The Calliope Reference Group was established in March 2008 by Education Policy Services to provide an informed forum for ongoing review, consideration and recommendation with regard to the unit outline online facility, Calliope.

Its membership and terms of reference are attached (Attachment A).

The Group has met three times during 2008 and considered a range of issues associated with Calliope, predominantly its effectiveness in providing quality unit outlines to students. During its deliberations the Committee has monitored the uptake of Calliope, during both first and second semester 2008, by way of the application of a web analytics tool (Webtrends) to the Calliope site, and via a survey of Associate Deans (Teaching and Learning) on usage. This feedback indicated extremely limited uptake of Calliope, even though the facility has been operational for two years.

The Group has also agreed, over the course of a couple of meetings, that:

a) a central repository for uploading unit information would be preferred that would cover the needs of both the Handbook and unit outlines online;

b) if Calliope was to be effective it would need to be made mandatory, but there was limited support from the Group for this proposal.

At its last meeting held on 30 September 2008, the Group considered a report from the Director of Student Services, Mr Jon Stubbs (Stubbs Report), which the Group had commissioned during an earlier meeting. This report is attached for information (Attachment B).

In considering the Stubbs Report, the Group focussed on two main issues – a long term approach that would provide a central repository for uploading unit information and an interim approach that would ensure the provision of high quality unit outlines to students in accordance with the University's policy. The University’s policy requirements for unit outlines have been operational for many years and comprise (refer http://www.teachingandlearning.uwa.edu.au/page/146985):

- Academic Council Resolution 118/03; and
- the Teaching and Learning Committee’s checklist for the provision of unit outlines online endorsed in 2004 (R45/04).

As noted by Academic Council R118/03 certain minimum standard requirements are mandated for unit outlines and that the unit outline is available, both online and in hard copy, within the first two weeks of the semester in which a unit is offered. The means of doing so, however, is discretionary. The Teaching and Learning Committee’s checklist further outlines unit outline information that is derived from existing sources (Handbook), mandatory in accordance with Academic Council R118/03, and suggests further information that is optional and recommended. This checklist also closely aligns to the needs of the OUTWARD database that has been developed to assist study abroad students (refer http://www.admin.uwa.edu.au/ic/outward/).
The Calliope Reference Group therefore recommends:

1. Endorsement of the proposed long term approach detailed in Section 5 of the Stubbs Report, in that:
   1.1. The Registrar’s Office (Student Services) assess and explore possible new functionalities within the Callista Student Information Management System with a view to establishing a central repository for uploading unit outline information that would satisfy the needs of both the University’s Handbook entries for unit information and provision of unit outlines to students.
   1.2. The proposed long term approach should:
      • enable the author of the data to enter and control published information directly into the developed system and that the authors have tools (which they are confident using) to enter information rapidly onto the Web;
      • have processes in place to alert course coordinators if unit outlines are missing from the web as and when the course receives enrolled students;
      • be a ‘once-only’ process.

2. Endorsement of the proposed interim approach detailed in Section 6 of the Stubbs Report in that:
   2.1. Each Faculty must decide, for implementation by 1st Semester 2009, whether its unit outlines are to be published as .RTF files via the Faculty’s Student Net website only or published via Calliope only. To avoid the possibility of inconsistent information, individual unit outlines should not be published both to Faculty web pages and in Calliope.
   2.2. Each Faculty must formulate and implement prior to 1st Semester 2009 a process to ensure quality of content in unit outlines and that all mandatory information, in accordance with Academic Council Resolution 118/03 and the Teaching and Learning Committee’s unit outline online checklist (R45/04), is provided.
   2.3. Faculties that choose to publish unit outlines in Calliope will need to contract services from the Centre for Software Practice (CSP).
   2.4. CSP to adjust the Calliope import to ensure that it comprises only those units offered by Faculties choosing to publish unit outlines via Calliope.
   2.5. A simple database comprising the web address for each unit outline (whether a Student Net web page or Calliope) should be developed and this information made available through the existing unit information web service published from the Handbook.
   2.6. The University Website Office, through the redevelopment of all Faculty websites should ensure that all Faculty websites include dynamically generated lists of links to unit outlines within their own websites. The links should point either to unit outlines hosted on their own websites or to unit outlines within Calliope. Students will have one single point to visit to find all outlines for a Faculty.
   2.7. The database of unit outline web addresses should be developed and managed by the SIMS team (Student Services) with some web service development by the University Website Office. Regular link checks should be run to ensure the availability of outlines. A single list of all unit outlines would be available for quality assessment processes.
   2.8. The use of web services for the publication of this information would facilitate the presentation of a list of links to unit outlines within the Student Portal personalised according to a student’s enrolment - rather than the current links to Handbook entries.
2.9. Where unit outlines are published as .RTF files, file names should adopt the following naming convention

Unit code + unit title + teaching period code and year

as in: BUSN7403 Research Planning and Development S1 2008

2.10. Each Faculty consider the faculty-specific recommendations (10 – 18) contained in the Stubbs Report to ensure high quality unit outlines.

The Calliope Reference Group recommends strongly in these terms in light of:

- the University’s priority to continue to improve the student learning experience;
- the current budgetary climate, whereby any proposal needs to be achievable within existing resources;
- the impending AUQA audit, which will focus on the student experience generally and also specifically on the provision of unit outlines online, as this was an issue raised during the 2003 audit.

The quality of unit outlines online was a major concern to the Group which therefore emphasises the importance of the recommendation that faculties consider, formulate and implement a process to ensure the provision of high quality unit outlines for all units prior to 1st Semester 2009.

In forwarding this report to the Teaching and Learning Committee for consideration, it should be noted that the Registrar has considered the implications of the Stubbs Report for the Registrar’s Office and is supportive of the recommendations made.

Sue Smurthwaite
Convener
Calliope Reference Group
27 October 2008
Terms of Reference for the Calliope Reference Group

The Calliope Reference Group has been established by Education Policy Services to provide an informed forum for ongoing review, consideration and recommendation with regard to the unit outline online facility, Calliope.

Membership
Membership of the Calliope Reference Group is as follows:

Manager, Education Policy Services (Ms Sue Smurthwaite) - convener
Director, Centre for Software Practices (Dr David Glance)
Director, International Centre (Dr Bruce Mackintosh)
Director, Student Services (Mr Jon Stubbs)
Manager, UWA Website Project (Mr Grant Malcolm)
Consultant, OUTWARD project (Professor Lawrie Davidson)
Associate Deans (Teaching and Learning):
  Dr Alexandra Ludewig, Faculty of Arts, Humanities and Social Sciences
  Dr Patrick Finnegan, Faculty of Natural and Agricultural Sciences
  Associate Professor Phil Hancock, UWA Business School
Executive Officer (Ms Sally Jackson)

Schedule of Meetings
The Reference Group will meet on an ad hoc basis, as and when issues arise for consideration.

Terms of Reference
1. To provide oversight of the unit outline online facility, Calliope. Such oversight to include:
   • Review and consideration of the management of Calliope;
   • Aims of Calliope, both current and evolving;
   • Support of Calliope, including financial and technical;
   • Content management and appropriate access to Calliope;
   • Information management requirements of the system.

2. To forward recommendations and advice to the Pro Vice-Chancellor (Teaching and Learning) or the Registrar, as appropriate, on proposed future needs of and changes to Calliope. Changes affecting teaching and learning University-wide (faculties, schools, sections, etc) will be forwarded to the Teaching and Learning Committee for its information.

23 April 2008
Report for the Calliope Reference Group

TRIM FILE REFERENCE: F22817
FILE PATH ON SERVER:
P:\STAFF\JSTUBBS\CALLIOPE\CALLIOPE REPORT SEPT 08 FINAL.DOC

DOCUMENT STATUS

Draft                   Ready for Review            X  Final

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RELATED MATERIAL (OPTIONAL)

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1 Context for this report

In November 2003 Academic Council agreed to introduce compulsory provision of unit outlines with minimum standard requirements. In April 2004 the final report of the first Australian Universities Quality Agency audit of UWA (undertaken a year earlier) echoed Council’s resolution and included the recommendation that:

The University of Western Australia require unit outlines for all units be developed in accordance with their good practice template and made available to students in a timely fashion. (Recommendation 7)

In November 2004 the University’s Teaching and Learning Committee further supported Academic Council’s decision with the introduction of a good practice checklist.

In April 2006 the University established Calliope as central facility for the provision of unit outlines online. Two years later, following only limited take-up, the Calliope Reference Group (CRG) was established to provide oversight of the facility, with oversight to include:

- Review and consideration of the management of Calliope;
- Aims of Calliope, both current and evolving;
- Support of Calliope, including financial and technical;
- Content management and appropriate access to Calliope;
- Information management requirements of the system.

In order to move forward on the issue of retention or decommissioning of Calliope, at its May 2008 meeting the Calliope Reference Group requested information on the purpose, timeline and clientele for the Handbook and for unit outlines with a view to formulating common elements.

The Reference Group generally agreed that one central repository for uploading unit information would be preferred. The Group asked whether Calliope could form an optimal base for all unit information or whether an alternative system, closely aligned to the student portal, would need to be developed.

This report in turn describes:

- The University’s on-line handbook (Section 2)
- The creation of Word-based unit outlines and their publication via Faculty websites, and thirdly (Section 3)
- The publication of unit outline information in Calliope. (Section 4)
- A possible replacement for Calliope and the On-line handbook (The replacement will not be available for at least 2 years) (Section 5)
- Recommendations are presented in Section 6.

Any resolutions of the Calliope Reference Group will be framed as recommendations to be considered by the University Teaching and Learning Committee and in turn Academic Council.

The University’s second AUQA audit is scheduled for May 2009. No doubt the auditors will revisit the issue of unit outlines at this time.
2 On-line University Handbook

2.1 Introduction

Publication and management of The University of Western Australia’s official Undergraduate Handbook and Postgraduate Handbook is the responsibility of the Publications Unit. The annual review and development process is coordinated by the Publications Manager and her team working in conjunction with a range of groups including most significantly the Legislative Committee and Faculty and School administrators.

The authoritative and comprehensive version of the handbook is published on-line and contains full details of the University’s courses, units, University and faculty general rules and other information relevant to students. An abridged version, including a number of subsections, is published in hard copy and is derived from the on-line edition. The handbook is published for the guidance of students as well as staff members who are required to advise enrolling and re-enrolling students.

The handbook has been published on-line for at least eleven years. The handbooks of previous years are still accessible online.

2.2 Content Management System

In 2003 the on-line handbook was re-developed in the My Source Classic version of the University’s Content Management System (CMS). The re-development includes a unit template that enables school and faculty staff to create and maintain information about all officially approved units. The template comprises ~23 publishable fields and a number of others used in the administration of the system. Limited formatting of field content (e.g. heading styles, font, sizing, bolding, italicising, underlining, and hyper linking) is readily achievable. More sophisticated presentations and layouts including tables, bullets and auto numbering are difficult to achieve in the My Source Classic template and typically avoided.

The CMS unit template is managed (and further developed when required) by the Publication Unit’s Information Systems Officer. The template includes a number of smarts. For example all unit codes automatically hyper link; information about unit coordinators links to the University Contact Directory; the allowable data values in certain field are limited to those available in a pre-determined drop down list and navigating away from a Handbook unit entry to the On-line Timetable is achieved in context.

The Information Systems Officer (ISO) manages the access that is provided to approximately 60 faculty and school staff. Faculty and school users are given access to a set of units. There is no straightforward way to provide a fine grained security model that would support individual members of academic staff having access to their units, and only their units, as for many units the name of the unit coordinator is unknown at the time that the Handbook is compiled.

Significant training is required before anyone is allowed access. The ISO provides refresher training to experienced users and comprehensive support to novice users. The ISO is also available to investigate and resolve difficulties experienced by system users. For those unfamiliar with My Source Classic, among a number of features the Safe Edit facility can often be misleading.

Nonetheless, at this stage the Publications Unit has no plans to migrate the Handbook facility to My Source Matrix, the new object oriented CMS, or other platform. The ISO advises that My Source Classic provides all functionality currently required.

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1 The Publications Unit is part of the Division of Public Affairs within the Registrar’s Office.
2.3 Annual Publication Cycle

Annual updating of the unit section of the Handbook commences in April each year. The index to the 2008 University Handbook lists nearly 2500 units that are approved for offering.

The process is timed to coincide with the end of the annual legislative cycle and comprises two rounds:

- **1st Round** until end of May for staff in Schools and Discipline Groups to review existing content and create new information.
- **2nd Round** through June and part of July for Faculty reviewers.

From early July until October staff in the Publications Unit, including a number of professional editors, undertake a comprehensive review of all content including checking syntax and grammar, looking for inconsistencies between units and validating all unit rules (i.e., prerequisites, co requisites, incompatibles and notes where applicable). All content must be authorised before it is published.

The annual updating exercise concludes late in October with publication of the next year’s handbook in time for its use by students who are planning their re-enrolment for the next academic year.

2.4 Other uses of Handbook Unit Information

Early in August each year Handbook course and unit information is used to notify the Department of Education, Employment and Workplace Relations (DEEWR, formerly DEST) of the University’s offerings for the following year. Notification is a requirement under the Higher Education Support Act (2003).

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2 A relatively small proportion of the ~2500 units are component parts of a unit that straddles more than one teaching period, e.g. MEMS8408 Dissertation Part 1 & MEMS8409 Dissertation Part 2
In approximately September each year the Student Information Management System Group take a slice of all new and changed course and unit information from the Handbook to enable updating of the University’s Student Information Management System.

Also, annually the two science faculties take a data extract and use the information as the basis of the Science Courses booklet.

Another significant output from the Handbook CMS is a web service that retrieves course and unit information for re-use within other web applications. For example, the Future Students’ Website pulls course and units information from the Handbook.

Future Students’ website with content pulled dynamically from the Handbook: On the left, content for Australian students; on the right a page for International students

Course and unit information published via the CMS can also be pulled into other CMS sites.

Faculty of Law Student Net webpage with unit content drawn dynamically from the Handbook. The Unit Outline link (top right) navigates to the Word-based unit outline for LAWS3385

The new Student Portal includes a portlet that publishes a student’s current enrolment. This portlet includes hyper-links to the Handbook for all units and, where relevant to WebCT and the CMS
My Units portlet from the new Student Portal. The unit title hyperlinks to the corresponding Handbook unit entry. If the unit includes content in Web CT, or the Course Materials Online or Lectopia systems links are active. The My Units portlet does not currently link to Calliope.

<table>
<thead>
<tr>
<th>Unit Code</th>
<th>Unit Title</th>
<th>Period</th>
<th>Link to</th>
<th>Link to</th>
<th>Link to</th>
</tr>
</thead>
<tbody>
<tr>
<td>HXES3351</td>
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<td>SEM-2</td>
<td>WebCT</td>
<td>CMO</td>
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<td>WebCT</td>
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<td>SEM-2</td>
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</tbody>
</table>

### 2.5 Further development

The CMS Handbook unit template could be extended to encompass all information required for inclusion in a unit outline with different parts of the template available for updating at different times of the year and potentially to different people.

This approach is not recommended, at least while the Handbook remains in the My Source Classic CMS, for a range of reasons including:

- Limitations with the user interface
- Limitations with the security model, and
- The high level of training and administration required.

### 2.6 Summary

Unit information has been published on-line via the Handbook for at least 11 years and via the My Source CMS for the last 5 years.

The Handbook development cycle has a long lead time extending over seven months. Unit information therefore is required up to fifteen months ahead of teaching.

Users of the Handbook system back-end require significant training and support. The user interface has limitations and is not overly intuitive.

The published Handbook is of a uniform high standard. It serves several purposes including as an information source for re-enrolling and enrolling students and a statutory requirement to notify Government.

Information prepared via the Handbook is also re-used in a number of other systems and situations including Calliope and the Future Students' Website.
3 Unit Outlines

3.1 Introduction

In November 2004 Teaching & Learning Committee endorsed a checklist for unit outlines to be published on-line. Previously students could only expect to be provided with an Assessment Mechanism Statement providing details of the way in which the final result for a unit was arrived at. The new checklist provided for publication of an extended set of information including a number of derived elements, additional mandatory elements as determined by Academic Council Resolution 118/03, some recommended and some optional elements.

In the period following schools and faculties have progressively developed their approach to publishing unit outlines. Unit outlines, in most cases, are developed in Microsoft Word and published online via web pages and/or within WebCT as .RTF or .PDF documents.

Unit outlines are required within the first two weeks of the teaching period in which units are offered. It should be noted that excluding units used to record the candidature of research students and those used to record the enrolment of UWA student undertaking cross institution and study abroad studies, in 2008 students are enrolled in 2770 unit offerings representing 2332 unique unit codes. In Semester 1, 1220 units offerings had enrolments; in Semester 2, students were enrolled in 1242 unit offerings; the balance were enrolled in unit offerings in non-standard teaching periods. It is unclear how many unit outlines have been published online but it is unlikely to be anywhere near these numbers. The table below lists the number of units with enrolments taught by schools within the Faculty of Engineering, Computing & Mathematics and the Faculty of Life & Physical Sciences in Semester 1 & 2. In no case was it possible to find a unit outline for all units.

<table>
<thead>
<tr>
<th>School</th>
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<tr>
<td>Civil &amp; Resource Engineering</td>
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<td>26</td>
</tr>
<tr>
<td>Computer Science &amp; Software Engineering</td>
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<tr>
<td>Electrical, Electronic &amp; Computer Engineering</td>
<td>30</td>
<td>38</td>
</tr>
<tr>
<td>Environmental Systems Engineering</td>
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<td>11</td>
</tr>
<tr>
<td>Mathematics &amp; Statistics</td>
<td>38</td>
<td>33</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
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<td>46</td>
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<tr>
<td>Faculty of Life &amp; Physical Sciences</td>
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</tr>
<tr>
<td>Anatomy &amp; Human Biology</td>
<td>21</td>
<td>28</td>
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<tr>
<td>Biomedical, Biomolecular &amp; Chemical Sciences</td>
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<td>86</td>
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<td>Physics</td>
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<td>24</td>
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<td>45</td>
<td>47</td>
</tr>
<tr>
<td>Sport Science, Exercise and Health</td>
<td>36</td>
<td>32</td>
</tr>
</tbody>
</table>

3.2 Faculty of Architecture, Landscape and Visual Arts

Studio and Unit Guides are published via password protected pages on the Faculty’s Student Net Website (http://www.alva.uwa.edu.au/studentnet) hosted in the new My Source Matrix CMS. Accordingly it was not possible to see whether a standard template has been adopted or whether an outline had been published for all units. The one hard copy unit outline reviewed, ARCT2203 for Semester 1, 2008, incorporated some of the elements specified in...
the checklist, but not all. Furthermore the content differed substantially and materially from the 

A review of the Faculty’s studio guide checklist reveals broad conformity with the Teaching & 
Learning Committee endorsed checklist for unit outlines, with some headings adapted to 
better align with the nature of a studio-based unit and additional faculty-specific material 
recommended. 

3.3 Faculty of Arts, Humanities & Social Sciences 

The Faculty’s website is currently hosted in the My Source Classic CMS. No unit outlines 
could be found on either a central web page or on any of several discipline websites 
examined. All unit listings published on discipline webpage linked through to the University 
Handbook only. 

NB: 

The Handbook unit entry for ENGL1111 (http://units.handbooks.uwa.edu.au/units/engl/engl1111) differs in materials ways 
from the Calliope entry for the same unit (http://www.unitoutlines.uwa.edu.au/Units/ENGL1111/SEM-1/2008). Information in 
the Calliope entry is also repeated under the ‘Unit description’ and Learning outcomes’ headings. 

Similarly information in the Calliope entries for ENGL1112, ENGL1113, ENGL1114; 
ENGL1115; ENGL2206 ENGL2213, HIST1100, HIST1111, HIST1122, HIST1152; 
and HIST2219, is repeated under the ‘Unit description’ and Learning outcomes’ headings. 

Several other AHSS units published in Calliope present less, rather than more, 
information than their Handbook counterparts (e.g. HIST2249). 

3.4 UWA Business School 

Unit outlines are published via the Faculty’s Student Net Website 
(http://www.business.uwa.edu.au/studentnet/outlines) in seven groups (Undergraduate, 
Postgraduate, MBA, Manila MBA, Singapore MBA, GDBA & Shanghai). The longest list, 
comprising undergraduate units, extends over 9 web pages. There is no search facility, rather 
users select a group and simply scroll through the list which appears sorted in unit code order 
(i.e. BUSN7403 Research Planning and Development S1 2008; BUSN7661 Research 
Methodology S1 2008; EBUS8504 Electronic Business S2 2008, etc.) Unit outlines that are 
incorrectly or only partially named (e.g. Artificial Intelligence in Business which has its unit 
code – INMT7526 – omitted; ACCT7440 Management Accounting Issues Perspectives S1 
2008 & ACCT7462 Accounting, Organisations and Society S2 2008 which are published in 
the undergraduate section instead of the postgraduate list) are incorrectly placed. 

The Business School has developed a standard unit outline template which appears widely 
adopted. The template is based closely on the checklist for unit outlines endorsed by the 
Teaching & Learning Committee. In addition to all derived and mandatory fields, the Business 
School template includes the recommended and optional fields, including a number of 
additional sections that reflect recent initiatives (e.g. ACE [where appropriate], Acknowledging 
sources of information [in addition to a section on Ethical Scholarship, Academic Literacy and 
Academic Misconduct] and Business IRIS [where appropriate]. The template also includes a 
copyright statement. 

Unit outlines developed in accordance with this template are typically extensive. The outline 
for INMT7526, for example, extends to 20 pages. 

It does not appear that these extensive unit outlines have been copied into Calliope or 
Outward. The corresponding entries for INMT7526 in these systems are short.
3.5 Faculty of Education

The Faculty’s website has recently migrated to the new My Source Matrix CMS, has adopted the new corporate visual identity and been restructured to include Student Net web pages. (One section for students studying in Australia, another for students in Hong Kong and a third for Singapore)

No unit outlines could be found on any of the Student Net web pages. All unit listings published linked through to the University Handbook only.

The Graduate School of Education has developed a standard unit outline based closely on the checklist for unit outlines endorsed by Teaching & Learning Committee. It is unclear whether the template has been widely adopted.

3.6 Faculty of Engineering, Computing & Mathematics

The Faculty’s website has recently migrated to the new My Source Matrix CMS, has adopted the new corporate visual identity and restructured to include Student Net web pages. No unit outlines could be found on any of the Student Net web pages. All unit listings published in the Faculty’s Study Guides pages link through to the University Handbook only.

There are six schools within the Faculty. Each takes a different approach to providing unit outline information. Within each school the information provided about units is highly variable:

Civil and Resource Engineering – The School’s website includes a set of pages headed ‘On-line Teaching Resources’ with individual pages established for each unit. The linked unit outlines for several units examined were brief and omitted many of the elements in the Teaching & Learning Committee endorsed checklist.

NB: the unit outline for CIVL2110 had not been updated from 2007; the outline CIVL3140 failed to load

Computer Science and Software Engineering – The School website includes a series of pages within the Current Students’ section that list units grouped by teaching period (Semester 1, Semester 2) and presented in an integrated list (Limited to undergraduate and honours units). For each unit there is a link to a specific unit page and a specific unit outline. The unit outline is published as a web page rather than a file that can be downloaded.

NB: Information published in respect of the unit CITV1200 differed across the several systems examined. For example:

- Handbook: http://units.handbooks.uwa.edu.au/units/cits/cits1200 The Unit Coordinator is recorded as: ‘contact the School of Computer Science and Software Engineering’

- Calliope http://www.unitoutlines.uwa.edu.au/Units/CITS1200/SEM-2/2008 The Unit Coordinator is recorded as Dr Peter Kovesi

- The unit page on the School website http://undergraduate.csse.uwa.edu.au/units/CITS1200/ The Unit Coordinator is recorded as Dr Nick Spadaccini

- The unit outline on the School website http://web.csse.uwa.edu.au/current/outlines/cits1200 The Unit Coordinator is recorded as Dr. Du Huynh

Electrical, Electronic and Computer Engineering – The School website homepage includes a navigation link to a listing of all units. Pages have been established for each unit offered. Within each page a link is provided to the unit outline. The outlines reviewed provided only very limited information (c.f. ELEC1300; ELEC3306; SCIE1109)

Environmental Systems Engineering – The School website @ http://www.sese.uwa.edu.au/teaching/undergraduate_program/unit_resources/unit_outlines provides a listing of all undergraduate taught units. Units are identified as either SESE
Semester 1, SESE Semester 2, SESE Full-year or Other (i.e. a unit taught by another UWA school but recommended / required by students undertaking Environmental Systems Engineering.

For each unit links are provided. For SESE Semester 1, SESE Semester 2 and SESE Full-year links are provided to the Handbook unit entry and to a brief description of the unit, its timetable and other on-line resources. In the case of the unit ENVE1601, the on-line resources included a brief unit outline document. Outlines were not obviously available for all SESE units. Some may have been published in WebCT or elsewhere.

Unit outlines (or any other online resources) were not published for most ‘Other’ units (e.g. BIOL1130; EART2221; EART2222, ENVE3607, ECON3322).

NB: BIOL1130 is a unit offered by the School of Plant Biology. The School publishes a unit outlines webpage @ http://www.plants.uwa.edu.au/for/current_students/unit_information . An error was returned on all 21 unit outline links:

Not found

The requested URL /__data/page/88361/PLNT2203_Aquatic_Botany.pdf was not found on this server.

Mathematics and Statistics – The School website @ http://www.maths.uwa.edu.au/Units/main_units_view publishes a list of units grouped by level and teaching period with links to very brief unit descriptions and associated on-line resources. Amongst these resources is published a .pdf unit outline. No standard approach has been adopted. Some outlines are very brief e.g.


A link is provided to the equivalent Handbook unit entry, and in some cases further links are provided. These further links end in a variety of outcomes, e.g.

MATE1412 http://www.mech.uwa.edu.au/unit/MATE1412/ - goes to an empty directory

MATE3413 http://www.mech.uwa.edu.au/unit/MATE3413 - access is forbidden, presumably because users must be authenticated

MATE4411 http://www.mech.uwa.edu.au/fyp/ - access to an extensive website

MCTX3420 http://www.mech.uwa.edu.au/mechatronics/MD/ a unit website

3.7 Faculty of Law

Unit outlines are published via the Faculty’s Student Net Website http://www.lawstudents.law.uwa.edu.au/undergrad/units . The listing is in unit title alphabetic order. A hyper link takes the user to the Handbook unit entry which has been pulled into the Law website and hence adopts the Law look and feel.

Further links are provided to a set of Unit Resources including a Unit Outline Microsoft Word document. The Faculty of Law has developed a unit outline template incorporating the features prescribed in the Teaching & Learning Committee endorsed checklist. While it is used by some units, others are yet to adopt it. For example:


LAWS3351 http://www.lawstudents.law.uwa.edu.au/undergrad/units/laws3351 no unit outline

3.8 Faculty of Life & Physical Sciences

Unit outlines are published via the Faculty’s Student Net Website [http://www.science.uwa.edu.au/studentnet](http://www.science.uwa.edu.au/studentnet) grouped by school.

Anatomy & Human Biology – in July, 13 1st, 2nd & 3rd level unit outlines were published, all conforming to a standard unit outline template based on the Teaching & Learning Committee endorsed checklist. By 16th September all had been removed (c.f. [http://www.science.uwa.edu.au/studentnet/outlines/anatomy](http://www.science.uwa.edu.au/studentnet/outlines/anatomy)) (NB: The School had 21 Semester 1 unit offerings and 28 Semester 2 unit offerings with enrolments.)

Biomed, Biomolecular & Chemical Sciences – grouped by discipline, approximately 60 unit outlines, almost all of which conform to a standard unit outline template based on the Teaching & Learning Committee endorsed checklist. (NB: The School had 75 Semester 1 unit offerings and 86 Semester 2 unit offerings with enrolments.)

Physics – unit outlines conform to a standard unit outline template based on the Teaching & Learning Committee endorsed checklist

Psychology – as above

Sport Science – as above

3.9 Faculty of Medicine, Dentistry & Health Sciences

The Faculty has developed a unit outline template based on the Teaching & Learning Committee endorsed checklist. However it appeared that no unit outlines are published on a public website. The Faculty has authenticated logins and makes extensive use of WebCT. It was therefore not possible to gauge the extent to which the Faculty’s standard unit outline template has been adopted.

3.10 Faculty of Natural & Agricultural Sciences

The Faculty advises current students to access Calliope for all unit outlines. .PDF and similar formats are no longer available. Unit outlines for the School of Earth & Geographical Sciences viewed in Calliope appear to have been developed using a standard unit outline template based on the Teaching & Learning Committee endorsed checklist

NB: None of the web addresses in the Teaching & Learning Responsibilities Section of the Earth & Geographical Sciences unit outlines presented in Calliope were active.

3.11 Summary

Unit outlines are published for students who are already enrolled in the unit and are required to be made available by the end of the second week of the teaching period.

Unit outlines, therefore, are not published for the benefit of students seeking to make enrolment choices.

Individual Faculties have taken a range of approaches to publishing:

- ALVA Studio and Unit Guides are published via password protected pages on the Faculty’s Student Net Website. It would appear that further work on developing and implementing a standard unit outline template is required.
- AHSS appears not to publish any unit outlines on-line via either Faculty or School web pages. Unit information in these locations is confined to handbook entries. A consistent Faculty-wide approach to publishing unit outlines that conform to the approved standard is required.
- The UWA Business School has developed a standard unit outline which has been widely adopted. Unit outlines are published via the Faculty’s Student Net Website. A number of unit outlines are incorrectly located.
• The GSE appears not to publish any unit outlines on-line via Faculty web pages. While a standard unit outline has been developed, it is unclear whether it has been widely adopted. A consistent Faculty-wide approach to publishing unit outlines that conform to the approved standard is required.

• Publication and management of unit outlines within the FECM is devolved to School level. Each of the Faculty’s six schools takes a different approach to providing unit information. None of the approaches meets the standard endorsed by the Teaching & Learning Committee. A consistent Faculty-wide approach to publishing unit outlines that conform to the approved standard is required.

• Law unit outlines are published via the Faculty’s Student Net Website. Some, but not all, unit outlines comply with the standard endorsed by the Teaching & Learning Committee. A consistent Faculty-wide approach to publishing unit outlines that conform to the approved standard is required.

• FLPS unit outlines are published via the Faculty’s Student Net Website grouped by school. Most conform to the standard endorsed by the Teaching & Learning Committee. All Anatomy & Human Biology unit outlines have recently been removed.

• FMDHS has developed a standard unit outline. Unit outlines, it is understood, are published on password protected web pages and via WebCT.

• FNAS unit outlines are developed on a standard outline. Until comparatively recently they were published on Faculty web pages. Unit outlines are now only available in Calliope.

• Unit outline file formats encountered include .PDF (not recommend difficulties experienced by some screen readers); .RTF, Word files and a variety of web pages. Not all the web page unit outlines included a printer friendly option.

• Publishing .RTF unit outlines to CMS web pages is a relatively easy and quick procedure and ought to be a minimum standard readily achievable by all Faculties. Recommended characteristics include:
  o Publishing outlines in unit code order rather than by title as use of unit code is a more reliable index
  o Including unit code, unit title & teaching period in the name of the unit outline file
4 Calliope

4.1 Introduction

Calliope was launched in 2006. The system was developed and is managed by the UWA Centre for Software Practice. It is built around a Microsoft SQL 2005 database. The Website runs ASP.Net 2.0 on an IIS Web Server. The computer operating system is Windows Server 2003.

Following endorsement by the University Teaching & Learning Committee of a checklist of unit outline information, the system is designed to present students with an extended but standard set of mandatory, recommended and optional information. In keeping with Academic Council resolution 118/03 the uploading of unit outline information by Schools and Faculties into Calliope is optional. Currently Calliope includes extended unit outlines for:

- Faculty of Arts, Humanities & Social Sciences (some)
- Faculty of Law (some)
- Faculty of Life & Physical Sciences (some)
- Faculty of Natural & Agricultural Sciences (all undergraduate?)
- Other?

Recently the public interface to the Calliope system has adopted the University’s new corporate visual identity.

4.2 Creation & Management of Calliope Unit Outlines

Currently, once a year Calliope is seeded with teaching period and unit offering information imported from the Student Information Management System and augmented with unit information imported from the UWA Handbook. The information sourced from the Handbook is copied to the Calliope database rather than accessed via the Handbook web service. Changes made in the University Handbook are not reflected in Calliope without re-importation. However copying (rather than pulling) Handbook information allows updating where appropriate (e.g. details of Unit Coordinators.)

Calliope public access login, accessed 22 September 2008
Information in derived fields cannot be updated thereby ensuring data integrity. The creation and editing of information in recommended and optional unit outline fields is achieved through the Calliope WYSIWYG interface by cutting and pasting items / fields one at a time from unit outlines developed in Microsoft Word. All Calliope fields into which data is uploaded appear to be text fields. There are no lists of values or other data quality validation techniques available. There is no loading utility for multiple fields or multiple units.

Unit outline information is grouped in six sections: Unit Details; Contact Details; Unit Rules; Unit Description; Assessment; and Textbook(s) & Resources.

Information is typically attractively presented under a series of headings and sub headings which have been adapted to suit the particular requirements of difference faculties and schools.

Presentation styles include tables, bullets and numbered lists where appropriate.


A mass edit facility in provided for writing a single piece of data across particular sections of all unit outlines belonging to a School or to a Faculty.

Calliope also incorporates the concept of a policy that can be tailored to individual schools and faculties. The policy defines what a "complete" unit outline should consist of were each section can be labelled Mandatory, Recommended or Optional. Sections labelled Mandatory are not enforced; hence incomplete unit outlines can be published. There is no concept of approval or authorization of uploaded / edited material.

While the system administrator can provide individual members of staff with access to enable them to update their unit information directly, few have chosen to do this. Instead, with funding provided by the University Teaching and Learning Committee, CSP is currently offering a service to schools to load (cut and paste) unit outlines into the system.

The University would prefer management to be in-house and either:

- devolved with appropriate controls to faculties and schools, or
- allocated to an appropriate central administrative division (e.g. Student Services)

Given that unit outlines must be available to students by the end of the second week of teaching, any process involving a central administrative division that is designed to centrally manage a large number of unit outlines in a timely manner would need to be founded upon a series of highly efficient partnerships.

4.3 Viewing unit outlines

All unit outlines, irrespective of their school or faculty, are accessed via the same URL: [http://www.unitoutlines.uwa.edu.au/](http://www.unitoutlines.uwa.edu.au/)

Unrestricted unit outlines can be view by all users of the system. A staff user view enables viewing of both unrestricted and restricted unit outlines. A student user view can restrict viewed unit outlines to only those units the student is enrolled in.

A number of parameters are provided to query unit outlines including:

- Unit code or Unit title
- Unit level
- Teaching period, and
- Campus

All units matching the submitted parameters are returned in a list. Individual unit outlines selected from the list are viewed at the click of a button. Currently many of the unit outlines returned are nothing more than the corresponding handbook entry re-formatted with additional sections (Unit Description; Assessment; and Textbook(s) & Resources.) left blank.
For example go to Calliope and view the details for ABUS1190 (http://www.unitoutlines.uwa.edu.au/Units/ABUS1190/SEM-1/2008)

Many of the fields are empty

Some of the data is misleading / wrong (e.g. Mode of delivery: Unit Website)


4.4 Webtrends usage statistics for Calliope

Usage of the Calliope system has been monitored since mid-April 2008. The following summarises usage:

For the period 18 April to the 10 August, 2008, Calliope received 22,632 page views.

Almost 55% of all page views were of the home page or viewing the unit list page (Each use of the unit search feature records a view of the unit list page.)

Staff editing outlines (content editing screen and staff login screen views) accounted for almost 16% of page views (Down from 28% in April – May).

There were 1,868 unique visitors to Calliope for the period 18 April to the 10 August, 2008, 1,610 (86.19%) of whom only visited the site once.

In four months just over 26% (5,970) of views were of actual unit outline content.

These figures strongly suggest that Calliope is not / in not yet seen by students as a vital resource.
<table>
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<th></th>
<th>Staff Login</th>
<th>/StaffLogin.aspx</th>
<th>321</th>
<th>692</th>
<th>3.06%</th>
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<td>/Units/Edit/EditContent.aspx</td>
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<td>3594</td>
<td>15.88%</td>
</tr>
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<td>99</td>
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</tr>
<tr>
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<td>Unit outline management system</td>
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<td>125</td>
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</tr>
<tr>
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<td>Unit outline management system</td>
<td>/Units/laws3331</td>
<td>41</td>
<td>45</td>
<td>0.20%</td>
</tr>
</tbody>
</table>

Table 1 - Top 10 Calliope visited pages
5 An alternative approach

The bulk of unit information published via the Handbook, Calliope and Outward is initially created in Word documents before being cut and pasted or transferred into the publishing system. Given the large number of units involved and the requirement to publish outlines before the end of the 2nd week of teaching any approach that involves manual copying of content and which artificially restricts the number of people who can create and maintain unit outlines will, in all likelihood, create a publishing bottleneck and increase the level of checking that is required. It would be more efficient, therefore, if unit coordinators could author unit outlines within the publishing system.

At this stage a system which would:

- Enable the creation and maintenance of unit outlines directly in a database
- Validate all relevant data and include appropriate quality assurance approvals
- Enabled information to be shared across applications without the need to re-key
- And which staff would be happy to use

...does not exist but is the subject of business and technical investigations being undertaken by the Callista group of ten universities.

Thus far the group has developed a strategy document for the development of new functionality in the Callista Student Information Management System that will address the:

- The creation and maintenance of new course, unit set (i.e. majors) and unit proposals
- Course and unit amendments and publication
- And annual curriculum maintenance
- and undertaken the first of many workshops.
- Seven main business objectives have been identified:
  - Replacement of current manual and ad-hoc methods surrounding the curriculum proposal and amendment processes
  - Creation of a central repository for all curriculum and associated publication data
  - The removal of data entry duplication between an external system and Callista SMS and within Callista SMS, by providing a single entry point
  - Incorporation of workflow (via an electronic workflow system) in the proposal, amendment and curriculum maintenance business processes
  - Direct staff involvement in the process required for curriculum proposals and amendments
  - Compliance with University curriculum proposal and amendment policies, and
  - The provision of more complete and consistent information to students and other stakeholders (e.g. institution staff, Government and accrediting bodies).

The new functionality will be developed through 2009 (and possibly into 2010). Workflow automation will be key to the solution which will be built using JSF, BPEL and other contemporary technologies. What is not yet clear is whether these technologies offer a sufficiently rich and easy to use interface that members of academic staff would be willing to author their unit outlines directly in the new system rather than continuing to use M’SofT word and having someone then cut and paste content into a publishing system.
6 Recommendations

While the longer term requirement to develop a replacement for the Online Handbook and Calliope is being addressed, the following recommendations are made:

1. Each Faculty must decide whether its unit outlines are to be published as .RTF files via the Faculty’s Student Net website only or published via Calliope only. To avoid the possibility of inconsistent information, individual unit outlines should not be published to Faculty web pages and in Calliope.

2. Each Faculty must formulate and implement prior to 1st Semester 2009 a process to ensure quality of content in unit outlines and that all mandatory information, in accordance with the Teaching and Learning Committee’s checklist, is provided.

3. Faculties that choose to publish unit outlines in Calliope will need to contract services from the Centre for Software Practice.

4. CSP to adjust the Calliope import to ensure that it comprises only those units offered by Faculties choosing to publish unit outlines via Calliope.

5. A simple database comprising the web address for each unit outline (whether a Student Net web page or Calliope) should be developed and this information made available through the existing unit information web service published from the Handbook.

6. The University Website Office, through the redevelopment of all Faculty websites should ensure that all Faculty websites include dynamically generated lists of links to unit outlines within their own websites. The links should point either to unit outlines hosted on their own websites or to unit outlines within Calliope. Students will have one single point to visit to find all outlines for a Faculty.

7. The database of unit outline web addresses should be developed and managed by the SIMS team with some web service development by the University Website Office. Regular link checks should be run to ensure the availability of outlines. A single list of all unit outlines would be available for quality assessment processes.

8. The use of web services for the publication of this information would facilitate the presentation of a list of links to unit outlines within the Student Portal personalised according to a student’s enrolment - rather than the current links to Handbook entries.

9. Where unit outlines are published as .RTF files, file names should adopt the following naming convention

   Unit code + unit title + teaching period code and year

   as in: BUSN7403 Research Planning and Development S1 2008

10. The Faculty of Architecture, Landscape & Visual Arts should:

    a. Review its unit outline template to ensure that it better conforms with the Teaching & Learning Committee endorsed checklist for unit outlines while at the same time retaining where relevant those features and adaptations suited to studio-based units.

    b. Confirm that an up to date unit outline has been developed for all taught units in which students are enrolled.

11. The Faculty of Arts, Humanities & Social Sciences should:

    a. Develop a unit outline template that conforms with the Teaching & Learning Committee endorsed checklist

    b. Ensure a unit outline is developed in the template for all taught units in which students are enrolled.
12. The UWA Business School should
   a. Implement a quality assurance process to ensure that all unit outlines published via the Faculty’s Student Net Website adopt the standard naming convention, are saved as .RTF files and published in the correct group.
   b. Ensure a unit outline is developed for all taught units in which students are enrolled.

13. The Faculty of Education should
   a. Ensure a unit outline is developed in the Faculty’s standard template for all taught units in which students are enrolled.
   b. Determine whether GSE unit outlines will be published only in Calliope (in which case the Faculty will need to contract services from the Centre for Software Practice), or published only on the Faculty’s Website.

14. The Faculty of Engineering, Computing & Mathematics should
   a. Centralize and standardise its approach to publishing unit outlines.
   b. Develop a unit outline template that conforms with the Teaching & Learning Committee endorsed checklist.
   c. Ensure a unit outline is developed in the template for all taught units in which students are enrolled.

15. The Faculty of Law should
   a. Ensure a unit outline is developed in the template for all taught units in which students are enrolled.
   b. Change its file naming convention to the standard recommended above.

16. The Faculty of Life & Physical Sciences should
   a. Ensure a unit outline is developed in the template for all taught units in which students are enrolled.

17. The Faculty of Medicine, Dentistry & Health Sciences should
   a. Review and confirm that a unit outline is published for all taught units in which students are enrolled.

18. The Faculty of Natural & Agricultural Sciences should
   a. Confirm that a unit outline is published via Calliope for all taught units in which students are enrolled.