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## **EQUIPO DE INNOVACIÓN**

**Escuela de Ingeniería y Departamento TIC**

<https://portal.upf.edu/en/web/usquid-etic/inici>

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**Evaluación de la Docencia del Máster:  
Intelligent Interactive Systems  
2019-2020 Academic Course**

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**Noviembre, 2020**

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# 1. Introducción

Tal y como se hizo en cursos precedente, el Equipo de Innovación (antes USQUID) de la UCA EiTIC, ha llevado a cabo un estudio centrado en la satisfacción discente de los programas de máster del Departamento. En este documento en concreto se recogen los resultados obtenidos en el marco del *Master in Intelligent Interactive Systems* en el curso 2019-2020.

El cuestionario diseñado con este fin fue enviado al estudiantado y recogido de manera anónima una vez presentada la tesis de máster. El índice de respuesta es del 27,8% sobre un total de 18 estudiantes que se matriculó y presentó la tesis al final del curso 2019-2020.

Apuntar que, como en el resto de programas formativos, el desarrollo del *MIIS* se vio afectado por la pandemia mundial del COVID-19, teniendo que pasar formato online tanto parte de la docencia como las presentaciones de las tesis de máster. Este hecho ha de tenerse presente a la hora de analizar los datos recogidos.

Siguen tanto el cuestionario como los resultados y conclusiones extraídas a partir del estudio.

## 2. Presentación del Instrumento

A continuación, el instrumento utilizado para la recopilación de datos e informaciones relacionadas con la satisfacción de la docencia del Máster Intelligent Interactive Systems. Recordamos que este formulario fue aplicado en papel y se garantizó el anonimato.

Dear Students,

In order to collect your feedback to improve courses and teaching practices we ask you to fill the questionnaire below. It's anonymous.

We really thank you in advance

Please, mark your level of agreement with each affirmation using the scale 1 to 5, being 1 totally disagree with and 5 fully agree with \*

	1 (totally disagree)	2 (somewhat disagree)	3 (neither agree or disagree)	4 (somewhat agree)	5 (fully agree)
I think that, in general, the courses were useful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that, in general, the courses were well prepared/presented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that, in general, the practices/labs, seminars and other educational activities help me to understand the theory worked in lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, I think the master was well coordinated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I think that, in general, the academic resources provided during the course (material, labs, equipment) were suitable to support my learning process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that, in general, the educational resources by UPF (Library, Aula Global System, etc.) were suitable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, I am satisfied with the tutorship advice received before the master started (e.g. in choosing elective courses)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, I am satisfied with the tutorship advice and the support by the master coordinator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, I am satisfied with the support and attention of the secretariat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, I am satisfied with the supervision on my master thesis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, add here any comment about positive aspects and recommendations for the improvement of the items collected in the previous grid \*

La vostra risposta

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What did you like the most and the least about the master? \*

La vostra risposta

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Which are your professional perspectives/intentions after finishing the master? (Do another master, continue your academic career with the PhD, work in a company, you don't know...). Please, explain us your answer. \*

La vostra risposta

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### 3. Resultados obtenidos

En esta sección se presentan los resultados obtenidos a través de la aplicación del instrumento. Tal y como se apuntó anteriormente, se consiguió la participación de 5 estudiantes que suponen un 27,8% del total de matriculados al MIIS que presentó y defendió su TFM en el curso 2019-2020.

Para la presentación de los resultados se seguirá el mismo orden de preguntas del propio formulario, empezando por una tabla resumen de todos los ítems recogidos en la parrilla A estos, los acompaña tanto la valoración promedio, como el valor de la respectiva desviación estándar y la moda para cada pregunta en concreto. Después se mostrará un gráfico de barras con la distribución de respuestas de cada ítem y su valoración. Finalmente, los comentarios cualitativos recogidos. Tanto los ítems como los comentarios globales se presentarán en inglés para ser lo más fiel posible a los datos e informaciones recopilados.

Todos los ítems fueron presentados en forma de afirmación, solicitando al estudiantado que indicara su grado de acuerdo utilizando la escala de 1 a 5, siendo 1 en total desacuerdo y 5 en total acuerdo. En la tabla que sigue se muestran los resultados del año académico correspondientes al curso de 2019-2020.

	Curso 2019-2020		
	Valoración promedio	Desviación Estándar	Moda
1. I think that, in general, the courses were useful	3,40	1,14	3
2. I think that, in general, the courses were well prepared/presented	3,40	1,14	3
3. I think that, in general, the practices/labs, seminars and other educational activities help me to understand the theory worked in lectures	3,80	1,10	4
4. In general, I think the master was well coordinated	3,40	1,82	5
5. I think that, in general, the academic resources provided during the course (material, labs, equipment) were suitable to support my learning process	3,80	1,10	4
6. I think that, in general, the educational resources by UPF (Library, Aula Global System, etc.) were suitable	4,20	1,30	5
7. In general, I am satisfied with the tutorship advice received before the master started (e.g. in choosing elective courses)	3,40	1,82	5
8. In general, I am satisfied with the tutorship advice and the support by the master coordinator	3,60	1,52	5
9. In general, I am satisfied with the support and attention of the secretariat	3,40	1,82	5
10. In general, I am satisfied with the supervision on my master thesis	3,20	1,30	2

Como se observa en la tabla anterior, las valoraciones promedio de satisfacción oscilan entre el 3,20 y el 4,20 sobre un máximo de 5. Como primera observación, vemos un grado de satisfacción positivo. En cuanto a la moda se observa un valor 3/5 en las preguntas 1 y 2 y valor de 2 en la pregunta 10. En las demás preguntas, la moda se

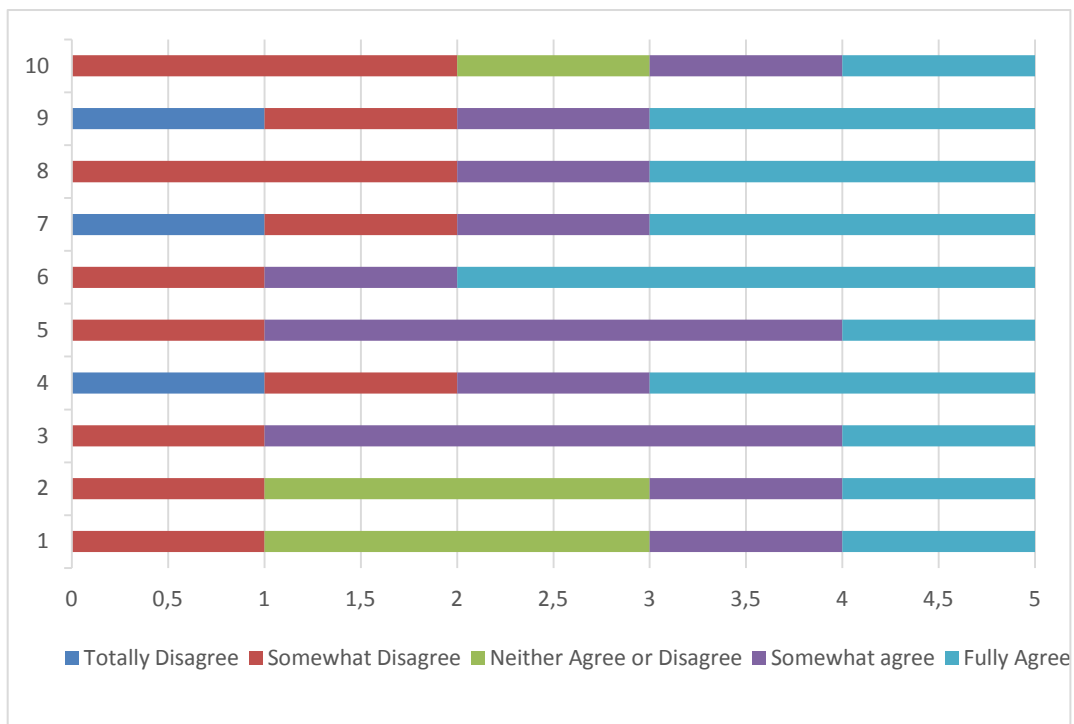
concentra en valores elevados, presentando por lo tanto mayor satisfacción de los alumnos. En esta línea es relevante destacar el valor de la desviación, que se sitúa en todos los casos por encima de 1,10 e incluso en algunas preguntas alcanza valores de 1,82 (ítems 4, 7 y 9), haciendo evidente así, un considerable grado de heterogeneidad.

En cualquier caso, y como forma general, vemos un grado de satisfacción positivo del alumnado sobre el máster.

En el gráfico que sigue, y tal y como se había plasmado al inicio de la sección de resultados, se muestra la distribución de las valoraciones realizadas por el estudiantado en función de su grado de acuerdo con los 10 ítems incluidos.

En el eje  $x$  los casos (5 estudiantes) y en el eje  $y$  los números que corresponden a cada uno de los ítems propuestos en el instrumento:

1. I think that, in general, the courses were useful
2. I think that, in general, the courses were well prepared/presented
3. I think that, in general, the practices/labs, seminars and other educational activities help me to understand the theory worked in lectures
4. In general, I think the master was well coordinated
5. I think that, in general, the academic resources provided during the course (material, labs, equipment) were suitable to support my learning process
6. I think that, in general, the educational resources by UPF (Library, Aula Global System, etc.) were suitable
7. In general, I am satisfied with the tutorship advice received before the master started (e.g. in choosing elective courses)
8. In general, I am satisfied with the tutorship advice and the support by the master coordinator
9. In general, I am satisfied with the support and attention of the secretariat
10. In general, I am satisfied with the supervision on my master thesis





La pregunta de carácter cualitativo permitía recoger tanto comentarios como recomendaciones relacionados con los ítems valorados previamente mediante el uso de la escala Likert, obteniendo así una evaluación más global de cada uno de los aspectos recogidos. En esta primera tabla adjunta, se puede encontrar distintos comentarios de los estudiantes para la mejora del máster y de la experiencia del alumnado, adjuntando las 5 respuestas obtenidas.

Please, add here any comment about positive aspects and recommendations for the improvement of the items collected in the previous grid.
<p>1. As a student with background in Computer Science one thing that I have encountered is that many other students had little idea on how to use some tools that are actually essential in a programming-related field, mainly because they come from other engineering fields. Sometimes this has slowed things down, especially when working in groups. I believe that this could be partially overcome by recommending future students some resources before starting classes, especially if they are not familiar with some tools (such as command line, git, text editors and so). In the style of the 'Missing Semester' lecture series from MIT or something similar could be recommended or some other material elaborated by UPF could be recommended a couple of months prior to the start of the classes.</p>
<p>2. I think it is important to have a platform regarding the master thesis to upload the content and to have all the deadlines clear. This year has been a mess regarding the thesis deadlines and not all the students submitted the same day. In addition, you can do modifications on your thesis until the day of the presentation but the final mark is decided after the presentation (without time to look at the final document). It does not make sense to me and to many other students.</p>
<p>3. The master's program is excellent and suitable for students who want to take part in the field of data science. The material studied and the professors are exceptional in their quality. The only thing I would suggest is a broader explanation at the beginning of the year about the thesis and what the world of data science offers and how it is reflected in the degree - so the individual feels more belonging and understands the context of data science when he studies</p>
<p>4. Courses must be better/well organized (how to pass them (evaluation), when the homework has to be delivered, ...) since the first day. It is the only way we could spend time on what it is important: Learning.</p>
<p>5. Some of the practices and laboratories have been useful to learn about the subjects, and the freedom given to carry out some of the projects has helped to develop our creativity. The coordination of the master should improve, for instance there were subjects that were not thought for master students but for undergrads, and this caused an overload of work which in turn did not result in an increase of knowledge about these subjects.</p>

A continuación, se muestran los comentarios cualitativos obtenidos en el cuestionario, concretamente se les pedía que indicaran qué era lo más positivo y lo más negativo del máster. Se recogen un total de 5 respuestas registradas.

What did you like the most and the least about the master?
<p>1. <b>The most:</b> I have really enjoyed the expertise of some professors in some subjects and my Master's thesis. Such courses were really well taught and professors were always willing to help and explain everything twice, although some things could be improved  <b>The least:</b> One thing that I didn't like is that we were not able to cover Reinforcement Learning neither in Machine Learning nor in Autonomous Systems. I believe this is an interesting area of research and really trending. Because of continuous delays (many times provoked by students) in both courses we could not cover this. Maybe the schedules of both subjects are too tight and RL should be considered to be taught in a separate course.</p>
<p>2. <b>The most:</b> I like the fact that all the courses have practical and interesting projects and that keeps you engaged in the courses.  <b>The least:</b> Almost all projects are in groups and the individual work is not tracked at all. It happened to me that my team mates were not doing anything in some projects.</p>
<p>3. <b>The most:</b> The warm attitude of the professors in the different courses and the accompaniment along the way, including that of the coordinator, were exceptional and I was pleasantly surprised by it</p>

4. <b>The most:</b> Flexibility on schedules. <b>The least:</b> Unorganized schedules of exams, homework, content of courses, materials, Not having job offers at the end, not many PhD offers,... but you can find those PhD offers from UPF at LinkedIn.
5. <b>The most:</b> Some of the people I have met on the master. <b>The least:</b> I knew most of the things that have been taught in the master, from the previous degree on Computer Science with mention on machine learning.

Por último, se les pedía a los participantes en la evaluación que indicaran cuales era sus perspectivas profesionales. Seguidamente las 5 respuestas recogidas.

<b>Which are your professional perspectives/intentions after finishing the master? (Do another master, continue your academic career with the PhD, work in a company, you don't know...). Please, explain us your answer.</b>
1. At first, I had the idea of <b>working in a company</b> (probably in the <b>R&amp;D department</b> ), but due to the COVID situation and actually an increasing interest in research I am strongly considering taking up a <b>PhD</b> . However, my intentions after the PhD would be to work in corporate research.
2. I was trying to obtain some <b>scholarships to go abroad</b> in this 2020-2021 course but the master does not help you at all with your future steps once you end the master program. I finally <b>enrolled myself in another university</b> in order to finally get the internship that I was looking for since the UPF did not help at all with the bureaucracy.
3. Saving some money to start living (as I have not worked as a full-time engineer yet) Find a <b>job</b> that let me study a <b>PhD</b> in data science and still working Praise this amazing university at every opportunity
4. <b>Work</b> in a company and, in the future, study a <b>PhD</b> .
5. I would like to continue my academic career with a <b>PhD</b> in Artificial Intelligence.

Se puede observar claramente como hay una voluntad generalizada de seguir con la carrera académica cursando un doctorado tras la finalización del máster, apareciendo esta opción en 4 de las 5 respuestas recogidas. Por otro lado, la opción de trabajar también es recurrente entre las respuestas recogidas, siendo comentado en 3 de las 5 respuestas.

## **Conclusiones**

Tal y como se puede extraer del informe, el estudiantado que ha participado en la evaluación muestra un grado de satisfacción globalmente positivo, aunque se puede observar un leve efecto negativo seguramente propiciado por la anómala situación a raíz del Covid19. También se han detectado elementos para la reflexión que serán analizados por la coordinación del máster para considerar posibles acciones de mejora.

Animamos a la coordinación del máster a que envíe este informe al profesorado involucrado para reflexionar conjuntamente sobre los resultados obtenidos. En caso de que se requiera, el Equipo de Innovación de la UCA EiTIC podría dar apoyo en el diseño, ejecución y evaluación de cualquiera de las mejoras que pudieran plantearse y así lo requieran.