-Oriented Programming | SOFT-02          | 6     | 5       | ¢210.000        |
| <b>ENROLLMENT</b> |                             |                  |       |         | <b>¢89.000</b>  |
| <b>TECNO FEE</b>  |                             |                  |       |         | <b>¢19.500</b>  |
| <b>SUBTOTAL</b>   |                             |                  |       |         | <b>¢891.500</b> |

| CODE              | COURSES                        | REQUIREMENTS         | HOURS | CREDITS | COST            |
|-------------------|--------------------------------|----------------------|-------|---------|-----------------|
| <b>5 QUARTER</b>  |                                |                      |       |         |                 |
| FUN-04            | Probability and Statistics I   |                      | 4     | 3       | ¢123.000        |
| FUN-15            | English II                     | FUN-14               | 3     | 2       | ¢116.000        |
| SOFT-12-C1        | Advanced Web Programming       | SOFT-04   SOFT-06-C2 | 6     | 4       | ¢210.000        |
| SOFT-13-C1        | Software Architecture I        | SOFT-03   SOFT-04    | 6     | 3       | ¢210.000        |
| SOFT-14           | Software Engineering Processes | SOFT-09              | 4     | 3       | ¢161.000        |
| <b>ENROLLMENT</b> |                                |                      |       |         | <b>¢89.000</b>  |
| <b>TECNO FEE</b>  |                                |                      |       |         | <b>¢19.500</b>  |
| <b>SUBTOTAL</b>   |                                |                      |       |         | <b>¢928.500</b> |

| CODE              | COURSES                                       | REQUIREMENTS            | HOURS | CREDITS | COST            |
|-------------------|-----------------------------------------------|-------------------------|-------|---------|-----------------|
| <b>6 QUARTER</b>  |                                               |                         |       |         |                 |
| FUN-07            | Probability and Statistics II                 | FUN-04                  | 4     | 3       | ¢143.000        |
| FUN-11            | Leadership and Teamwork                       | FUN-10                  | 3     | 3       | ¢109.000        |
| FUN-20            | Physics III                                   | FUN-19                  | 4     | 3       | ¢161.000        |
| SOFT-17           | Software Quality, Verification and Validation | SOFT-14                 | 4     | 3       | ¢161.000        |
| SOFT-18-C1        | INTEGRATIVE PROJECT II                        | SOFT-12-C1   SOFT-13-C1 | 8     | 5       | ¢314.000        |
| <b>ENROLLMENT</b> |                                               |                         |       |         | <b>¢89.000</b>  |
| <b>TECNO FEE</b>  |                                               |                         |       |         | <b>¢19.500</b>  |
| <b>SUBTOTAL</b>   |                                               |                         |       |         | <b>¢996.500</b> |

| CODE              | COURSES                           | REQUIREMENTS | HOURS | CREDITS | COST            |
|-------------------|-----------------------------------|--------------|-------|---------|-----------------|
| <b>7 QUARTER</b>  |                                   |              |       |         |                 |
| FUN-16            | English III                       | FUN-15       | 3     | 2       | ¢126.000        |
| SINT-04           | Introduction to AI                | FUN-07       | 4     | 3       | ¢161.000        |
| SOFT-15           | Human-Computer Interaction Design | SOFT-12-C1   | 4     | 3       | ¢161.000        |
| SOFT-16           | Software Architecture II          | SOFT-13-C1   | 6     | 3       | ¢210.000        |
| TI-03             | Computer Architecture             | FUN-01       | 4     | 3       | ¢161.000        |
| <b>ENROLLMENT</b> |                                   |              |       |         | <b>¢89.000</b>  |
| <b>TECNO FEE</b>  |                                   |              |       |         | <b>¢19.500</b>  |
| <b>SUBTOTAL</b>   |                                   |              |       |         | <b>¢927.500</b> |

| CODE             | COURSES                                 | REQUIREMENTS | HOURS | CREDITS | COST            |
|------------------|-----------------------------------------|--------------|-------|---------|-----------------|
| <b>8 QUARTER</b> |                                         |              |       |         |                 |
| FUN-12           | Ethics and Sustainability in Technology | FUN-11       | 3     | 3       | €123.000        |
| SOFT-22          | Mobile Programming                      | SOFT-15      | 4     | 3       | €161.000        |
| TI-01            | Networking Fundamentals                 | FUN-01       | 3     | 3       | €123.000        |
| ELEC 1           | Elective I                              |              | 4     | 4       | €189.000        |
|                  | <b>ENROLLMENT</b>                       |              |       |         | <b>€89.000</b>  |
|                  | <b>TECNO FEE</b>                        |              |       |         | <b>€19.500</b>  |
|                  | <b>SUBTOTAL</b>                         |              |       |         | <b>€704.500</b> |

| CODE             | COURSES                       | REQUIREMENTS      | HOURS | CREDITS | COST            |
|------------------|-------------------------------|-------------------|-------|---------|-----------------|
| <b>9 QUARTER</b> |                               |                   |       |         |                 |
| CIB-06           | Secure Software Development   | SOFT-16   TI-01   | 4     | 3       | €161.000        |
| FUN-13           | Research and Entrepreneurship | FUN-12            | 3     | 3       | €123.000        |
| SOFT-23          | INTEGRATIVE PROJECT III       | SOFT-17   SOFT-22 | 8     | 5       | €314.000        |
| ELEC 2           | Elective II                   |                   | 4     | 4       | €189.000        |
|                  | <b>ENROLLMENT</b>             |                   |       |         | <b>€89.000</b>  |
|                  | <b>TECNO FEE</b>              |                   |       |         | <b>€19.500</b>  |
|                  | <b>SUBTOTAL</b>               |                   |       |         | <b>€895.500</b> |

|                      |  |  |  |  |                   |
|----------------------|--|--|--|--|-------------------|
| <b>TOTAL PROGRAM</b> |  |  |  |  | <b>€7.882.500</b> |
| <b>TOTAL CREDITS</b> |  |  |  |  | <b>141</b>        |
| <b>TOTAL COURSES</b> |  |  |  |  | <b>43</b>         |

| Electiv: 1                                | Electiv: 2                                                |
|-------------------------------------------|-----------------------------------------------------------|
| SINT-06 Fundamentals of Machine Learning  | SINT-05 Artificial Intelligence Modeling and Architecture |
| SOFT-24 Test Automation                   | SOFT-26 Software Quality Standards and Metrics            |
| SOFT-25 Distributed Software Architecture | SOFT-27 Blockchain Software Development                   |

## IMPORTANT NOTE

This document has no legal value. If the interested party requires an official document, they must formally request a certificate or certification from the University.

Bachelor's and Master's programs are exempt from VAT collection.

Current prices, subject to change without prior notice.



Academic Registry Office

[www.ucenfotec.ac.cr](http://www.ucenfotec.ac.cr)  
[info@ucenfotec.ac.cr](mailto:info@ucenfotec.ac.cr)

Telephone: **4000 3950**  
**6000 8050**



@UCenfotec