## COURSE: Introduction to Mathematics for Economics

| DEGREE: Economics | YEAR: 10 | TERM: 10 |
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| WEEKLY PLANNING |  |  |  |  |  |  |  |  |
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| wEEK | $\begin{aligned} & \text { S } \\ & \text { E } \\ & \text { S } \\ & \text { S } \\ & 1 \\ & \text { } \end{aligned}$ | description | TEACHING (mark X) |  | SPECIAL ROOM FOR SESION (computer classroom, audio-visual classroom...) | WEEKLY PROGRAMMING FOR STUDENT |  |  |
|  |  |  |  | S E M I N A R S |  | DESCRIPTION | CLASS HOURS | HOMEWORK HOURS (Max. Estim. 3,25h) |
| 1 | 1 | Real umbers: inequalities, intervals and absolute value. General properties of functions. | X |  |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 2 | 2 | Exercises of inequalities resolution and representation of functions. |  | X |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 3 | 3 | Functions: general properties (continued). Limits, continuity and asymptotes. | X |  |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 4 | 4 | Representation of functions and calculation of limits. |  | X |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 5 | 5 | Global continuity: zeros and global extremes of a function. | X |  |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 6 | 6 | Approximate solution of equations. Distinction between maximum and maximizers. |  | X |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 7 | 7 | Geometric meaning and calculation of derivatives. | X |  |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 8 | 8 | Exercises of derivative calculation. |  | X |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 9 | 9 | Monotony and derivative: Lagrange's mean value theorem. | X |  |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |


| WEEKLY PLANNING |  |  |  |  |  |  |  |  |
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|  |  |  | TEACHING <br> (mark X) |  | SPECIAL ROOM <br> FOR SESION (computer classroom, audio-visual classroom...) | WEEKLY PROGRAMMING FOR STUDENT |  |  |
| W E E K | $\begin{aligned} & \text { E } \\ & \mathrm{S} \\ & \mathrm{~S} \\ & \mathrm{I} \\ & \mathrm{O} \\ & \mathrm{~N} \end{aligned}$ | DESCRIPTION | L E C T U R E S | $\begin{gathered} \mathrm{S} \\ \mathrm{E} \\ \mathrm{M} \\ \mathrm{I} \\ \mathrm{~N} \\ \mathrm{~A} \\ \mathrm{R} \\ \mathrm{~S} \end{gathered}$ |  | DESCRIPTION | CLASS HOURS | HOMEWORK HOURS (Max. Estim. $3,25 h$ ) |
| 10 | 10 | Exercises of maximum and minimum calculation. |  | X |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 11 | 11 | L'Hopital's rule and Taylor's theorem. | X |  |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 12 | 12 | Exercises of calculus of limits and local representation of functions. |  | X |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 13 | 13 | Concavity , convexity and inflection points. | X |  |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
| 14 | 14 | Exercises of global representation of functions. |  | X |  | Reading class notes and solving assigned problems. | 1,5 | 3,25 |
|  |  |  |  |  |  | Subtotal 1 | 21 | 46 |
|  |  |  |  |  |  | Total 1 (Hours of class plus student homework) |  |  |


| 15 | Tutorials, handing in, etc | X |  | 1,8 | - |
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| 16 | Assessment |  |  | 3 | 4 |
| 17 |  |  |  |  |  |
| 18 |  |  |  |  |  |
| Subtotal 2 |  |  |  | 4,8 | 4 |
| Total 2 (Hours of class plus student homework) |  |  |  | 9 |  |

