



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

LEVEL/ LEFEL 4

SEMESTER 2

MODULE CODE/ COD Y MODIWL: M4X00999
Data Visualisation

ASSESSMENT TYPE/ MATH O ASESU: ASSIGNMENT

ASSESSMENT/COMPONENT/ ASESAD/CYDRAN: 1

COMPONENT WEIGHTING/ PWYSAU'R CYDRAN: 100%

WORD COUNT/ NIFER Y GEIRIAU: 2500 WORDS/O EIRIAU

MODULE TUTOR / TIWTOR Y MODIWL: Dr Nik Whitehead

SUBMISSION DETAILS/ MANYLION CYFLWYNO:

- **Make sure that Your Name , Your Student P Number, Your Module Title, Assignment Title and Your Module Lecturer's Name are clearly shown on the front page of your assignment**
- **All assignments must be submitted electronically to Turnitin unless indicated by the module lecturer here:**
- **If lecturer additionally requires you to upload coding separately to Moodle it will be indicated here: NO**
- **If a paper submission is required then it will be indicated here: YES**
you will then be required to submit the assignment parts in a suitable report folder– not in poly-pockets - to the library. For paper submissions only this form (ALL PAGES) MUST be printed out, signed, attached to the front of your assignment and submitted to the library separately from your electronic assignment submission. Paper submission assignments will not be accepted without this form as it is a requirement that you sign the disclosure regarding the referencing convention.

- **DO NOT** put this form into Turnitin or it will match many similarities with other students' submissions.



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RESULT

School of Applied Computing ASSIGNMENT SPECIFICATION

Student name:		Student P number:	
Programme:			
Lecturer:	Dr Nik Whitehead	Internal Verifier:	Sue Maw
Assignment Title:	Critiquing and creating effective data visualisations		
Hand Out Date:	TBA	Submission deadline:	TBA

Referencing:	In the main body of your submission you must give credit to authors on whose research your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have read or quoted in order to complete this assignment (e.g. for books: surname of author and initials, year of publication, <u>title of book</u> , edition, publisher: place of publication).		
Disclosure:	I declare that this assignment is all my own work and that I have acknowledged all materials used from the published or unpublished works of other people. All references have been duly cited.		
Student's Signature:	<i>Assignments will not be accepted without a signature here</i>	Date:	

Late submission will result in a late penalty mark, as follows:

Up to one week late, maximum mark of 40% for first attempts. No late submission for resit work.

(Academic Quality Handbook 2016/17 7.5 (5))

Only the Extenuating Circumstances Committee may grant an extension.

Learning Outcomes tested (from module syllabus)

1. Present nominal, ordinal, categorical and network data in forms that enable the easy understanding of the data.
2. Rearrange data in order to extract hidden information from it.
3. Use colour, position, size, shape and icons to encode information creatively and effectively.

TASK DESCRIPTION

Task 1 – 50% of the total mark

Consider the “Skate Or Die” infographic available on Moodle. Write a short (1000-word) discussion of how effective this is as a means for presenting the information it contains. You should include any particularly good features of the poster, any problems that you have identified and your ideas for improving the design.

Task 2 – 50% of the total mark

The data in the file “DV Assignment Dataset 2016-2017.xlsx” (available on Moodle) comes from the Monthly Accident & Emergency Report published by NHS Wales Informatics Service: “Time Spent in NHS Wales Accident and Emergency Departments: Monthly Management Information” (original data available online at <http://www.infoandstats.wales.nhs.uk/page.cfm?orgid=869&pid=62956>). It shows the number of people attending A&E within the Swansea and Newport areas.

The data shows the number of patients treated each month during the three months from May 2016 to July 2016 at each of the eight local hospitals within two different health trusts. It also gives the number and percentage of those patients who were treated within 4, 8 and 12 hours, together with the number of patients who waited more than 12 hours before treatment.

Based upon this data, create an A3 colour poster that allows viewers to easily answer the following questions:

1. How has the total number of patients seen at local hospitals varied over the period?
2. How have the proportions of patients treated within 4 hours, 8 hours, 12 hours and over 12 hours compared at the Royal Gwent Hospital and at Morriston Hospital over the period?
3. Is there a difference in treatment times between Major and Minor units over the period?
4. Is there a difference in treatment times between hospitals in Abertawe Bro Morgannwg University Local Health Board and hospitals in Aneurin Bevan Local Health Board over the period?
5. Assuming that they have an injury that could be treated at any of the hospitals, where are they most likely to have to wait less than 4 hours?

GUIDANCE FOR STUDENTS IN THE COMPLETION OF TASKS

Task 1

You may find it helpful to print out the graphic in colour on A3 paper and look at it at arm's length.

Your discussion should consider the following aspects of visualisation design:

- Colour – Can you see everything? Do the colours fit the subject?
- Text – Can you read everything? Are there too many fonts or styles of text? Is the text too large or too small?
- Graphs – Are the graphs easy to read? Are they of a suitable type for the data that they're being used to display?
- Graphics – Are there graphics that don't provide information? If so, are they harmless or do they actively prevent you from seeing information that is being presented? Is the overall design good or bad? Does it raise any ethical issues?
- Cognition – Does it put any unnecessary demands on the viewer in terms of memory load, perception or mental modelling?

- Improvements – How would you improve the infographic? Remember to explain how this would solve any problems previously identified. You may include a rough sketch of any redesigned areas of the graphic if you wish.

In each case, you should support your decisions with references to the research literature. You should aim for 5-10 reference sources for this purpose and at least half of them should be books or journal papers.

Marks will be awarded for:

- ❖ (50%) Identifying good practice and problems with the following:
 - Colour
 - Text
 - Graphs
 - Graphics
 - Cognition
 - Explaining the problems with reference to the literature.
- ❖ (25%) Improving the infographic
 - Identifying practical improvements
 - Explaining those improvements with reference to the literature.
- ❖ (15%) Document presentation
 - Layout, structure
 - Appropriate use of examples
 - Readability, spelling, grammar.
 - Word count (1000 words $\pm$ 10%)
- ❖ (10%) References
 - Number and quality of references.

Task 2

You should create an A3 poster that includes graphics that allow the viewer to easily answer all of the questions given. Templates are available on Moodle for A3 posters in Microsoft Word and Microsoft Powerpoint formats. The poster may have either landscape or portrait orientation and should contain computer-generated (**not** hand-drawn) graphics. Both Tableau and IBM's "ManyEyes" website has many different types of visualisations that you may find useful.

Marks will be awarded for:

- ❖ (50%) Presentation of data
 - Appropriate display methods
 - Accurate data
 - Answers all questions set
- ❖ (40%) Infographic design
 - Use of text
 - Use of colour
 - Use of graphics
 - Use of white space
- ❖ (10%) Creativity
 - Is it aesthetically pleasing or, at least, elegant in its simplicity?

WHAT YOU SHOULD SUBMIT

The report (MS Word or pdf format) and the poster (pdf format) (but not the assignment specification) should be submitted via Turnitin. A paper copy including the assignment specification should also be handed in to the library.

MARKING CRITERIA AND STUDENT FEEDBACK

This section details the assessment criteria. The *extent* to which these are demonstrated by you determines your mark. The marks available for each criterion are shown. Lecturers will use the space provided to comment on the achievement of the task(s), including those areas in which you have performed well and areas that would benefit from development/improvement.

Task 1

QUESTION	EXCEPTIONAL 85-100	MERITORIOUS 70-84	HIGHLY COMPETENT 60-69	COMPETENT 50-59	PASS 40-49	FAIL 0-39
Description of what is wrong with the original poster (40%)	Provides detailed breakdown of cognitive errors in data presentation	Identifies a wide range of problems	Explains all identified problems in terms of cognitive processes	Discusses one or two problems with reference to cognitive processes	Identifies three to six obvious problems	Identifies two or fewer problems.
Suggestion of improvements (30%)	Provides detailed breakdown of cognitive support in data presentation	Suggests a wide range of justified improvements	Justifies the main improvements in terms of cognitive processes	Suggests three to six appropriate improvements	Suggests one or two obvious improvements	Makes no suggestions for how to improve the poster
Links to literature (10%)	All points referenced	Most points referenced	Considers cognitive issues	Considers other issues	Considers visual issues	No links to the literature
Document presentation (10%)	Reads like a technical review article	Good use of signposting; good use of English; tables of figures and tables	Clear sectioning of content; labelling of tables and figures; reasonable English	Some labelling of tables and figures; clearly needs spell- and grammar-checking	Basic use of introduction, body and conclusion; English is comprehensible.	No clear structure; incomprehensible
Referencing (10%)	>10 references AND three quarters or more of references are book/journal standard	>4 references AND three quarters or more of references are book/journal standard	<5 references AND more than half of references are book/journal standard	<5 references OR fewer than half of references are book/journal standard	<5 references AND fewer than half of references are book/journal standard	No references

Comments

Part 2

QUESTION	EXCEPTIONAL 6	MERITORIOUS 5	HIGHLY COMPETENT 4	COMPETENT 3	PASS 2	FAIL 1
Presentation of data (35%)	All forms are highly effective and accurate	Most forms are highly effective and accurate	Some forms are highly effective and accurate	Uses multiple appropriate graph forms with accurate data	Uses the same graph form without, or uses wildly inaccurate data	Uses totally inappropriate forms
Answers questions (15%)	Answers all questions effectively	Answers 4 questions effectively with no major problems in other	Answers 3 questions effectively with no major problems in others	Answers 3 questions effectively	Answers 2 questions effectively	Answers only 1 or no questions effectively
Use of colour (20%)	Professional-looking design	All colours are used appropriately and allow for limits of visual system	All colours are used appropriately	Most colours are visible	Some colours are readable	Unreadable
Use of other elements (20%)	Professional-looking design	All elements are used appropriately and allow for limits of visual system	All elements are used appropriately	Text is a sensible size and well-spaced	Text is readable but in an inappropriate manner.	Unreadable
Creativity (10%)	Professional-looking design	Most graphic design elements work well	Aesthetically pleasing/elegant in its simplicity	Some graphic design elements that work well	Plain, with no attempt to add graphic design elements	Ugly

Comments

Assignment Mark (Assessment marks are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed.)	Late Submission Penalties (tick if appropriate)		%
	Up to one week late		
	First Attempt?		

MASTERS COMMON ASSESSMENT AND MARKING CRITERIA

Assessment Criteria	FAIL	FAIL	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	EXCEPTIONAL
	FAIL 0-39%	FAIL 40-49%*	PASS 50-59%	PASS 60-69%	MERIT 70-79%	DIST'ION 80-89%	DIST'ION 90-100%
1. Research-informed Literature Extent of research and/or own reading, selection of credible sources, application of appropriate referencing conventions	Little or no evidence of reading. Views and findings unsupported and non-authoritative. Referencing conventions largely ignored.	Poor evidence of reading and/or of reliance on inappropriate sources, and/or indiscriminate use of sources. Referencing conventions used inconsistently.	References to a limited range of mostly relevant sources. Some omissions and minor errors. Referencing conventions evident though not always applied consistently.	Inclusion of a range of research-informed literature, including sources retrieved independently. Referencing conventions mostly consistently applied.	Inclusion of a wide range of research-informed literature, including sources retrieved independently. Selection of relevant and credible sources. Very good use of referencing conventions, consistently applied.	A comprehensive knowledge of research informed literature embedded in the work. Excellent selection of relevant and credible sources. High-level referencing skills, consistently applied.	Outstanding knowledge of research-informed literature embedded in the work. Outstanding selection of relevant and credible sources. High-level referencing skills consistently and professionally applied
2. Knowledge and Understanding of Subject Extent of systematic knowledge, understanding and critical awareness of concepts and underlying principles associated with the discipline.	Major gaps in knowledge and understanding of material at this level. Substantial inaccuracies.	Gaps in knowledge, with only superficial understanding. Some significant inaccuracies.	Evidence of knowledge and understanding of current and relevant concepts and underlying principles but with some gaps or errors.	Knowledge is accurate with a good understanding of the field of study.	Knowledge is extensive. Exhibits understanding of the breadth and depth of established and contemporary views.	Excellent mastery of a complex and specialised area of knowledge and skills, with an excellent critical awareness of current problems and/or new insights at the forefront of the field. Clear awareness of challenges to established views and the limitations of the knowledge base.	Exceptional mastery of a complex and specialised area of knowledge and skills, with an exceptional critical awareness of current problems and/or new insights at the forefront of the field. A critical awareness of the ambiguities and limitations of knowledge.
3. Analysis Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence	Unsubstantiated generalisations, made without use of any credible evidence. Lack of logic, leading to unsupportable/missing conclusions. Lack of any attempt to analyse, synthesise or evaluate.	Some evidence of analytical intellectual skills, but for the most part descriptive. Ideas/findings sometimes illogical and contradictory. Generalised statements made with scant evidence. Conclusions lack relevance.	Evidence of some logical, critical thinking and some attempts to synthesise, albeit with some weaknesses. Some evidence to support findings/ views, but evidence not consistently interpreted. Some relevant conclusions and recommendations, where relevant.	Evidence of logical, analytical, critical thinking and synthesis. Can analyse new and/or complex data and situations without guidance. An emerging awareness of different stances and ability to use evidence to support the argument. Valid conclusions and recommendations, where relevant	Evaluates methodologies, current research and ideas critically and, where appropriate, proposes new hypotheses/ ideas. Evaluates and synthesises complex issues both systematically and creatively. Makes sound judgements and proposes convincing arguments in the absence of complete data. Sound, convincing conclusions / recommendations.	Excellent critical evaluation of methodologies, current research and ideas and, where appropriate, proposes new hypotheses/ ideas. Evaluates and synthesises complex issues systematically and creatively. Makes excellent judgements and proposes convincing arguments in the absence of complete data. Strong, persuasive, conclusions, justifiable recommendations. Work is of conference publishable quality.	Exceptional critical evaluation of methodologies, current research and ideas and, where appropriate, proposes new hypotheses/ ideas. Evaluates and synthesises complex issues at a high level of mastery. Makes outstanding judgements and proposes highly convincing arguments in the absence of complete data. Highly persuasive conclusions. Work is of journal publishable quality.
4. Practical Application and Deployment Effective deployment of appropriate methods, materials, tools and techniques; extent of skill demonstrated in the application of concepts to a variety of processes and/or contexts; formulation of innovative, original and creative solutions to solve problems.	Limited or no use of methods, materials, tools and/or techniques. Little or no appreciation of the context of the application.	Rudimentary application of methods, materials, tools and/or techniques but without consideration and competence. Flawed appreciation of the context of the application.	A satisfactory awareness and mostly appropriate application of well-established methods, materials, tools and/or techniques. Some appreciation of the context of the application.	A good and appropriate application of standard methods, materials, tools and/or techniques. Good appreciation of the context of the application, with some use of examples, where relevant.	A very good application of a range of methods, materials, tools and/or techniques. Very good consideration of the context of the application, with perceptive use of examples, where relevant. Evidence of some originality, innovation and creativity.	An advanced application of a range of methods, materials, tools and/or techniques. The context of the application is well considered, with extensive use of relevant examples. Application and deployment extend beyond established conventions. Originality, innovation and/or creativity evident throughout.	Outstanding levels of application and deployment skills. Assimilation and development of cutting edge processes and techniques.
5. Skills for Professional Practice Demonstrates attributes expected in professional practice including: individual initiative and collaborative working; deployment of appropriate media to communicate (including written and oral); clarity and effectiveness in	Communication media is inappropriate or misapplied. Little or no evidence of autonomy in the completion of tasks. Work is poorly structured and/or largely incoherent.	Media is poorly designed and/or not suitable for the audience. Poor independent or collaborative initiative. Work lacks structure, organisation, and/or coherence	Can communicate clearly to specialist and non-specialist audiences in a suitable format but with some room for improvement. Can work autonomously and as part of a team, but with limited involvement in group activities. Work lacks coherence in places	Can communicate effectively in a suitable format, but may have minor errors. Can work effectively autonomously and as part of a team, with clear contribution to group activities. Mostly coherent work and is in a suitable structure.	Can communicate well, confidently and consistently in a suitable format. Can work very well autonomously and as part of a team, with very good contribution to group activities. Work is coherent and fluent and is well structured and organised.	Can communicate professionally and, confidently in a suitable format. Can work professionally autonomously and within a team, showing leadership skills as appropriate, managing conflict and meeting obligations. Work is coherent, very fluent and is	Can communicate with an exceptionally high level of professionalism. Can work exceptionally well and professionally autonomously and within a team, showing advanced leadership skills. Work is exceptionally coherent, very fluent and is

presentation and organisation.			and could be better structured.			presented professionally.	presented professionally.
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BACHELORS COMMON ASSESSMENT AND MARKING CRITERIA

Assessment Criteria	OUTRIGHT FAIL	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	EXCEPTIONAL
	0-29%	30-39%*	40-49%	50-59%	60-69%	70-79%	80-100%
1. Research-informed Literature Extent of research and/or own reading, selection of credible sources, application of appropriate referencing conventions	Little or no evidence of reading. Views and findings unsupported and non-authoritative. Referencing conventions largely ignored.	Poor evidence of reading and/or of reliance on inappropriate sources, and/or indiscriminate use of sources. Referencing conventions used inconsistently.	References to a limited range of mostly relevant sources. Some omissions and minor errors. Referencing conventions evident though not always applied consistently.	Inclusion of a range of research-informed literature, including sources retrieved independently. Referencing conventions mostly consistently applied.	Inclusion of a wide range of research-informed literature, including sources retrieved independently. Selection of relevant and credible sources. Very good use of referencing conventions, consistently applied.	A comprehensive range of research informed literature embedded in the work. Excellent selection of relevant and credible sources. High-level referencing skills, consistently applied.	Outstanding knowledge of research-informed literature embedded in the work. Outstanding selection of relevant and credible sources. High-level referencing skills consistently and professionally applied.
2. Knowledge and Understanding of Subject Extent of knowledge and understanding of concepts and underlying principles associated with the discipline.	Major gaps in knowledge and understanding of material at this level. Substantial inaccuracies.	Gaps in knowledge, with only superficial understanding. Some significant inaccuracies.	Evidence of basic knowledge and understanding of the relevant concepts and underlying principles.	Knowledge is accurate with a good understanding of the field of study.	Knowledge is extensive. Exhibits understanding of the breadth and depth of established views.	Excellent knowledge and understanding of the main concepts and key theories. Clear awareness of challenges to established views and the limitations of the knowledge base.	Highly detailed knowledge and understanding of the main theories/concepts, and a critical awareness of the ambiguities and limitations of knowledge.
3. Analysis Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence	Unsubstantiated generalisations, made without use of any credible evidence. Lack of logic, leading to unsupported/missing conclusions. Lack of any attempt to analyse, synthesise or evaluate.	Some evidence of analytical intellectual skills, but for the most part descriptive. Ideas/findings sometimes illogical and contradictory. Generalised statements made with scant evidence. Conclusions lack relevance.	Evidence of some logical, analytical thinking and some attempts to synthesise, albeit with some weaknesses. Some evidence to support findings/views, but evidence not consistently interpreted. Some relevant conclusions and recommendations, where relevant	Evidence of some logical, analytical thinking and synthesis. Can analyse new and/or abstract data and situations without guidance. An emerging awareness of different stances and ability to use evidence to support the argument. Valid conclusions and recommendations, where relevant	Sound, logical, analytical thinking; synthesis and evaluation. Ability to devise and sustain persuasive arguments, and to review the reliability, validity & significance of evidence. Ability to communicate ideas and evidence accurately and convincingly. Sound, convincing conclusions / recommendations.	Thoroughly logical work, supported by evaluated evidence. High quality analysis, developed independently or through effective collaboration. Ability to investigate contradictory information and identify reasons for contradictions. Strong, persuasive, conclusions, justifiable recommendations.	Exceptional work; judiciously selected and evaluated evidence. Very high quality analysis, developed independently or through effective collaboration. Ability to investigate contradictory information and identify reasons for contradictions. Highly persuasive conclusions
4. Practical Application and Deployment Effective deployment of appropriate methods, materials, tools and techniques; extent of skill demonstrated in the application of concepts to a variety of processes and/or contexts; formulation of innovative and creative solutions to solve problems.	Limited or no use of methods, materials, tools and/or techniques. Little or no appreciation of the context of the application.	Rudimentary application of methods, materials, tools and/or techniques but without consideration and competence. Flawed appreciation of the context of the application.	An adequate awareness and mostly appropriate application of well-established methods, materials, tools and/or techniques. Basic appreciation of the context of the application.	A good and appropriate application of standard methods, materials, tools and/or techniques. Good appreciation of the context of the application, with some use of examples, where relevant.	A very good application of a range of methods, materials, tools and/or techniques. Very good consideration of the context of the application, with perceptive use of examples, where relevant. Evidence of some innovation and creativity.	An advanced application of a range of methods, materials, tools and/or techniques. The context of the application is well considered, with extensive use of relevant examples. Application and deployment extend beyond established conventions. Innovation and creativity evident throughout.	Outstanding levels of application and deployment skills. Assimilation and development of cutting edge processes and techniques.
5. Skills for Professional Practice Demonstrates attributes expected in professional practice including: individual initiative and collaborative working; deployment of appropriate media to communicate (including written and oral); clarity and effectiveness in presentation and organisation.	Communication media is inappropriate or misapplied. Little or no evidence of autonomy in the completion of tasks. Work is poorly structured and/or largely incoherent.	Media is poorly designed and/or not suitable for the audience. Poor independent or collaborative initiative. Work lacks structure, organisation, and/or coherence	Can communicate in a suitable format but with some room for improvement. Can work as part of a team, but with limited involvement in group activities. Work lacks coherence in places and could be better structured.	Can communicate effectively in a suitable format, but may have minor errors. Can work effectively as part of a team, with clear contribution to group activities. Mostly coherent work and is in a suitable structure.	Can communicate well, confidently and consistently in a suitable format. Can work very well as part of a team, with very good contribution to group activities. Work is coherent and fluent and is well structured and organised.	Can communicate professionally and, confidently in a suitable format. Can work professionally within a team, showing leadership skills as appropriate, managing conflict and meeting obligations. Work is coherent, very fluent and is presented professionally.	Can communicate with an exceptionally high level of professionalism. Can work exceptionally well and professionally within a team, showing advanced leadership skills. Work is exceptionally coherent, very fluent and is presented professionally.

FdSc & HN COMMON ASSESSMENT AND MARKING CRITERIA

Assessment Criteria	OUTRIGHT FAIL	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	EXCEPTIONAL
	REFER (equivalent to 0-29%)	REFER (equivalent to 30-39%*)	PASS (equivalent to 40-49%)	PASS (equivalent to 50-59%)	MERIT (equivalent to 60-69%)	DISTINCTION (equivalent to 70-79%)	DISTINCTION (equivalent to 80-100%)
1. Research-informed Literature Extent of research and/or own reading, selection of credible sources, application of appropriate referencing conventions	Little or no evidence of reading. Views and findings unsupported and non-authoritative. Referencing conventions largely ignored.	Poor evidence of reading and/or of reliance on inappropriate sources, and/or indiscriminate use of sources. Referencing conventions used inconsistently.	References to a limited range of mostly relevant sources. Some omissions and minor errors. Referencing conventions evident though not always applied consistently.	Inclusion of a range of research-informed literature, including sources retrieved independently. Referencing conventions mostly consistently applied.	Inclusion of a wide range of research-informed literature, including sources retrieved independently. Selection of relevant and credible sources. Very good use of referencing conventions, consistently applied.	A comprehensive range of research informed literature embedded in the work. Excellent selection of relevant and credible sources. High-level referencing skills, consistently applied.	Outstanding knowledge of research-informed literature embedded in the work. Outstanding selection of relevant and credible sources. High-level referencing skills consistently and professionally applied.
2. Knowledge and Understanding of Subject Extent of knowledge and understanding of concepts and underlying principles associated with the discipline.	Major gaps in knowledge and understanding of material at this level. Substantial inaccuracies.	Gaps in knowledge, with only superficial understanding. Some significant inaccuracies.	Evidence of basic knowledge and understanding of the relevant concepts and underlying principles.	Knowledge is accurate with a good understanding of the field of study.	Knowledge is extensive. Exhibits understanding of the main concepts and depth of established views.	Excellent knowledge and understanding of the main concepts and key theories. Clear awareness of challenges to established views and the limitations of the knowledge base.	Highly detailed knowledge and understanding of the main theories/concepts, and a critical awareness of the ambiguities and limitations of knowledge.
3. Analysis Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence	Unsubstantiated generalisations, made without use of any credible evidence. Lack of logic, leading to unsupported/missing conclusions. Lack of any attempt to analyse, synthesise or evaluate.	Some evidence of analytical intellectual skills, but for the most part descriptive. Ideas/findings sometimes illogical and contradictory. Generalised statements made with scant evidence. Conclusions lack relevance.	Evidence of some logical, analytical thinking and some attempts to synthesise, albeit with some weaknesses. Some evidence to support findings/views, but evidence not consistently interpreted. Some relevant conclusions and recommendations, where relevant	Evidence of some logical, analytical thinking and synthesis. Can analyse new and/or abstract data and situations without guidance. An emerging awareness of different stances and ability to use evidence to support the argument. Valid conclusions and recommendations, where relevant	Sound, logical, analytical thinking; synthesis and evaluation. Ability to devise and sustain persuasive arguments, and to review the reliability, validity & significance of evidence. Ability to communicate ideas and evidence accurately and convincingly. Sound, convincing conclusions / recommendations.	Thoroughly logical work, supported by evaluated evidence. High quality analysis, developed independently or through effective collaboration. Ability to investigate contradictory information and identify reasons for contradictions. Strong, persuasive, conclusions, justifiable recommendations.	Exceptional work; judiciously selected and evaluated evidence. Very high quality analysis, developed independently or through effective collaboration. Ability to investigate contradictory information and identify reasons for contradictions. Highly persuasive conclusions
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Taflen Cyflwyno Aseiniad Assignment Hand in Sheet

MANYLION Y MYFYRIWR STUDENT'S DETAILS			
ENW: NAME:		<i>RHIF</i> P Y MYFYRIWR: STUDENT P NUMBER:	P
CWRS: COURSE:	Foundation Year/HNC/HND/FdSc/BEng/BSc/MEng/MComp/MSc * <i>dileer fel y bo'n berthnasol / delete as appropriate</i>	<i>LEFEL Y</i> CWRS: LEVEL OF COURSE:	
MODIWL: MODULE:			
TEITL YR ASEINIAD: ASSIGNMENT TITLE:			
DARLITHIWR/WYR: LECTURER/S:		<i>DYDDIAD:</i> DATE:	
Staff Llyfrgell YN UNIG / Library Staff ONLY Derbyniwyd gan / Accepted by: _____ Dyddiad Cyflwyno: Date Submitted: _____ Amser / Time: _____			

DERBYNNEB / RECEIPT			
ENW / NAME:		<i>RHIF</i> P Y MYFYRIWR: STUDENT P NUMBER:	P
CWRS / COURSE:	Foundation Year/HNC/HND/FdSc/BEng/BSc/MEng/MComp/MSc * <i>dileer fel y bo'n berthnasol / delete as appropriate</i>	<i>LEFEL Y</i> CWRS / LEVEL OF COURSE:	
MODIWL / MODULE:			
TEITL YR ASEINIAD/ ASSIGNMENT TITLE:			
DARLITHIWR/WYR: LECTURER/S:		<i>DYDDIAD /</i> DATE:	
Staff Llyfrgell YN UNIG / Library Staff ONLY Derbyniwyd gan / Accepted by: _____ Dyddiad Cyflwyno: Date Submitted: _____ Amser / Time: _____			