LAUREA MAGISTRALE IN INFORMATICA – Classe LM – 18

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| **Curriculum: Resilient and Secure Cyber Physical Systems - COORTE 2021-22** | | | | |  |
| ***Tipologia Attività* *formativa*** | ***INSEGNAMENTO*** | ***CFU*** | | ***SSD moduli o corso*** | ***ANNO*** |
| **1) Attività formative caratterizzanti curriculari** (60 CFU, 8 insegnamenti) | Advanced techniques (and tools) for software development | **9** | 9 | INF 01 | I |
| ~~Distributed real time Cyber Physical Systems (of Systems)~~ | **~~9~~** | ~~9~~ | ~~INF 01~~ | ~~I~~ |
| Architecture, Model and Analysis of Cyber Physical Systems | **12** | 12 | INF 01 | I |
| Security Engineering | **9** | 9 | INF 01 | II |
| Distributed programming for IoT | **6** | 6 | INF 01 | I |
| ~~Quantitative Analysis of Systems~~ | **~~9~~** | ~~9~~ | ~~INF 01~~ | ~~I~~ |
| Resiliency, real time and certification | **6** | 6 | INF 01 | I |
| ~~Quality and certification~~ | **~~6~~** | 18 | ~~INF 01~~ | ~~I~~ |
| Data Collection and Machine Learning for Critical Cyber-Physical Systems | **6** | INF 01 | I |
| Computer Science Education | **6** | INF 01 | I |
|  | Algorithms and Programming for Massive Data | **6** | INF 01 | II |
|  | Cyber Security and ICT policies | **6** | INF 01 | II |
|  | Architectures and methods for Software Engineering | **6** | ING-INF 05 | I |
|  | Software Dependabily | **6** | ING-INF 05 | I |
|  | Penetration Testing | **6** | INF 01 | II |
|  | Computer Forensics | **6** | INF 01 | I |
| **2) Attività formative affini o integrative** *(art.10, comma 5, lett. b)*  (18 CFU, 3 insegnamenti) | Un corso a scelta tra:  Statistical Inference  Multivariate analysis and statistical learning | **6** | 6 | SECS-S 01 | II  I |
|  | Secure Wireless And Mobile Networks | **6** | 6 | ING-INF 03 | II |
|  | Un corso a scelta tra:  Advanced Numerical Analysis  Approximation Methods  Elements of Numerical Calculus  Stochastic processes | **6** | 6 | MAT 08  MAT 08  MAT 08  MAT 06 | I  I  I  II |
|  |  |  |  | II |
| **3) Attività formative a scelta autonoma** *(art.10, comma 5, lett. a)* | (**12 CFU a scelta** per n.ro **1 esami**) | **12** | 12 | Secondo anno | II |
| **4) Prova finale ed altre attività** *(art.10, comma 5, lett. c)* | Prova finale: sviluppo lavoro di tesi  Prova finale | **24**  **3** | 24  3 | Secondo anno | II |
| **5) Ulteriori attività formative** *(art.10, comma 5, lett. d)* | Attività di approfondimento | **3** | 3 | Secondo anno | II |

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| **Curriculum: Data Science - COORTE 2021/22** | | | | |  |
| ***Tipologia Attività formativa*** | ***INSEGNAMENTO*** | ***CFU*** | | ***SSD*** | ***ANNO*** |
| **1) Attività formative caratterizzanti curriculari** (54 CFU 7 insegnamenti) | Algorithms and Programming for Massive Data | **6** | 6 | INF 01 | I |
| Data Mining and Organization | **12** | 12 | INF 01 | I |
|  | Data Security and Privacy | **9** | 9 | INF 01 | I |
|  | Machine Learning | **9** | 9 | ING-INF 05 | II |
|  | Parallel Computing | **6** | 6 | ING-INF 05 | I |
|  | Advanced Programming Techniques (\*) | **6** | 12 | INF 01 | I |
|  | Computer Forensics (\*) | **6** | I |
|  | Analysis of Algorithms and Data Structures | **6** | ~~II~~  I |
|  | Data Warehousing | **6** | I |
|  | Computer Science Education | **6** | I |
|  | Distributed programming for IoT (\*) | **6** | I |
|  | Information Retrieval and Semantic Web Technologies | **6** | I |
|  | Web Mining | **6** | II |
| **2) Attività formative affini o integrative** *(art.10, comma 5, lett. b)* (24 CFU; 4 insegnamenti) | Advanced Statistical Models – Mod. A | **6** | 6 | SECS-S 01 | I |
| Un corso a scelta tra:  Bayesian Statistics  Multivariate Analysis and Statistical Learning | **6** | 6 | SECS-S 01 | II |
| Un corso a scelta tra:  Advanced Statistical Models – Mod. B  Introduction to Statistical Modelling  Statistics for Spatial Data | **6** | **6** | SECS-S 01 |  |
| I |
| I |
| II |
| Un corso a scelta tra:  Fundamentals of Operational Research  Optimization Methods  Optimization of Complex Systems | MAT 09 |  |
| I |
| I |
| I |
| Stochastic processes | MAT 06 | II |
| Un corso a scelta tra:  Elements of Numerical Calculus  Numerical Methods for Graphics | **6** | 6 | MAT 08 |  |
| I |
| I |
| **3) Attività formative a scelta autonoma** *(art.10, comma 5, lett. a)* | (**12 CFU a scelta** per n.ro **1 esami**) | **12** | **12** |  | II |
| **4) Prova finale ed altre attività** *(art.10, comma 5, lett. c)* | Prova finale: sviluppo lavoro di tesi | **24** | 24 |  | II |
| Prova finale | **3** | 3 |  | II |
| **5) Ulteriori attività formative** *(art.10, comma 5, lett. d)* | Attività di approfondimento | **3** | 3 |  | II |

**(\*) corsi dell'altro curriculum**