

## ALESSANDRO VOLTA TECHNICAL SECONDARY SCHOOL

Via Assisana 40E

Loc. Piscille 06135 Perugia

ITALY

| Switchboard    | Fax            | Website  | School email   | Principal's email  | Office email   |
|----------------|----------------|--|--|--|--|
| 0039 075 31045 | 0039 075 31046 | <a href="http://www.avolta.pg.it">www.avolta.pg.it</a> | <a href="mailto:pgtf010005@istruzione.it">pgtf010005@istruzione.it</a> | <a href="mailto:dirigente@a.volta.pg.it">dirigente@a.volta.pg.it</a> | <a href="mailto:voltauffici@tin.it">voltauffici@tin.it</a> |

The school has about 1,600 students aged 14-19 and 211 teachers, as well as 12 office personnel, 12 laboratory and technical assistants, and 25 auxiliary staff. The school year begins early in September and ends in mid-June with a two-week break over Christmas and the New Year, around a week at Easter and also several religious and public holidays throughout the year. There is an approximately 3-month summer holiday period from mid-June to early September for those students who are not taking their final examinations. Lessons begin at 8.05 a.m. and finish at 12.50 or 13.40 p.m., Monday to Saturday. Students of the final year have afternoon classes on Friday and no lessons on Saturday.

The school is situated on the outskirts of Perugia and can be reached by train or bus from Perugia itself or from the surrounding towns. The students who choose ITTS A. Volta are interested in receiving a solid technical as well as a basic general grounding so that, at the end of their course, they can either enter the workforce or else continue their studies at tertiary level. The course of study is made up of a basic two-year junior high school course after which, at age 16, students may leave formal education, or else continue for another three years. The great majority of students complete the five-year course which comprises specializations in Industrial Chemistry, Electronics and Electrical Studies, ITC and Telecommunications, Mechanics and Mechatronics, Graphics and Communication, and Transport and Logistics. About 70% of graduates choose to work as soon as they finish school while 30% attend university or specialist tertiary courses. Their technical diploma allows them to enter any university faculty of their choice, attend specialized post-secondary training courses, join the general workforce, enroll in the register of technical experts after a two-year period of practical experience, or work as laboratory assistants or technical aids in secondary schools.

## MECHANICS, MECHATRONICS AND ENERGY

| MECHANICS AND MECHATRONICS                                   |                    |    |                                    |    |    |
|--|--------------------|----|------------------------------------|----|----|
| SUBJECTS   | LESSONS PER WEEK   |    |                                    |    |    |
|  | First 2-year block |    | Second 2-year block and final year |    |    |
|  | 1^                 | 2^ | 3^                                 | 4^ | 5^ |
| Italian language and literature                              | 4                  | 4  | 4                                  | 4  | 4  |
| English  | 3                  | 3  | 3                                  | 3  | 3  |
| History  | 2                  | 2  | 2                                  | 2  | 2  |
| Mathematics  | 4                  | 4  | 3                                  | 4  | 3  |
| Law and Economics  | 2                  | 2  | 1                                  |    |    |
| Science: Earth Science and Biology                           | 2                  | 2  |                                    |    |    |
| Geography  | 1                  |    |                                    |    |    |
| Physical Education   | 2                  | 2  | 2                                  | 2  | 2  |
| Roman Catholic religious instruction or alternative activity | 1                  | 1  | 1                                  | 1  | 1  |
| Physics  | 3                  | 3  |                                    |    |    |
| Physics with technical assistant present                     | 1                  |    |                                    |    |    |
| Chemistry  | 3                  | 3  |                                    |    |    |
| Chemistry with technical assistant present                   | 1                  |    |                                    |    |    |
| Technical Drawing  | 3                  | 3  |                                    |    |    |
| Technical Drawing with technical assistant present           | 1                  |    |                                    |    |    |
| Computer Science   | 3                  |    |                                    |    |    |
| Computer Science with technical assistant present            | 2                  |    |                                    |    |    |
| Applied science and Technology                               |                    | 3  |                                    |    |    |
| Mechanics and Energy   |                    |    |                                    |    |    |
| Automated systems  |                    |    | 4                                  | 3  | 3  |
| Processes, products and mechanical technology                |                    |    | 5                                  | 5  | 5  |
| Industrial Organization                                      |                    |    | 3                                  | 4  | 5  |

| ENERGY   |                    |    |                                    |    |    |
|--|--------------------|----|------------------------------------|----|----|
| SUBJECTS   | LESSONS PER WEEK   |    |                                    |    |    |
|  | First 2-year block |    | Second 2-year block and final year |    |    |
|  | 1^                 | 2^ | 3^                                 | 4^ | 5^ |
| Italian language and literature                              | 4                  | 4  | 4                                  | 4  | 4  |
| English  | 3                  | 3  | 3                                  | 3  | 3  |
| History  | 2                  | 2  | 2                                  | 2  | 2  |
| Mathematics  | 4                  | 4  | 3                                  | 4  | 3  |
| Law and Economics  | 2                  | 2  | 1                                  |    |    |
| Science: Earth Science and Biology                           | 2                  | 2  |                                    |    |    |
| Geography  | 1                  |    |                                    |    |    |
| Physical Education   | 2                  | 2  | 2                                  | 2  | 2  |
| Roman Catholic religious instruction or alternative activity | 1                  | 1  | 1                                  | 1  | 1  |
| Physics  | 3                  | 3  |                                    |    |    |
| Physics with technical assistant present                     | 1                  |    |                                    |    |    |
| Chemistry  | 3                  | 3  |                                    |    |    |
| Chemistry with technical assistant present                   | 1                  |    |                                    |    |    |
| Technical Drawing  | 3                  | 3  |                                    |    |    |
| Technical Drawing with technical assistant present           | 1                  |    |                                    |    |    |
| Computer Science   | 3                  |    |                                    |    |    |
| Computer Science with technical assistant present            | 2                  |    |                                    |    |    |
| Applied Science and Technology                               |                    | 3  |                                    |    |    |
| Mechanics and Energy   |                    |    | 5                                  | 5  | 5  |
| Automated Systems  |                    |    | 4                                  | 4  | 4  |
| Processes, Products and Mechanical Technology                |                    |    | 4                                  | 2  | 2  |
| Energy Systems Design  |                    |    | 3                                  | 5  | 6  |

## CHEMISTRY AND BIOTECHNOLOGY

| CHEMISTRY AND MATERIALS                                      |                    |                |                                    |                |                |
|--|--------------------|----------------|------------------------------------|----------------|----------------|
| SUBJECTS   | LESSONS PER WEEK   |                |                                    |                |                |
|  | First 2-year block |                | Second 2-year block and final year |                |                |
|  | 1 <sup>^</sup>     | 2 <sup>^</sup> | 3 <sup>^</sup>                     | 4 <sup>^</sup> | 5 <sup>^</sup> |
| Italian language and literature                              | 4                  | 4              | 4                                  | 4              | 4              |
| English  | 3                  | 3              | 3                                  | 3              | 3              |
| History  | 2                  | 2              | 2                                  | 2              | 2              |
| Mathematics  | 4                  | 4              | 3                                  | 4              | 3              |
| Law and Economy  | 2                  | 2              | 1                                  |                |                |
| Science: Earth Science and Biology                           | 2                  | 2              |                                    |                |                |
| Geography  | 1                  |                |                                    |                |                |
| Physical Education   | 2                  | 2              | 2                                  | 2              | 2              |
| Roman Catholic religious instruction or alternative activity | 1                  | 1              | 1                                  | 1              | 1              |
| Physics  | 3                  | 3              |                                    |                |                |
| Physics with present technical assistant                     | 1                  |                |                                    |                |                |
| Chemistry  | 3                  | 3              |                                    |                |                |
| Chemistry with technical assistant present                   | 1                  |                |                                    |                |                |
| Technical Drawing  | 3                  | 3              |                                    |                |                |
| Technical Drawing with technical assistant present           | 1                  |                |                                    |                |                |
| Computer Science   | 3                  |                |                                    |                |                |
| Computer Science with technical assistant present            | 2                  |                |                                    |                |                |
| Applied Science and Technology                               |                    | 3              |                                    |                |                |
| Analytical Chemistry   |                    |                |                                    |                |                |
| Organic Chemistry and Biochemistry                           |                    |                | 5                                  | 5              | 3              |
| Industrial Chemistry Technology                              |                    |                | 4                                  | 5              | 6              |

| ENVIRONMENTAL BIOTECHNOLOGY                                  |                    |    |                                    |    |    |
|--|--------------------|----|------------------------------------|----|----|
| SUBJECTS   | LESSONS PER WEEK   |    |                                    |    |    |
|  | First 2-year block |    | Second 2-year block and final year |    |    |
|  | 1^                 | 2^ | 3^                                 | 4^ | 5^ |
| Italian language and literature                              | 4                  | 4  | 4                                  | 4  | 4  |
| English  | 3                  | 3  | 3                                  | 3  | 3  |
| History  | 2                  | 2  | 2                                  | 2  | 2  |
| Mathematics  | 4                  | 4  | 3                                  | 4  | 3  |
| Law and Economy  | 2                  | 2  | 1                                  |    |    |
| Science: Earth Science and Biology                           | 2                  | 2  |                                    |    |    |
| Geography  | 1                  |    |                                    |    |    |
| Physical Education   | 2                  | 2  | 2                                  | 2  | 2  |
| Roman Catholic religious instruction or alternative activity | 1                  | 1  | 1                                  | 1  | 1  |
| Physics  | 3                  | 3  |                                    |    |    |
| Physics with technical assistant present                     | 1                  |    |                                    |    |    |
| Chemistry  | 3                  | 3  |                                    |    |    |
| Chemistry with technical assistant present                   | 1                  |    |                                    |    |    |
| Technical Drawing  | 3                  | 3  |                                    |    |    |
| Technical Drawing with technical assistant present           | 1                  |    |                                    |    |    |
| Computer Science   | 3                  |    |                                    |    |    |
| Computer Science with technical assistant present            | 2                  |    |                                    |    |    |
| Applied Science and Technology                               |                    | 3  |                                    |    |    |
| Analytical Chemistry   |                    |    |                                    |    |    |
| Organic Chemistry and Biochemistry                           |                    |    | 4                                  | 4  | 4  |
| Biology, Microbiology, Health Inspection                     |                    |    | 6                                  | 6  | 6  |
| Environmental Physics  |                    |    | 2                                  | 2  | 3  |

## ELECTRONICS AND ELECTRICAL STUDIES

| ELECTRONICS AND ELECTRICAL STUDIES                           |                    |    |                                    |    |    |
|--|--------------------|----|------------------------------------|----|----|
| SUBJECTS   | LESSONS PER WEEK   |    |                                    |    |    |
|  | First 2-year block |    | Second 2-year block and final year |    |    |
|  | 1^                 | 2^ | 3^                                 | 4^ | 5^ |
| Italian language and literature                              | 4                  | 4  | 4                                  | 4  | 4  |
| English  | 3                  | 3  | 3                                  | 3  | 3  |
| History  | 2                  | 2  | 2                                  | 2  | 2  |
| Mathematics  | 4                  | 4  | 3                                  | 4  | 3  |
| Law and Economy  | 2                  | 2  | 1                                  |    |    |
| Science: Earth Science and Biology                           | 2                  | 2  |                                    |    |    |
| Geography  | 1                  |    |                                    |    |    |
| Physical Education   | 2                  | 2  | 2                                  | 2  | 2  |
| Roman Catholic religious instruction or alternative activity | 1                  | 1  | 1                                  | 1  | 1  |
| Physics  | 3                  | 3  |                                    |    |    |
| Physics with technical assistant present                     | 1                  |    |                                    |    |    |
| Chemistry  | 3                  | 3  |                                    |    |    |
| Chemistry with technical assistant present                   | 1                  |    |                                    |    |    |
| Technical Drawing  | 3                  | 3  |                                    |    |    |
| Technical Drawing with technical assistant present           | 1                  |    |                                    |    |    |
| Computer Science   | 3                  |    |                                    |    |    |
| Computer Science with technical assistant present            | 2                  |    |                                    |    |    |
| Applied Science and Technology                               |                    | 3  |                                    |    |    |
| Robotics   |                    |    |                                    |    |    |
| Electrical wiring technology and design                      |                    |    | 5                                  | 4  | 5  |
| Electronics and Electrical Studies                           |                    |    | 7                                  | 6  | 6  |
| Automated systems  |                    |    | 4                                  | 4  | 4  |

| AUTOMATION   |                    |    |                                    |    |    |
|--|--------------------|----|------------------------------------|----|----|
| SUBJECTS   | LESSONS PER WEEK   |    |                                    |    |    |
|  | First 2-year block |    | Second 2-year block and final year |    |    |
|  | 1^                 | 2^ | 3^                                 | 4^ | 5^ |
| Italian language and literature                              | 4                  | 4  | 4                                  | 4  | 4  |
| English  | 3                  | 3  | 3                                  | 3  | 3  |
| History  | 2                  | 2  | 2                                  | 2  | 2  |
| Mathematics  | 4                  | 4  | 3                                  | 4  | 3  |
| Law and Economy  | 2                  | 2  |                                    |    |    |
| Science: Earth Science and Biology                           | 2                  | 2  |                                    |    |    |
| Geography  | 1                  |    |                                    |    |    |
| Physical Education   | 2                  | 2  | 2                                  | 2  | 2  |
| Roman Catholic religious instruction or alternative activity | 1                  | 1  | 1                                  | 1  | 1  |
| Physics  | 3                  | 3  |                                    |    |    |
| Physics with technical assistant present                     | 1                  |    |                                    |    |    |
| Chemistry  | 3                  | 3  |                                    |    |    |
| Chemistry with technical assistant present                   | 1                  |    |                                    |    |    |
| Technical Drawing  | 3                  | 3  |                                    |    |    |
| Technical Drawing with technical assistant present           | 1                  |    |                                    |    |    |
| Computer Science   | 3                  |    |                                    |    |    |
| Computer Science with technical assistant present            | 2                  |    |                                    |    |    |
| Applied Science and Technology                               |                    | 3  |                                    |    |    |
| PLC  |                    |    |                                    |    |    |
| Electrical installation technology and design                |                    |    | 5                                  | 5  | 5  |
| Electronics and Electrical Studies                           |                    |    | 7                                  | 5  | 5  |
| Automated systems  |                    |    | 4                                  | 4  | 5  |

COMPUTER SCIENCE AND TELECOMMUNICATIONS

| COMPUTER SCIENCE   |                    |    |                                    |    |    |
|--|--------------------|----|------------------------------------|----|----|
| SUBJECTS   | LESSONS PER WEEK   |    |                                    |    |    |
|  | First 2-year block |    | Second 2-year block and final year |    |    |
|  | 1^                 | 2^ | 3^                                 | 4^ | 5^ |
| Italian language and literature                              | 4                  | 4  | 4                                  | 4  | 4  |
| English  | 3                  | 3  | 3                                  | 3  | 3  |
| History  | 2                  | 2  | 2                                  | 2  | 2  |
| Mathematics  | 4                  | 4  | 3                                  | 4  | 3  |
| Law and Economy  | 2                  | 2  |                                    |    |    |
| Science: Earth Science and Biology                           | 2                  | 2  |                                    |    |    |
| Geography  | 1                  |    |                                    |    |    |
| Physical Education   | 2                  | 2  | 2                                  | 2  | 2  |
| Roman Catholic religious instruction or alternative activity | 1                  | 1  | 1                                  | 1  | 1  |
| Physics  | 3                  | 3  |                                    |    |    |
| Physics with technical assistant present                     | 1                  |    |                                    |    |    |
| Chemistry  | 3                  | 3  |                                    |    |    |
| Chemistry with technical assistant present                   | 1                  |    |                                    |    |    |
| Technical Drawing  | 3                  | 3  |                                    |    |    |
| Technical Drawing with technical assistant present           | 1                  |    |                                    |    |    |
| Computer Science   | 3                  |    |                                    |    |    |
| With computer science technician present                     | 2                  |    |                                    |    |    |
| Applied Science and Technology                               |                    | 3  |                                    |    |    |
| Network systems  |                    |    | 4                                  | 4  | 4  |
| Programming Technologies                                     |                    |    | 3                                  | 3  | 4  |
| Business planning and management                             |                    |    |                                    |    | 3  |
| Computer Programming   |                    |    | 6                                  | 6  | 6  |
| Telecommunications   |                    |    | 3                                  | 3  |    |
|  |                    |    |                                    |    |    |

| 1 TELECOMMUNICATIONS   |                    |    |                                    |    |    |   |
|--|--------------------|----|------------------------------------|----|----|---|
| SUBJECTS   | LESSONS PER WEEK   |    |                                    |    |    |   |
|  | First 2-year block |    | Second 2-year block and final year |    |    |   |
|  | 1^                 | 2^ | 3^                                 | 4^ | 5^ |   |
| Italian language and literature                              | 4                  | 4  | 4                                  | 4  | 4  |   |
| English  | 3                  | 3  | 3                                  | 3  | 3  |   |
| History  | 2                  | 2  | 2                                  | 2  | 2  |   |
| Mathematics  | 4                  | 4  | 3                                  | 4  | 3  |   |
| Law and Economy  | 2                  | 2  |                                    |    |    |   |
| Science: Earth Science and Biology                           | 2                  | 2  |                                    |    |    |   |
| Geography  | 1                  |    |                                    |    |    |   |
| Physical Education   | 2                  | 2  | 2                                  | 2  | 2  |   |
| Roman Catholic religious instruction or alternative activity | 1                  | 1  | 1                                  | 1  | 1  |   |
| Physics  | 3                  | 3  |                                    |    |    |   |
| Physics with technical assistant present                     | 1                  |    |                                    |    |    |   |
| Chemistry  | 3                  | 3  |                                    |    |    |   |
| Chemistry with technical assistant present                   | 1                  |    |                                    |    |    |   |
| Technical Drawing  | 3                  | 3  |                                    |    |    |   |
| Technical Drawing with technical assistant present           | 1                  |    |                                    |    |    |   |
| Computer Science   | 3                  |    |                                    |    |    |   |
| With computer science technician present                     | 2                  |    |                                    |    |    |   |
| Applied Science and Technology                               |                    | 3  |                                    |    |    |   |
| Network systems  |                    |    |                                    |    |    | 4 |
| Programming Technologies                                     |                    |    | 3                                  | 3  | 4  |   |
| Business planning and management                             |                    |    |                                    |    |    | 3 |
| Computer Programming   |                    |    | 3                                  | 3  |    |   |
| Telecommunications   |                    |    |                                    |    | 6  | 6 |



TRANSPORT AND LOGISTICS

**CONSTRUCTION**

|  | LESSONS PER WEEK                     |    |                     |          |    |
|--|--------------------------------------|----|---------------------|----------|----|
|  | First 2-year block                   |    | Second 2-year block | 5th year |    |
|  | Second two-year block and final year |    |                     |          |    |
|  | 1^                                   | 2^ | 3^                  | 4^       | 5^ |
| Italian language and literature                              | 4                                    | 4  | 4                   | 4        | 4  |
| English  | 3                                    | 3  | 3                   | 3        | 3  |
| History  | 2                                    | 2  | 2                   | 2        | 2  |
| Mathematics  | 4                                    | 4  | 3                   | 4        | 3  |
| Law and Economy  | 2                                    | 2  |                     |          |    |
| Science: Earth Science and Biology                           | 2                                    | 2  |                     |          |    |
| Geography  | 1                                    |    |                     |          |    |
| Physical Education   | 2                                    |    |                     |          |    |
| Roman Catholic religious instruction or alternative activity | 1                                    | 1  | 1                   | 1        | 1  |
| Physics  | 3                                    | 3  |                     |          |    |
| Physics with technical assistant present                     | 1                                    |    |                     |          |    |
| Chemistry  | 3                                    | 3  |                     |          |    |
| Chemistry with technical assistant present                   | 1                                    |    |                     |          |    |
| Technical Drawing  | 3                                    | 3  |                     |          |    |
| Technical Drawing with technical assistant present           | 1                                    |    |                     |          |    |
| Computer Science   | 3                                    |    |                     |          |    |
| With computer science technician present                     | 2                                    |    |                     |          |    |
| Applied Science and Technology                               |                                      | 3  |                     |          |    |
| Electrical Studies, Electronics and Automation               |                                      |    | 3                   | 3        | 3  |
| Law and Economy  |                                      |    | 2                   | 2        | 2  |
| Construction Systems   |                                      |    | 5                   | 5        | 8  |
| Mechanics and Means of Propulsion                            |                                      |    | 3                   | 3        | 4  |
| Logistics  |                                      |    | 3                   | 3        |    |

**TRANSPORT AND LOGISTICS**

**LOGISTICS**

| SUBJECT  | LESSONS PER WEEK                   |    |                     |          |    |
|--|------------------------------------|----|---------------------|----------|----|
|  | First 2-year block                 |    | Second 2-year block | 5th year |    |
|  | Second two-year block and 5th year |    |                     |          |    |
|  | 1^                                 | 2^ | 3^                  | 4^       | 5^ |
| Italian language and literature                              | 4                                  | 4  | 4                   | 4        | 4  |
| English  | 3                                  | 3  | 3                   | 3        | 3  |
| History  | 2                                  | 2  | 2                   | 2        | 2  |
| Mathematics  | 4                                  | 4  | 3                   | 4        | 3  |
| Law and Economy  | 2                                  | 2  |                     |          |    |
| Science: Earth Science and Biology                           | 2                                  | 2  |                     |          |    |
| Geography  | 1                                  |    |                     |          |    |
| Physical Education   | 2                                  | 2  | 2                   | 2        | 2  |
| Roman Catholic religious instruction or alternative activity | 1                                  | 1  | 1                   | 1        | 1  |
| Physics  | 3                                  | 3  |                     |          |    |
| Physics with technical assistant present                     | 1                                  |    |                     |          |    |
| Chemistry  | 3                                  | 3  |                     |          |    |
| Chemistry with technical assistant present                   | 1                                  |    |                     |          |    |
| Technical Drawing  | 3                                  | 3  |                     |          |    |
| Technical Drawing with technical assistant present           | 1                                  |    |                     |          |    |
| Computer Science   | 3                                  |    |                     |          |    |
| With computer science technician present                     | 2                                  |    |                     |          |    |
| Applied Science and Technology                               |                                    | 3  |                     |          |    |
| Electrical Studies, Electronics and Automation               |                                    |    |                     |          |    |
| Law and Economy  |                                    |    | 2                   | 2        | 2  |
| Navigation Science   |                                    |    | 3                   | 3        | 3  |
| Mechanics and Machinery                                      |                                    |    | 3                   | 3        | 3  |
| Logistics  |                                    |    | 5                   | 5        | 6  |

## GRAPHICS AND COMMUNICATION

### Graphics and Communication

| SUBJECTS   | LESSONS PER WEEK                   |                |                     |                |                |   |
|--|------------------------------------|----------------|---------------------|----------------|----------------|---|
|  | First 2-year block                 |                | Second 2-year block |                | 5th year       |   |
|  | Second two-year block and 5th year |                |                     |                |                |   |
|  | 1 <sup>^</sup>                     | 2 <sup>^</sup> | 3 <sup>^</sup>      | 4 <sup>^</sup> | 5 <sup>^</sup> |   |
| Italian language and literature                              | 4                                  | 4              | 4                   | 4              | 4              |   |
| English  | 3                                  | 3              | 3                   | 3              | 3              |   |
| History  | 2                                  | 2              | 2                   | 2              | 2              |   |
| Mathematics  | 4                                  | 4              | 3                   | 4              | 3              |   |
| Law and Economy  | 2                                  | 2              | 1                   |                |                |   |
| Science: Earth Science and Biology                           | 2                                  | 2              |                     |                |                |   |
| Geography  | 1                                  |                |                     |                |                |   |
| Physical Education   | 2                                  | 2              | 2                   | 2              | 2              |   |
| Roman Catholic religious instruction or alternative activity | 1                                  | 1              | 1                   | 1              | 1              |   |
| Physics  | 3                                  | 3              |                     |                |                |   |
| Physics with technical assistant present                     | 1                                  |                |                     |                |                |   |
| Chemistry  | 3                                  | 3              |                     |                |                |   |
| Chemistry with technical assistant present                   | 1                                  |                |                     |                |                |   |
| Technical Drawing  | 3                                  | 3              |                     |                |                |   |
| Technical Drawing with technical assistant present           | 1                                  |                |                     |                |                |   |
| Computer Science   | 3                                  |                |                     |                |                |   |
| With computer science technician present                     | 1                                  |                |                     |                |                |   |
| Applied Science and Technology                               |                                    | 3              |                     |                |                |   |
| Communication Theory   |                                    |                |                     |                |                | 2 |
| Multimedia Design  |                                    |                | 4                   | 3              | 4              |   |
| Production Processes Technology                              |                                    |                | 4                   | 4              | 3              |   |
| Production Process Organisation and Management               |                                    |                |                     |                |                | 4 |
| Technical Laboratories                                       |                                    |                | 6                   | 6              | 6              |   |

## GRAPHICS AND COMMUNICATION

### Graphics and Communication – Sport flexibility

| SUBJECTS   | LESSONS PER WEEK                   |    |                     |    |          |
|--|------------------------------------|----|---------------------|----|----------|
|  | First 2-year block                 |    | Second 2-year block |    | 5th year |
|  | Second two-year block and 5th year |    |                     |    |          |
|  | 1^                                 | 2^ | 3^                  | 4^ | 5^       |
| Italian language and literature                              | 4                                  | 4  | 4                   | 4  | 4        |
| English  | 3                                  | 3  | 3                   | 3  | 3        |
| History  | 2                                  | 2  | 2                   | 2  | 2        |
| Mathematics  | 4                                  | 4  | 3                   | 4  | 3        |
| Law and Economy  | 2                                  | 2  | 1                   |    |          |
| Science: Earth Science and Biology                           | 2                                  | 2  |                     |    |          |
| Geography  | 1                                  |    |                     |    |          |
| Physical Education   | 5                                  | 5  | 2                   | 2  | 2        |
| Roman Catholic religious instruction or alternative activity | 1                                  | 1  | 1                   | 1  | 1        |
| Physics  | 2                                  | 3  |                     |    |          |
| Physics with technical assistant present                     | 1                                  |    |                     |    |          |
| Chemistry  | 2                                  | 3  |                     |    |          |
| Chemistry with technical assistant present                   | 1                                  |    |                     |    |          |
| Technical Drawing  | 3                                  | 3  |                     |    |          |
| Technical Drawing with technical assistant present           | 1                                  |    |                     |    |          |
| Computer Science   | 2                                  |    |                     |    |          |
| With computer science technician present                     | 1                                  |    |                     |    |          |
| Applied Science and Technology                               |                                    | 3  |                     |    |          |
| Communication Theory   |                                    |    |                     |    |          |
| Multimedia Design  |                                    |    | 4                   | 3  | 4        |
| Production Processes Technology                              |                                    |    | 4                   | 4  | 3        |
| Production Process Organisation and Management               |                                    |    |                     |    | 4        |
| Technical Laboratories                                       |                                    |    | 6                   | 6  | 6        |

## AIMS AND OBJECTIVES

The main purpose of technical education in Italy is to train young people to enter the workforce as professionals, technicians or administrators at middle management level in agriculture, industry, business or the tertiary sector. ITTS A. Volta is an industrial institute, so upon passing the final State examination and obtaining the diploma of Technical Expert in one of the various courses, graduates may then undertake practical work experience and sit a further examination which qualifies them to act as professional consultants and gain enrolment in the official register of their particular field.

The school 's mission is to train professional technicians who are able to act in a wide range of roles in a rapidly changing society, and who possess the following characteristics:

- Versatility and willingness to keep up to date with technological change
- A wide range of competences necessary to keep up with changes in the role of technicians
- The ability to understand the economic scale of technical issues

It is essential to keep abreast of social, economic and technological change, thus reducing the gap between scholastic knowledge and real life situations. Our objectives are:

### WORK EXPERIENCE

Since 1980 periods of contact with local industry have become part of our educational programme. These may take the form of:

visits to local industries (mainly aimed at the younger students)

summer holiday work experience (3-4 weeks, for 3<sup>rd</sup> and 4<sup>th</sup> year students). Students are supervised by a tutor from the school and one from industry and are assessed by the industry tutor on the competences acquired during the work period. The students keep a log-book, which is evaluated by the school.

Internship periods (the first two weeks of June for students of year 3 and four weeks in September for students of years 4 and 5)

## COACHING, REVISION AND SUPPORT

It is the school's belief that every student should be given the opportunity to complete his or her studies successfully. Therefore every effort is made to intervene immediately to prevent academic failure, loss of self-esteem, waning interest, boredom and risk of dropout.

The 'ZERO MODULE' in first year classes aims at:

- Smoothing the transition from middle school to secondary school
- Fostering trust and confidence in the school as a place where students may satisfy both their educational needs and their expectations for the future
- Consolidating a solid study method
- Encouraging a sense of belonging and group spirit before beginning the year's work

In this first module each subject teacher introduces or revises :

- the fundamental pre-requisites to begin the course of study, depending on students' background competences and knowledge,
- basic skills such as how to use textbooks, dictionaries, multimedia material, how to take notes, how to organize a notebook, etc.
- study methods, i.e. how to take notes in class and write them up at home, how to approach a written text by pinpointing key words, drawing up tables, charts, mindmaps, and so on

### THE CONSOLIDATION MODULE (2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> years)

This three-week module revises the most important topics from the previous year before beginning new work.

### COACHING AND SUPPORT

When students are unable to cope with the workload or are struggling to keep up, various types of interventions can be undertaken. When students are experiencing slight difficulty, revision lessons may be included in the normal morning work plan, or else extra distance revision work may be set. Where there are more serious problems, extra after-school lessons for individuals or small groups may take place. At the end of the year students who have failed some subjects may be required to attend coaching courses at the end

of June and in mid-August, followed by a formal examination at the end of the month, after which they may be promoted, or may have to repeat the year.

#### THE XENIA PROJECT

This project is aimed at immigrant students in the 14-18 year age group so as to prevent dropout. Recent arrivals attend afterschool classes in small groups where the emphasis is on acquiring the Italian language. Once basic language skills have been acquired, students attend further afterschool classes held by teachers of Italian Language and Literature who provide support for study in all areas.

The school also offers coaching sessions for final year students who are about to sit their final examinations.

#### STUDENTS WITH SPECIAL NEEDS

The school welcomes students with special needs and integrates them into the school community. They attend normal classes where they are assisted by specially trained teachers. The school also organizes information and training courses for subject teachers to facilitate inclusion and acceptance of students with disabilities.

#### THE EUROPEAN DIMENSION

The school encourages an open minded attitude and the awareness that the European dimension will play an increasingly important role in the lives of young people in the future . Various projects are underway at present, or have been successfully completed over the past few years: e-Twinning projects, multilateral Comenius exchanges, Comenius individual mobility exchanges, Comenius language assistant grants, Erasmus plus KA2 school partnerships, on-going group exchanges with Danish, Dutch, Spanish and German schools, an annual intensive English study week in the UK, and school trips to Strasbourg and Brussels, as well as numerous CLIL (Content and Language Integrated Learning) projects within the school.

Well-equipped laboratories, which are also used by local industries for training and updating their personnel, keep students in touch with the world of work. They include Science and Physics labs, Multimedia labs, an Alternative Energy lab, Chemistry, Electronics, Computer Science, and Mechanics labs, CAD-CAM labs, and a Machine Tools workshop. There is also a gymnasium, a library, a Planetarium, a well-equipped recording studio to meet students' musical interests, and a snackbar and canteen.

| LESSON TIMETABLE  |       |       |
|-------------------|-------|-------|
| Monday - Saturday |       |       |
| 1                 | 8.05  | 9.00  |
| 2                 | 9.04  | 9.55  |
| 3                 | 9.59  | 10.50 |
| break             | 10.50 | 11.00 |
| 4                 | 11.00 | 11.50 |
| 5                 | 11.54 | 12.44 |
| 6                 | 12.48 | 13.40 |

## TESTING AND ASSESSMENT

Students are encouraged to recognise their own strong and weak points so as to promote positive self-esteem and awareness of their abilities and competences. They are given clear indications of their initial situation and their rate of progress so that they can monitor their own learning, and profit from staff advice and help. Each subject department defines its own minimum competences, evaluation criteria and type of test items. In April and May the second and fourth-year classes are tested on interdisciplinary competences which integrate testing and assessment in single subject areas.

## ASSESSMENT CALENDAR

|          |                            |   |
|----------|----------------------------|---|
| December | End of term report         | assessment the end of the 1 <sup>st</sup> term (3 months)         |
| March    | Mid-term information sheet | informs parents on their children's learning progress and conduct |
| June     | End of year report         | assessment at the end of the 2 <sup>nd</sup> term (5 months)      |
| August   | Second session exam report | final assessment for students who were not promoted in June       |



## CONDUCT INDICATORS

|    |   |
|----|---|
| 10 | <p>1.polite, propositive, collaborative<br/>                 2. responsible, respects school rules<br/>                 3.sense of duty, can be relied upon to work hard at school and at home</p>  |
| 9  | <p>1.polite and responsible, respects school rules<br/>                 2.sense of duty, can be relied upon to work hard at school and at home</p>  |
| 8  | <p>1.respects school rules, is polite towards classmates, teachers and school personnel in general<br/>                 2.unreliable at times, loses concentration, needs to be verbally reprimanded</p>  |
| 7  | <p>1.Does not always respect school rules, is not always polite to classmates, teachers and school personnel in general, often late, disruptive behaviour, needs frequent reprimands<br/>                 2.Poor sense of duty, unreliable</p>  |
| 6  | <p>1.Inappropriate conduct, does not respect school rules, classmates, teachers or other school personnel, disruptive behavior; official disciplinary measures taken (Article 22 of School Rules), parents informed by official letter<br/>                 2.Little or no study, poor sense of duty</p>  |
| 5  | <p>1. refusal to respect school rules, classmates, teachers or other school personnel; consistently disruptive behavior; official disciplinary measures taken (Article 22 of the School Rules), parents informed by official letter<br/>                 2.no sense of duty, no desire to learn</p> <p>(A conduct mark of 5 in the end-of-year school report or on admission to the final-year examination may be attributed only in cases of suspension for longer than two school weeks.)</p> |