

Pro IT

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Introduction & Context

This is a course intended for all ISP Upper School students. Its primary goal, as the name suggests, is to introduce the students to “pro” apps. This includes everything from 3D design and Games production to programming. And so it will introduce students to the idea of I.T. as a discipline; as something which can lead to post-secondary study of I.T. and even to a professional career in I.T, noting that a full 9% of OECD professionals today work in the I.T. industry.

Though the main thrust of the course is “pro apps”, two other important areas are dealt with. I.T. issues related to appropriate use of computers, along with health issues related to computer use are reinforced. And also, a closer look is taken at some of the software, features, and maintenance considerations of the student Mac laptops.

It should be noted that the more traditional areas of computer instruction, such as the use and integration of spreadsheets and blogs, are amply attended to by teachers at all levels of ISP, through our computer integration and laptop programs.

Objectives of the Course

- 1) To foster the ability in students to learn new technology both on their own, and through collaboration with peers.
- 2) To reinforce appropriate use of technology.
- 3) To introduce Information Technology as a distinct academic (and professional) discipline.

The Three Threads of the Course

There are two minor threads and one major thread to the course. The first thread of the course is called “IT & Me”, and covers a variety of issues related to IT, but primarily centers around health issues and appropriate use. The “My Laptop” thread covers two main areas, How My Laptop Works, and Computer (Software) Maintenance. And making up the bulk of the course is “Pro Apps”. In this stream a variety of professional level computer applications will be introduced to a level that invokes interest.

Course Content

Thread I – I.T. & Me

1. IT Health & Safety
 - a. Hands, Back, Eyes
2. Appropriate Use
 - a. Internet Personal Safety
 - b. Internet Personal Responsibility
 - c. Overuse of Computers & the Internet

Thread II – My Laptop

1. Maintenance
(With “How Computers Work” where needed)
2. Personal Web Publishing *iWeb*

Thread III – Pro Apps

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|----------------------------|---|
| 1. 3D Modeling & Animation | <i>Autodesk Maya</i> |
| 2. Pro Audio Editing | <i>Logic Express</i> |
| 3. Games Production | <i>Flash (with Actionscript)</i>
<i>Unity 3d (with Javascript)</i>
<i>Netbeans, Alice & Minecraft (with Java)</i> |

You’ll note that most of the 70 minute classes will be divided into two approximately 35 minute areas of focus, for the purposes of variety, and to fit a typical student’s attention span.

All of the course material and assignments will be accessed through the course website johnrayworth.info (which may also be linked to from the ISP Stroodle portal).

Lab Computers and Student Laptops

Both lab desktop computers, and students' laptops will be used for this course. For each application and topic, the most appropriate computer will be used – for example, laptops for maintenance of the students' websites, and desktop computers for the heavy duty work of producing and rendering 3D. Approximately half the time the lab desktop machines will be used, about a quarter of the time the student's laptops will be used, and the rest of the time no machines at all will be used; rather, we'll sit around the central tables in the lab and have what I call "live wikis" and "real-time blogs" (i.e. face-to-face discussions and instruction).

What Next, After Pro IT?

This version of the Pro IT course still contains numerous topics within each major stream, and they range widely across many areas of IT. So the course is still very fast-paced, with a lot squeezed into just one semester. Because of this, it is important to note that any given topic may not be taken to the depth a student may wish. Given the limited time, it is hoped that the course will act as a stimulus for students to continue academic pursuit in areas of IT they find interesting. There are two courses that naturally follow on from Pro IT: Game Production, and Motion Graphics. Furthermore, for eleventh and twelfth graders, there is IB Film and IB Computer Science.

Assessment

Breakdown of Grade

~55% Major In-Class Projects

- “Major assignments” are completed based on grade rubrics to be found on the johnrayworth.info website. They take several to many classes to complete.
- “Class work assignments” are assignments usually done within one class period, which will be saved, usually uploaded to your or my website, but which will not be graded according to a structured rubric; these files simply have to be done and saved/uploaded for full value.

~35% Homework Assignments

These are to be uploaded to the johnrayworth.info server by 11 p.m. the night before each class. Occasionally will they take more than 20 minutes, but usually they can be done in around 15 minutes. They are worth 5 marks each, and start around the third week of the course.

There are approximately **28 distinct homework assignments** which are part of this course. The assigning of homework starts approximately two weeks into the semester and ends approximately two weeks from the end of the semester. But during the "homework" core part of the course, homework will be assigned every class except for:

- the class before week-long holidays.
- a "Homework Hiatus" week around the major CEESA competitions week of the semester.
- one or two possible "Mulligan Make-up" homework days.

For **ESL students**, multiple choice homework assignments are optional, but if done, poor grades will be slightly scaled up.

Students receive an **e-mail notification** automatically as soon as the homework is ready and up on the website. On the odd occasion when the homework cannot be posted two days before it is due, a special e-mail will be sent communicating this.

The **rationale** for homework assignments is to have you do material that is better done thoughtfully and undistracted on your own, and for which you do not need the school computers. But a good side effect of daily homework is that once it starts, you'll always know that you do have work for this class, since you always do – outside of guided study week at the end of the year.

If you **miss the homework deadline**, four times during the course you can use what I call a homework “**Mulligan**”. Each Mulligan allows you to upload a completed homework assignment at any time for full value, no questions asked. If you use up all your Mulligans, I'll still accept homework assignments printed out, and will keep them until the end of the semester to use as rationale for bumping your grade up a little if needed to go up to the next highest letter grade.

If you are **away on a trip, or are sick**, you are *not required* to do the homework. *But you are* encouraged to do the assignment when you get back or feel better; the homework assignments are for you and your I.T. knowledge development. You will check the box “SOA” (meaning Sick or Away) when you submit either the completed homework, or the excuse for why you cannot make it up.

10% Class Mark

This a grade calculated twice: in the middle and at the end of the semester.

- on time for class (3%)
- on task during class (3%)
- effort & attitude (4%)

See “Routines & Expectations” on the last page for more details on maintaining the 9/9% that you start with. The majority of students end up with a 10/10 by semester’s end.

General Grading Points

- “When is it due??” The answer to this question for major assignments is “When it’s done.” **But** keep in mind that there is a limit to the amount of class time allotted, so if you are looking to make it perfect, you may have to finish after school. And also note that just before progress reports and parent-teacher-interviews I will want to get things at least preliminarily graded.
- Major assignments will be graded from your website, so it’s important to keep your website properly updated.
- The grades and completed rubrics appear on johnrayworth.info, whereas on PowerSchool it is the final assignment grade only which appears..
- For major assignments the SSAC homework late policy applies.
- The standard set for work in this class is B+; I consider B+ an appropriate reflection of work well done. By the end of the semester B+ is usually the average grade in the class. (In a couple of recent semesters it was actually a bit higher.)
- Assignments and quizzes achieving a grade above B+ will range from slightly above average, all the way up to displaying the exemplary work of an A+ level. Grades in the A range are within the reach of most students. Timely completion of all assignments and homework is central to the goal of achieving such a high grade.
- A grade below B+ on a *completed* assignment or quiz indicates that based on work submitted, and on your own distinct learning style & ability, you can do better.
- Over a grading period, a poor grade in this class usually results from one of two situations. Firstly, several missing homework assignments, which demonstrate the “power of 0” grading dynamic. Secondly, an inability to catch up on major assignments after absence, either due to school trips or illness.
- The computer lab is available every day during breaks, during lunch, and after. So if you are unable to complete assignments during class time, or if you miss one or more classes, you will need to get to the lab during these times to make up work. Of these times, the best for seeking my help is after school.

Routines & Expectations Particular to this Course

- 1) Start of class routine: Chairs adjusted, desktop computers awake, but purple screens, laptops closed.
- 2) During traditional instruction times, and also during discussions, only one person *at a time* talks.
- 3) During step-by-step instruction times, I try not to repeat myself; if you miss something, please look to your neighbor's computer to see what you missed.
- 4) For questions, the best way is to raise your hand, even when everyone is quiet.
- 5) No food, drink (except for water) is allowed in the lab.
- 6) During traditional instructions times, if for a while I'm busy helping someone at their computer, you're free to chat away, but when you hear the instructional-volume voice again, please switch your attention back to me.
- 7) Very little on the computers is locked. I trust you to leave everything the way that you find it.
- 8) You will share the administration account with others. This introduces the need to learn to keep files organized. ("Say no to Spotlight...")
- 9) During class time you are not to use headphones unless it's part of the assignment, or if the class has been given permission to listen to music while working.
- 10) During times that music listening is allowed, you are to keep this to iTunes, and not access music via video sites, as these are distracting.
- 11) During times that music listening is allowed, if using your own mobile music device, please be conscious of how distracting it may be to those around you, and so keep the volume down.
- 12) At times where laptops are not to be used, they need to be closed.
- 13) End of class routine: quit all applications, log off of johnrayworth.info and roll your chair in.

Note on gum: Please don't chew gum in class. Though you may have had teachers in the past that did not mind, please note that I do... at least a little. The way I put it is this: "If I *can't* see it, smell it or hear it", I won't ask you to put it in the garbage. If I *do* see, smell, or hear it, I will ask you to put it in the garbage; please don't take it personally.

Note on dress code: Because of the way you sit at the computers, angled forward, there is one particular issue in the lab that I'd prefer not to have to deal with: underwear. Please do your best to abide by the dress code and not have (girls) exposed underwear due to bare-midriff attire, or (boys) saggy pants exposing a good portion of your boxers. It's not a big issue, and these fashions are generally out of date anyway, but again, it's mentioned here just in case.

Note on tardies: (For years where it is necessary.)

Here's looking forward to a fun and productive semester.

John Rayworth