Faculty of Veterinary Medicine
Curriculum Review

Report of Curriculum Review Days held on 16-17 December 2009

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1. **Introduction**

1.1 This report provides an overview of the content and outcomes from two curriculum review events at the Faculty of Veterinary Medicine at the University of Glasgow. These events took place on 16th and 17th December 2009. The first event was a full day of consultation and discussion with Vet Faculty course co-ordinators, Associate Dean (Learning and Teaching), Deputy Associate Dean (Learning and Teaching), current students and external individuals representing key stakeholders including Freda Andrews, Head of Education, RCVS, Chris Barker, Society of Practicing Veterinary Surgeons, Fabian Cruden, BVMS 2009 (Past President of GUVMA), Andrew Curwen, XL Vets, Sara Higgins, BVMS 2009 (Past President of GUVMA), Neil Laing, Clyde Veterinary Group, Ivor Lough, Scottish Vet Collaborative, Bill Reilly, President, BVA, Megan Power, DEFRA, and Brian Wright, Veterinary Practice Management Association. A programme for the first day is contained in Appendix A. A list of attendees is available in Appendix B.

1.2 On the second day a shorter meeting was held with Faculty course co-ordinators, the Associate Dean (Learning and Teaching) and the Deputy Associate Dean (Learning and Teaching), to facilitate further discussion of themes that had emerged from the first day and additional themes to be suggested. A list of participants is available in Appendix C.

1.3 The curriculum review days focused on consulting with colleagues about three areas influencing the curriculum: i) perceptions of how effectively the current veterinary curriculum at the University of Glasgow meets employers’ needs; ii) views of how veterinary education and the veterinary profession will change in the next 5-10 years; and iii) suggestions of how the University of Glasgow will meet the needs of graduates and the profession over the next 5-10 years.
2. How effectively does the veterinary curriculum at the University of Glasgow meet the needs of employers?

2.1 Participants on the first day of the curriculum review were divided into small groups with a mix of representatives, in order to discuss how effectively they thought the veterinary curriculum at the University of Glasgow currently meets the needs of employers. Full notes from these first small group sessions can be found in Appendix D. Groups were asked to prioritise the main points from their small group sessions and these are listed here in Box 1.

Box 1
Session 1: Key points from small groups.

Seminar room 1 group
- There is a need for more clinical experience and practical skills
- A formal policy is needed for capturing employers’ needs for day one

Seminar room 2 group
- Positive that clinical skills are now embedded from first year
- Good breadth to the course: students develop a rounded knowledge
- Students have a lack of understanding of required business skills

Seminar room 3 group
- The transition to the ‘real world of vet practice’ is difficult in terms of business and other skills
- Making connections between theory and practice is not there throughout the current curriculum
- There is some lack of ‘hands on’ skills

Allander room group
- Students need to hit the ground running (confidence/competence)
- Foundation skills are important to prepare for 10 years on
- Importance of keeping passion for the subject
- GU students are viewed as having strong communication skills and clinical knowledge. Poorer on practical clinical skills.

2.2 The small groups demonstrated some agreement amongst the key points they raised. There were two key areas of agreement. The first was the need for more clinical skills in the curriculum, with one group commenting on the positive nature of clinical skills now being embedded from first year. The second area of agreement focused on the need for more business skills for graduates to be able to meet employers’ needs. This also relates to the point about the curriculum needing to support students to develop their competence and confidence to practice.
3. How will the veterinary profession and veterinary education change in the next 5-10 years?

3.1 The participants at the first day of the curriculum review were then re-divided into different small groups, in order to discuss how they thought the veterinary profession and veterinary education will change in the next five to ten years. Full notes from these second small group sessions can be found in Appendix E. Groups were asked to prioritise the main points from their small group sessions and these are listed here in Box 2.

Box 2
Session 2: Key points from small groups.

Seminar room 1 group
- More teamwork in practice
- Flexibility within the curriculum to be able to adapt
- Specialisation to take place after basic degree

Seminar room 2 group
- Learning how businesses work will need to be part of core curriculum
- Flexibility will be needed in our degree
- We need to reduce information overload

Seminar room 3 group
- Integration of information handling, business, management and research skills throughout course
- RCVS Guide to professional conduct to be issued to every 4th year student at the start of their final year and included in their summative assessment

Allander room group
- Setting the bar at the appropriate level for the core UG curriculum, which raises the question of how specialisms should be covered/studied after this?
- Teaching modes need to reflect the way people practice in future
- If we want more clinical skills what will this mean for future staff numbers? e.g. teaching clinical skills to classes of 140

3.2 Among the key points raised by the groups, there was some agreement around three issues. The first was the need for future curricula to be flexible in order to be able to adapt to changes in the profession. The second point of agreement was that learning how relevant businesses work will need to be integrated into the core curriculum. The final point of agreement was that specialist knowledge should be taught after completion of a basic veterinary degree.
### 4. How will the University of Glasgow ensure that it meets the needs of graduates and the veterinary profession over the next 5-10 years?

#### 4.1 After lunch on the first day of the curriculum review small groups were again reallocated so new groups worked together in order to discuss how the University of Glasgow will ensure that they meet the needs of graduates and employers over the next five to ten years. Full notes from these third small group sessions can be found in Appendix F. Groups were asked to prioritise the main points from their small group sessions and these are listed here in Box 3.

<table>
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<tr>
<td><strong>Session 3: Key points from small groups.</strong></td>
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<tr>
<td><strong>Seminar room 1 group</strong></td>
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<tr>
<td>• View students as customers - listen to and act on feedback</td>
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<tr>
<td>• Develop day one competencies and develop syllabus around this</td>
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<td>• More integration between vets and non-vets to keep subjects relevant</td>
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<td><strong>Seminar room 2 group</strong></td>
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<tr>
<td>• Integration of clinical and non-clinical throughout the curriculum without losing scientific vigour</td>
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<tr>
<td>• Include and allow flexibility in the curriculum</td>
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<tr>
<td>• Include business skills and promote students’ value as graduates</td>
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<tr>
<td>• Maintain enthusiasm of teaching staff (reward them?) and keep improving teaching methods</td>
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<td>• Improve the promotion of Glasgow to prospective students to make it stand out (e.g. competition with Liverpool)</td>
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<tr>
<td><strong>Seminar room 3 group</strong></td>
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<tr>
<td>• Include more first opinion experience</td>
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<td>• Clinical skills course with vertical integration throughout the course with all other subjects hanging from it</td>
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<tr>
<td>• Planned programme of PG teaching</td>
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<tr>
<td><strong>Allander room group</strong></td>
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<tr>
<td>• Need to invest to be distinctive</td>
</tr>
<tr>
<td>• Can we meet day 1/year 1 competencies without using all the time within the existing programme?</td>
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<td>• EMS pivotal – within some RCVS constraints – but changing our viewpoint to see this as an opportunity?</td>
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<tr>
<td>• Integration of aspects of the curriculum e.g. physiology alongside relevant clinical skills</td>
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<tr>
<td>• Balance depth and breadth in the curriculum</td>
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#### 4.2 Many key issues were raised by participants in these groups suggesting **diverse views as to the preferred nature of a future veterinary curriculum**. Two groups were keen to ensure that the future curriculum should **integrate clinical skills with other subjects in the curriculum**.
5. **Key messages from external participants**

5.1 After the small group session discussions, the external participants in the curriculum review were all invited to provide key messages that they wished to share from having participated in the review.

5.2 Chris Barker, from the Society of Practising Veterinary Surgeons argued that the curriculum needs to provide students with a reality check of what real practice is like. He also suggested that the university needs to encourage a ‘can do’ attitude among students.

5.3 Andrew Curwen, from XL vets, suggested that the curriculum review does not need to be a compromise. He encouraged staff to ‘make it what you want it to be’. He also argued that just because something is difficult does not mean it can’t be done. His key message was for staff at Glasgow to make it happen rather than waiting for something to happen.

5.4 Bill Reilly, President of the British Veterinary Association advised that the University should consider integrating EMS within the curriculum.

5.5 Neil Laing, from Lanark Farm Animal Practice advised trying to make production animal medicine more attractive to students.

5.6 Brian Wright, from the Veterinary Practice Management Association underlined the need for graduates to develop competence in people skills and business skills.

5.7 Ivor Lough, from the Scottish Vet Collaborative emphasised the importance of integrating working in practice throughout the curriculum.

6. **Key messages from internal participants**

6.1 On the second day of the curriculum review, internal participants had the opportunity to review the themes that emerged from the first day and to contribute anything they thought had been missed in previous discussions and comment on the relative priority of the points made. Notes that were taken from these discussions can be found in Appendix G. Here the main points of discussion are outlined.

6.2 One of the common threads of discussion over the two days was the importance of starting the development of clinical skills from earlier in the curriculum. There were also suggestions to align clinical and non-clinical teaching more closely. It was noted that at Nottingham University all staff teach clinical skills and that this might be something to be considered by University of Glasgow. Participants agreed that at Glasgow there was a need for more nurses and that they could contribute to clinical skills teaching.

6.3 A similar theme emerged about the need to integrate business skills within the curriculum, although this point was not unanimously agreed with some concern about the diverse range of business skills needed for University of Glasgow graduates’ diverse employment destinations.
6.4 A consistent theme was a concern about **overload** and overlap within the current curriculum. Specific comments were made that the third year of the current programme is overloaded and that this must be addressed. There was concern that some specialist knowledge is not necessary within the core undergraduate curriculum and that these more specialist areas could be taught within postgraduate courses. Many suggestions were made to change **curricular structures** and these included: shifting things between the years to make some space; restructuring the curriculum around semesters rather than years; making 80% of the curriculum core and 20% elective and flexible; having a 5 year intercalated degree; and having summer projects run throughout the year. It was acknowledged that the exercise of mapping the current curriculum would be helpful in addressing issues of overload.

6.5 Other suggestions that overlapped with issues of overload focused on trying to move away from didactic approaches to teaching, towards teaching processes that reflect the ways in which students need to practise in the future and that encourage the development of key skills. **Clinical and business skills** have already been mentioned. Other ideas included promoting **critical thinking skills** and **nurturing confidence** among students. Another point that was raised as a possible teaching approach linked to developing these skills was setting up a Peer Assisted Learning (PAL) scheme where more senior students are involved in teaching students at earlier levels of the course. These courses have been shown to have very positive outcomes in other parts of the University.

6.6 **Extra Mural Studies** (EMS) was the focus of a great deal of discussion on both curriculum review days. There was some concern it was overemphasised and should not dominate curriculum redesign. However, there were also suggestions of incorporating EMS into the curriculum despite some concerns about how this would fit with RCVS requirements. How to quality assure EMS was seen as the key challenge if it became an integral part of the curriculum.

6.7 Participants suggested that **animal husbandry** could benefit from being rebranded within the curriculum. Another suggestion was to split up animal husbandry within other parts of the curriculum.

6.8 Several staff thought that the University of Glasgow will need to consider its **CPD provision** and that this could be a commercial opportunity. This was linked with the idea of having a core curriculum and that specialisms would be taught as postgraduate modules or courses.

6.9 **Assessment** was viewed, both as a useful motivator of students and as a hindrance to learning. It was suggested that the assessment focus might usefully be changed to emphasise more about progress rather than exam performance.

6.10 Participants emphasised the need to design a **new curriculum to inspire students**. This links to the issue raised in 6.4 of offering more flexibility to students to choose to pursue areas of personal interest within a core curriculum as well as offering postgraduate specialist courses.

6.11 The participation of **external stakeholders** on the first day of curriculum review was thought to have been extremely positive. One person suggested
that some consideration should be given to how this external engagement with the vet curriculum at Glasgow could be continued and built upon.

6.12 Finally, there was agreement from many staff present at the second day of consultation that the vet curriculum and staff at the University of Glasgow cannot afford to stand still if the intention is to stay competitive within the current and future context of veterinary education. There is a need to make change.

7. Recommendations for the University of Glasgow Faculty of Veterinary Medicine

The two curriculum review days in December 2009 have raised a wide range of concerns, challenges and suggestions for the future vet curriculum at the University of Glasgow. The main themes that have been raised in sections 2 through to 6 of this document lead to the following recommendations for the future School of Veterinary Medicine.

Recommendation 1.
The curriculum must change if the University of Glasgow is to remain a serious competitor in veterinary education.

Recommendation 2.
Changes to the curriculum need to be assisted by investment of resources and senior staff support in order to be carried out meaningfully and effectively and in order for the curriculum to be distinctive and competitive. Clear managerial support for curriculum change can promote a message that the curriculum, learning and teaching are valued and this can contribute to staff maintaining their passion for teaching their subject.

Recommendation 3.
The design of a new curriculum needs to have flexibility built into it. This should aim to meet two key needs: 1) an increased choice for students to follow areas of veterinary medicine in which they are particularly interested but related to core areas of the curriculum, and 2) a flexible structure to the curriculum which would allow future adaptation of design to respond to changes in the wider international context of veterinary education.

Recommendation 4.
The new curriculum should reduce the current information overload on students. The curriculum should emphasise teaching approaches that enhance students’ critical thinking skills, and reduce the current level of prominence given to content knowledge. The challenge will be to ensure a curriculum that covers a breadth and depth of key subjects and that supports the development of students’ confidence and competence.

Recommendation 5.
Consider removing some specialist knowledge from within the core undergraduate curriculum and aligning the remainder of the curriculum with the necessary day one competencies outlined by the RCVS and other professional bodies. This will support the need to reduce the current undergraduate curriculum overload. As a separate initiative consider setting up a postgraduate CPD programme of specialist courses that are relevant and attractive to alumni and professional colleagues. The University of
Glasgow vets could become known for having one of the best good quality packages of postgraduate specialist courses available.

Recommendation 6.
Clinical skills need to be taught earlier in the vet curriculum and then throughout the rest of the curriculum. Clinical skills should be integrated with other elements and subjects within the curriculum. The emphasis on clinical skills will impact on the need for resources to fund an increased number of staff to teach clinical skills.

Recommendation 7.
A range of business skills should be an integral part of the veterinary curriculum in an attempt to better prepare students for the diverse range of veterinary and related careers they will enter after graduation.

Recommendation 8.
Further discussion needs to take place about the future of EMS. There is currently no consensus as to whether EMS should be an integral part of the curriculum for which the University is responsible. However, the different views expressed saw EMS as either a constraint or an opportunity, dependent upon the different mindsets of participants. It was considered by some that EMS, if reconceived within the framework of a new curriculum, could offer Glasgow some competitive advantage. This requires further exploration.
Appendix A

Programme outline for Vet curriculum review consultation day on 16/12/09

10:00-10:30  Introduction and welcome
             The future political landscape for vet education (Jim Anderson)
             Introduction to BVMS review (David Barratt)

10:35-11:15  Session 1 (4 x mixed groups)
             Perceptions of outcomes for current veterinary education
             How well do current programmes meet employers’ needs?
             (UK, International, Glasgow)

11:20-11:30  Coffee

11:35-11:55  Feedback in lecture theatre

12:00-12:45  Session 2 (4 x different mixed groups)
             The future of veterinary education
             5-10 minute introductory presentation
             Where does veterinary education need to be or go, to meet the needs
             of the profession in the medium term (5-10 years?)
             Links to where we think the profession may be in that time frame.
             Key issues: Omnicompetence/Specialism/International dimensions

12:50-13:10  Feedback in lecture theatre

13:10-13:40  LUNCH

13:45-14:30  Session 3 (4 x different groups)
             How to ensure Glasgow delivers
             10 minute introductory presentation
             How do we get there?
             What would make Glasgow a preferred provider/give students a
             competitive edge?

14:35-14:45  Coffee

14:50-15:10  Feedback in lecture theatre

15:10-15:45  External perceptions
             Invited external participants to offer ‘take home’ messages
             Facilitated discussion:
             - Reaction to panel messages
             - Reaction from the earlier sessions in the day

15:45-16:00  Summary and closing of the day (Jim Anderson)
Appendix B

Participants at consultation day on 16/12/09

Internal Participants
Jim Anderson, Associate Dean (Learning & Teaching)
Maureen Bain, Veterinary Cell Sciences
David Barrett, Deputy Associate Dean (Learning & Teaching)
Sarah Chiodetto, Faculty Secretary
Eileen Devaney, Veterinary Infection & Immunity
Fiona Dowell, Veterinary Cell Sciences
Neil Evans, Veterinary Cell Sciences
Jenny Hammond, Veterinary Companion Animal Sciences
Ian Jeffcoate, Veterinary Cell Sciences
Pamela Johnston, Veterinary Pathological Sciences
Nick Jonsson, Animal Production & Public Health
Clare Knottenbelt, Veterinary Companion Animal Sciences
Sandy Love, Veterinary Companion Animal Sciences
Arlene Macrae, Learning & Teaching Unit
Karen MacEachern, Veterinary Companion Animal Sciences
Lesley Nicolson, Veterinary Infection & Immunity
Jim Parkins, Animal Production & Public Health
Ian Ramsey, Veterinary Companion Animal Sciences
Brian Shiels, Veterinary Infection & Immunity
William Steele, Animal Production & Public Health
Martin Sullivan, Veterinary Companion Animal Sciences
Joyce Wason, Learning & Teaching Unit
Thomas Wittek, Animal Production & Public Health
Lissann Wolfe, Learning & Teaching Unit

Invited 'External' Participants
Freda Andrews, Head of Education, RCVS
Chris Barker, Society of Practising Veterinary Surgeons
Antonia Bomba, Final Year Student
Sophia Bowerman, Fourth Year Student
Gemma Chaters, Fourth Year Student
Fabian Cruden, BVMS 2009 (Past President of GUVMA)
Andrew Curwen, XL Vets
Sara Higgins, BVMS 2009 (Past President of GUVMA)
Sam Kerr, Final Year Student
Neil Laing, Clyde Veterinary Group
Ivor Lough, Scottish Vet Collaborative
Ali MacLeod, Final Year Student
Bill Reilly, President, BVA
Megan Power, DEFRA
Annette Vindenes, First Year Student
Brian Wright, Veterinary Practice Management Association

Learning & Teaching Centre, University of Glasgow
Catherine Bovill
Craig Brown
Mary McCulloch
Amanda Sykes

Clerks
Lumba Chirwa, Learning & Teaching Unit
Fiona Denman, Learning & Teaching Unit
Claire Flanagan, Learning & Teaching Unit
Maureen McNulty, Learning & Teaching Unit
Nicola Morgan, Learning & Teaching Unit
Clarice Scott, Learning & Teaching Unit

Organisational Management
Arlene MacRae, Veterinary Operations Manager
Appendix C

Participants at Consultation Meeting on 17/12/09

Jim Anderson, Associate Dean (Learning & Teaching)
Maureen Bain, Veterinary Cell Sciences
David Barrett, Deputy Associate Dean (Learning & Teaching)
Sarah Chiodetto, Faculty Secretary
Eileen Devaney, Veterinary Infection & Immunity
Neil Evans, Veterinary Cell Sciences
Ian Jeffcoate, Veterinary Cell Sciences
Nick Jonsson, Animal Production & Public Health
Clare Knottenbelt, Veterinary Companion Animal Sciences
Sandy Love, Veterinary Companion Animal Sciences
Arlene MacRae, Learning & Teaching Unit
Karen MacEachern, Veterinary Companion Animal Sciences
Lesley Nicolson, Veterinary Infection & Immunity
Jim Parkins, Animal Production & Public Health
Ian Ramsey, Veterinary Companion Animal Sciences
Martin Sullivan, Veterinary Companion Animal Sciences
Thomas Wittek, Animal Production & Public Health
Lissann Wolfe, Learning & Teaching Unit

Facilitators
Catherine Bovill, Learning & Teaching Centre, University of Glasgow
Amanda Sykes, Learning & Teaching Centre, University of Glasgow

Clerk
Nicola Morgan, Learning and Teaching Unit

Organisational Management
Arlene MacRae, Veterinary Operations Manager
Appendix D

Powerpoint presentations from vet curriculum review day on 16/12/09

Presentation 1:
Jim Anderson, Associate Dean for Learning and Teaching

Tomorrow and tomorrow and tomorrow…..

Would we pass the lifeboat test?

Veterinary medicine and the lifeboat test: a perspective on the social relevance of the veterinary profession in the 21st century
Leighton FA (2004)
Can Vet J 125:63

Mans relationship with animals

One medicine

Egypt 1800 BC
- Kahun papyri
- animal deities
- priest healers

China

Aristotle
• A view of the future (10 years)
  – Majority of vets are in clinical practice
  – Most of these are in companion animal practice

• Greatest proportion of vets are in companion animal practice

However, what governments have to address are:
• World population of 6.5 billion
• Water consumption is rising twice as fast
• 38 new pathogens since 1980
  – 75% animal origin
• Urban > rural
• Bioterrorism
• Global travel
• Climate change

Which way to the global lifeboat?
• 80% of rural poor depend on agriculture
• Livestock is important
  – Meat doubled in 15 years
  – 7% annual increase in poultry
• Aquaculture up 9% annually (Brazil 25%)
• Demand for food will double by 2030
• Global shortage of vets

Europe
• Evaluation and accreditation
• Mobility
• Workforce
• Foodchain plus
• Global context

The Gateways to the Professions Report

Sir Alan Langlands

"Changing unhelpful stereotypical images about the professions, and ensuring that young people and those who advise them, including parents and carers, have access to resources about the career opportunities that exist in each profession, the different routes available, and the qualifications and experience required for entry."
More vets

- New schools
  - Nottingham
  - Wagga Wagga
  - Calgary
  - Townsville
  - Others?

- Over subscription
  - Currently in UK 2:1
Diseases
• Do not recognise political boundaries
• Do not necessarily recognise geographical boundaries
• Continue to evolve (Avian flu, FMD)
• Continue to emerge
• Bioterrorism/security

So what do we need?

Crystal ball

The Foresight Report
• 2005 AAVMC
• 20-25 year horizon
• Norm Willis Group

Process
• Horizon scanning
• Scoping
• Challenge
  – Societal expectations
  – Education
  – Business models
  – Ethics and values

Outcomes
• Professional focus
• Limited licensure
• Reduce student debt
• Flexible and responsive
• Distance education
• One medicine
• One voice
Presentation 2:  
David Barrett, Deputy Associate Dean for Learning and Teaching

Why review the BVMS curriculum?
- Faculty ambition for a number of years
- Commitment recorded in many ways
  - Faculty strategic planning documents
  - University educational QA (DPTLA)
  - Lack of agreement in the meaning of curriculum review
  - Faculty reputation for innovation in teaching
  - Lecture free final year
  - Almost 30 years ago
- Vertical integration
- Professional skills

Where are we now?
- Successful
  - RCVS accreditation
  - EAEVE accreditation
  - AVMA accreditation
  - NSS scores
  - Graduate surveys
- Supported by the University
  - New Small Animal Hospital
  - Scottish Centre for Production Animal Health and Food Safety
  - One Health student facility

If it ain’t broke....
- At the top the only way is down
  - ... or organise to stay there
  - Avoiding complacency
  - Innovative and forward thinking, to remain a world leader
- External and internal environments change
  - Accreditation
  - RCVS and AVMA competencies
  - Outcome measures
  - Political/economic landscape
  - World Organization for Animal Health
  - DEFRA
  - Companion animal insurance
  - Production animal value
  - University funding / staffing

An international education provider
- Students
  - National and cultural background
  - Gender
  - Age
  - Educational background
  - Outside commitments, work, debt.....
  - Students as consumers of education in a competitive market
- Expectations of the learning environment
- Constraints e.g. EMS

Pedagogy
- Outcomes related accreditation
- Evidence based teaching methods and assessment
- Technology
  - VLE
  - Web based teaching, learning and assessment
- Future opportunities.......
- Flexibility
  - Core-curriculum
  - Tracking, electives, selected modules limited licence to practice?
  - Erasmus and other international exchange
  - Opportunities to experience research
  - Intercalated degrees, BSc, PhD
Societal expectations

- Changing work and career patterns
  - Business models - “veterinary teams”
- Life-long learning
  - Specialism
  - Information overload
  - Google
- Internationalisation
  - Global village
    - Trade
    - Movement of populations
    - Disease control
    - Career opportunity

Global politics

- World Organisation for Animal Health
  (formerly Office International des Epizooties (OIE))
  - International government funded body
  - UK representative CVO (England and Wales)
  - Livestock Health
  - Global food security
    - Climate change
    - World-wide population growth
- WHO
  - One health initiative

OVIS Dean’s meeting 2009

- ...core curriculum model...
- ...minimum day-one competencies of a graduate veterinarian for effective performance within the context of national Veterinary Services
- ...societal expectations for safeguards for public health, safe food, and prevention and mitigation of transboundary diseases complying with OIE recommendations at a global level
- ...strengthen the education of veterinarians on the appropriate use of veterinary drugs and vaccines
- That national, regional and local governments develop incentives for students ... work in rural areas and in production animal veterinary practice ... national territory are covered by veterinary surveillance networks:

Where are we in the BVMS curricular review?

- Responsibility of the curriculum acknowledged to be the responsibility of the BVMS Programme Board and convener (management change)
- Assessment review undertaken June 2009
- 1st phase content review
  - Curriculum mapping
  - Today’s discussion
  - External review commissioned early 2010
- Internal and external reports to be considered by BVMS Programme Board
- Presentation of recommended priorities to Faculty early in 2010
- Implementation of change in 2010 and beyond along an agreed timeline

Aims of today

- To gather views on
  - Perception of outcomes of current veterinary programmes
  - How well do current programmes meet employment and societal needs?
  - Consider the future of veterinary education
    - Where do we need to be in 5-10 years?
    - How do we ensure the Glasgow programme delivers?
- What would make Glasgow attractive to students/give graduates a competitive edge?
Glasgow Curriculum Review

16 December 2009

Bill Reilly President BVA

What the Student Wants
- Mixed practice
- Clinical experience
- Relevant EMS

What the Practitioner Wants
- Day one usable skills
- Understanding of ‘practice’
- Better organised EMS

What the Government wants
- Food animal sector skills
- “Public good”
- “Paraprofessionals”

What the EU Wants
- “Official Veterinarians”
- Level playing field
- “Paraprofessionals”

What the Customer Wants
- Skilled cheap vets!
What I want

➢ Starting point for lifelong learning
Appendix E

Full notes from workshop1

How effectively does the veterinary curriculum at the University of Glasgow meet the needs of employers?

Session 1  Allander Meeting Room  Facilitator Cathy Bovill

Former students pointed out that their employers felt graduates lacked practical experience but had good theoretical knowledge.

It was suggested that task oriented clinical skills be introduced earlier on within the programme to enhance practical knowledge in the students after graduation.

The graduates lacked practical knowledge when they went into practice.

Current students thought there was vast knowledge given to them but not much emphasis placed on particular subjects.

It was agreed that generic skills were instilled in the students which enabled them to work in different areas of Veterinary Science after they graduated but clinical practical skills required in employment were lacking.

It would be helpful for students to be given task orientated skills to help build on their practical knowledge when they get into employment.

It was pointed out that graduates lacked confidence and competency due to lack of knowledge.

It was agreed that:

a) Clinical Skills be taught at an earlier stage (first year) to help instill confidence and competence
b) Seek ways for graduates to maintain their passion for Veterinary Science because a higher percentage of graduates left the profession after working for a few years
c) Provide more task orientated skills during the course.

Session 1  Seminar Room 1  Facilitator Craig Brown

- Need for more practical skills
- Better understanding of Employers needs not just in General Practice but also in the Public Sector.

Practitioners complained that students require more practical skills e.g. taking blood samples

EMS - There is no guarantee that students will be treated the same by practitioners. There needs to be some consistency so all students gain experience from doing EMS or it could be a year wasted in a student’s life. This may partly be due to insurance cover.
EMS is more essential for students who want to go into large animal practice than it is for students who want to specialise in small animal practice.

The students would like more practical classes timetabled into the curriculum but not enough time or staff resources are available to do this.

International students do not feel that the current programme is meeting their needs.

We also need to look at how well the current programme meets employer’s needs. Although employers do not expect to get ‘the finished article’, employers and customers do expect graduates to demonstrate confidence and competence in practice.

As different skills are needed to work with large animals and small animals maybe the curriculum should be changed to meet these different requirements.

It was also noted that the only Life Skills taught at Glasgow is communication skills.

Feedback from Graduates – Graduates are asked to complete a survey 1 ½ years after graduation. 80% of graduates do complete the survey which is helpful in defining how well students are prepared for practice.

Opportunities in the public sector are not being taken up by UK vet students. 60% of positions are going to International students. Students do not seem to be aware of the opportunities in the public sector so this needs to be marketed better.

One student responded – enjoyed working in the abattoir but working in the public sector was not the reason he wanted to be a vet.

More understanding of employers needs is required to drive the curriculum forward.

Non-clinical professional skills need to be added to curriculum

Session 1  Seminar Room 2  Facilitator Amanda Sykes

First need to define employer, as each of 3 sectors has different needs: 1) Vet Practice, 2) Research/Academia, 3) Food Animal Production/Govt Service.

Programme as it stands is designed to meet day 1 core competencies. Where it is lacking is in commercial skills/business processes. New graduates have no understanding especially of business processes. Shouldn’t this be a practice manager’s job? Students need to understand that bills need to be paid and the financial costs of running a practice. Students had no concept of link between for example, the issue of bills which are unpaid/complaints.

In response: Students have 38 weeks of EMS. Surely it is the employer’s job to show this while students are seeing practice.

Practice manager could help, but vet school is only interested in the student's clinical experience.

Students need actual experience in practice to understand these things. In 2 weeks practice not going to be able to build up the same rapport to discuss finances etc. as you might on a 10 week session.
Things being done well at Glasgow

1. Examination format on Small Animal side is good for delivering new graduates with day 1 core competencies. Has been mapped against them to make sure being delivered.
2. Clinical Skills developed so that students are learning these skills from 1st year upwards, not just in 4th and final year.

Negatives:
Employers still feel that new graduates are limited in clinical skills/ usable day 1 competencies.
Food Animal Production – lack of experience and understanding. Possibly because access to teaching cases is limited. Core competencies for food animal production are not being met and in any case need to be redefined.

Is there a list of core competencies available for students for EMS?

Considered that EMS across the board is poorly organised.

Confirmed that there is a list of all competencies for each course listed in the Course Information Documents. Concern that a list can became a tick box exercise but a core competency list is being produced. For EMS there is a form for students to set objectives and discuss with practice what they want to get out of each EMS experience and their portfolio is meant to reflect these different experiences. Different experiences at different practices is out with the control of the Vet School.

Good points
1. On the whole generally competent new graduates are produced.
2. Communication skills teaching is very good and it is noticeable that these skills have improved greatly over the years. 10 – 15 years ago Glasgow students lagged behind Edinburgh ones in this respect. Have now caught up. Students coming out now confident and able to communicate well.
3. Quality of input significantly higher now, but the demands on students and expectations of them are also higher. Weakness of course is still that there is too much focus on knowledge and not on other skills.
4. Last year’s graduates are all in a job so course must be delivering. Data available on this that shows the average time lapse between applying and obtaining a post is 6 weeks. Why is this? Is it Glasgow’s reputation? No. Employers always look for the person who fits the job on offer best.

Students’ Perspective.
1. Particularly likes the amount of practical classes offered as well as lectures and the fact that the international students catered for.
2. Teaching staff are very approachable, the majority of lecturers good. Negative – lack of clinical skills, although this is now being rolled out down to 1st year. Also rotations in final year – while interesting to see surgery in SAH, unlikely to be using that in first job and better to focus on day 1 core competencies. First opinion work important.
3. Course content – rounded, aimed at everybody, keeps you interested.

Students enjoyed the practical aspects of the course – 3 most popular rotations in Final Year: PDSA, SPPCA & Dog’s Trust, and Lanark Farm Animal practice. Day 1 competencies, first opinion work and an appreciation of costs important.

Points to take back to meeting
1. Clinical skills improvement. Now taught in all years and course being further developed.
2. The breadth of the course being delivered. Eg Farm animal production and Public Health are still included.
3. Students are made aware of every opportunity open to them. They know all the routes available to be taken on graduation.

Negatives
Lack of business skills. Should this be the role of EMS? Students do not ask for this information when seeing practice so maybe it needs to be a taught element.

**Session 1  Seminar Room 3  Facilitator: Mary McCulloch**

Needing students to be competent from day 1 of graduating.

Students have to be followed at all times to achieve competency but due to large class numbers this isn’t always possible.

Can’t always be fully competent after 5 years but we need them to be able to practice safely.

Employers can feel that when hiring a graduate they have to watch them constantly however some students, before they start their posts, do unpaid work in a practice which prepares them for beginning their post and the employer can see their restraints.

Students need to be trained in business constraints and time should be found for this.

Students from Nottingham had done induction courses and the knowledge they received from these was brilliant. When looking at these students you would have thought they were in their 3rd or 4th year of the course but they hadn’t yet started the course.

There is a lack of retained information when students graduate. Would be ideal when teaching things such a basic science that examples of why they need it when working in a practice would be a great way of teaching and making students more interested. Pharmacology does this in a clinical sense and students feel it works well. Nottingham do examples but this is complicated to run and resources are limited.

Employers feel graduates have too many lectures and not enough practicals.
Appendix F

Full notes from workshop 2

How will the veterinary profession and veterinary education change in the next 5-10 years?

Session 2  Allander Meeting Room  Facilitator Cathy Bovill

It was agreed that omnicompetence was necessary because most students are uncertain of which career path to follow at the start of the course.

Vet course sets foundation for management of both small and large animals.

Broad knowledge offered to students will give them options of specialism in their profession.

Students thought it would be a good idea if what was expected of them in the course was outlined at the start of the course.

The trend for veterinary practices is moving from small to bigger practices and therefore specialism during the course should be considered.

Curriculum change should include giving students group work - which would prepare those wishing to join large practices to work in teams.

It was also suggested that teaching should encourage students' thinking capabilities. Despite the vast sources of information available, students are unable to evaluate information presented to them. Inclusion of active learning would help students to be able to evaluate and criticise information presented to them, a skill that is required in the working world rather than just taking information and accepting whatever is presented to them.

Students thought an exchange programme would be beneficial to them.

It was suggested that electives could be considered to help cater for international students who required specific knowledge for the parts of the world they came from (internationalisation of modules).

Curriculum could be tailored to change with the on-going changes within practice.

Introduction of modules or short courses/lifelong learning could assist graduates stay in touch with the changes taking place in veterinary medicines.

Key points:
How much specialism is required after graduation?
Teaching modules that reflect how people in the future and incorporate modules that a specific to international students
How to relate information given during lectures relevant to practical aspects of veterinary science
Session 2  Seminar Room 1  Facilitator Craig Brown

Diversity of government policies related to animal health and welfare.
Need for awareness of EU context for small animal vets.
Need for vets and government to work in the same way.

Before in farms, responsibility of vets to treat, but now farmers want vets to keep herd healthy not treat individual animals – this impacts on vet practices.

In future – vets will need to be team players good at delegating. Traditional vets will have to work with non vets in practice (para professional). The vet role may be more of a team leader/organiser. Para professional training skills to provide vet services under vet supervision instead of vet services provided directed by vets.

Need for vet auxiliaries or vet nursing servicing large animal practices.

Emphasis on communication skills of vets

There is an idea that vets don’t have to be managers. Help vets to become managers

Lectures on how to build a business

SPVS Conference Your First Job

Discrepancy of economic, costs of treatments between small animal practices & large/farm practice. EMS helps becoming aware of those business issues

Debate about a limited licence?
People’s opposition would be limited by their experience

Core competencies already include team working, management

Introduced idea of a postgraduate modular certificate
3 modules - could they be brought out of undergraduate studies.

Things should be removed and others added in to the vet curriculum in order not to restrict/specialise, but allowing students to pursue special interests. EMS provides this to some extent. Could universities work with practice for EMS?

International dimension – After RCVS & AVMA accreditation, internationalisation seen as next main goal of Glasgow University. Development of the curriculum needed in order for students to be supported in having an international career. Viewed as valuable to have diversity within the curriculum to support work at an International level.

Changing environment and international disease threats mean we have to become flexible to incorporate international dimension

Summary
I Vet practices moving more towards team work
II Specialising
   General licence/limited licence
III flexibility to future gaze in order to respond to change because of rapidly changing world
   Animal welfare front because of trans-disease.
Session 2 Seminar room 2 Facilitator Amanda Sykes

Three Key Points:

1: Learn How Practices Work
2: Flexibility of vet overload
3. Promote Life Long Learning

- There is a global recession at present, although impact not drastic as yet.
- The public are cutting back, i.e. on pet insurance.
- In-House insurance plan offered by some practices.
- Will the public resort to suing veterinary practices?
- The need for students to defend their role in the profession.
- Omnicompetence should stay because at the start of the course very few students know what avenue of the profession they wish pursue.
- The requirement of students being taught clinical skills from 1st year.
- There is too much irrelevant information taught on the course.
- Cut back on knowledge overload.
- Students should be taught on “A Need to Know Basis”
- Modules could be a way of cutting down on material overload.
- Due to virtual learning, some students do not attend lectures.
- On taking notes in lectures, students can take in more information.
- It is possible to decrease information overload, students are not required to memorise all information and reference books are available.
- Most vet schools have not adhered to the guidelines of the RC curriculum.

What do Practices Need?

- Students need to learn more practical skills because in practice there is a time factor and new graduates can take up to one and a half hours to do a spay when this should be done in 35 minutes.
- Graduates have too much knowledge but do not know what to do in practice and they very often feel intimidated because they are not confident dealing with real cases. This very often results in an animal being referred unnecessarily, i.e. to “Vets Now”.
- EMS: Students require longer periods at practices in order to learn these skills. This is difficult because of the increased number of students on the course.
- Students do not acquire enough basic skills at vet school. This is difficult because we are teaching in a referral environment and it is difficult to teach students all skills to a high standard.
- Students should be taught “Business Process” i.e. how to bill a client. How to reduce work overload. It is also essential that students continue to learn after graduating i.e. by undertaking modules.

Session 2 Seminar Room 3 Facilitator Mary McCulloch

It is important to have business strategy and management skills and students don’t seem to have good knowledge of this. Employers feel that due to financial restraints it isn’t always possible to teach graduates this.

Business skills could be taught by doing practicals or having examples in lectures. Fire complaints at students and tell them they have to deal with it. Some feel this is an excellent way to teach.
Students need to have experience of handling data but they don’t. One student suggested that they could have mini projects to do this and present it to the class or small groups in the class as the effort will still be put in although it’s not being assessed.

A major complaint from employers is lack of communication skills from graduates. Need to pick out where in the course communication skills are used and demonstrate.

Resource management – students don’t know what resources are good and which are not. Some just type into google but this is not a good method.

Some felt rather than adding to the course the information needs jiggled about. Trying to produce this will be very difficult.

The group discussed the skills and competencies the students should have and these were thought to include 1. problem solving 2. communication 3. core base of knowledge 4. IT skills

Students should have clinical knowledge and the small animal hospital helps them a lot with this.

It would be good if early registration could be given for students to do more in their final year before going out into the big world.

It would be good if the RVS guide to professional conduct could be issued to students at the beginning of their final year.
Appendix G

Full notes from workshop 3

How will the University of Glasgow ensure that it meets the needs of graduates and the veterinary profession over the next 5-10 years?

Session 3  Allander Meeting Room  Facilitator Cathy Bovill

Students felt it would be useful to have practical classes integrated with theoretical aspect of the course at the same time. This would help students relate to what they learnt from the lecture and put it into practice.

The programme needs to be made relevant at entry point.

Make the programme more flexible so can respond to changes in future
Also more flexible so students have choice – like EMS but choice in all courses.

Course structure needs to integrate all elements of the curriculum

Students felt it would be useful for them to start learning clinical skills right at the beginning of the curriculum.

EMS role is pivotal to the course but the university has no control over it hence its not possible to make any improvement. University was thought not to be able to quality assure EMS.

Majority of practices do take students. Many practices complain that the university does not give guidance? Integration of EMS is university's responsibility

Faculty needs to be willing to invest in the curriculum

Session 3  Seminar room 1  Facilitator Craig Brown

Students as consumers of education - Important to listen to students suggestions

Info overload detrimental to learning process

Lectures – with case study at the end make it relevant to life situation.

Inspire students about the subject

Preclinical /clinical cross over

Lack of team work among course leaders/lecturers
Need an agreed plan
Need more input from clinical staff
Need more vets teaching pre clinical course
Clinicians should give key aims for lectures to cover
4th year CIC is good at incorporating clinicians’ research

Possibility that course could lead students to research

More resource – stop commitment in time
More staff for clinics part-time from local practice
Change mindset of staff
Increase of facilities

CPP as currency for employing staff from vet practices

Listen to other authorities RCVS – AVMA

Summary Points

view students as customers, feedback from students, re syllabus
syllabus needs more streamlined
define day 1 competencies
more professional skills
more cooperation between vets and non vets (lecturers)

Session 3    Seminar room 2    Facilitator Amanda Sykes

- Move 3rd year content (some) to 1st year
- Reduce information overload – keep what is relevant
- Perhaps have taster sessions
- Move away from focus on passing exams
- Need overview to pull information together
- Make learning relevant eg horse leg
- Integration of teaching & learning (dry) & the reality for surgery etc practice
- Bring people in from practice ➔ business teaching
- Economics of food production/therapeutics etc
- Public sector & how that works too (economics)
- Produce scientists and practitioners
- Small animal teaching hospital
- Identifying & supporting teachers
- Real interface with first opinion vets
- University co-operated with clinic (control problems)
- EMS document guides what students do
- SVC have postgraduates on work practice for 4–6 weeks volunteers. Mentored practice
- Clinical teachers map programme to clinical competencies
- Mapping of curriculum covering some of this
- Tweaking
- Competition with Liverpool

Session 3    Seminar Room 3    Facilitator Mary McCulloch

Having a practice within the vet school which is charity based. This should be run by the students with guidance from the lecturers.

Practices may not be happy with this as can be stealing their business.

PDSA teaching is best as standing around watching doesn’t teach you much.
Why Glasgow University vet course? Students say they were recommended by local vets. Told staff were friendly. RVS said this is the same comments they hear from students at other universities.

The vet school requires a step change. The course material needs radically reduced. Nottingham have done this. Do we reduce level of information or take out chunks.

In previous years staff were reluctant to change the curriculum partly due to having to double teach.

Students feel there is a lot of information that could be brought back a year.

Key question is when do we work with animals?
Appendix H

Notes taken on 17th December 2009

Curriculum review day 2

These notes also contain points raised by staff in email correspondence due to being unable to attend the day 2 meeting.

The point of the meeting is to discuss anything that was missed yesterday. How will we manage change? Jim Anderson informed the group that the meeting was for opinions and suggestions not decisions as these will be made by the BVMS Programme Board. How do we ensure better delivery?

- Need to align clinical and non-clinical work
- More clinical experience and earlier
- Animal Husbandry name should be changed as not seen as attractive to students
- Another suggestion was that animal husbandry should be split up and teaching blocks moved into the clinics
- Need for huge change
- Cannot stand still, RCVS made clear yesterday that we must make changes
- Need to make change now in terms of overload in the curriculum
- CPD compared to other vet schools is terrible, but CPD is being rethought
- 4th year workload has been addressed but 3rd year hasn’t – needs cutting before 2012 when RCVS have another look at our curriculum.
- We need to scrutinise again the key recommendations from the RCVS 2002 report.
- How can the useful inputs from external stakeholders be continued after yesterday?
- Current course descriptors often give clear aims and objectives, but perhaps we need to instruct students more about what they should be looking at.
- Need to cut overlap
- We need to shift things between the years to make some space
- We need to reduce content and overload. Mapping the existing course will help greatly and reviewing the purpose of the degree should identify subject areas where there are particular problems with overload
- We need to change and although we use the ‘lecture free 5th year’ as an attraction, this happened 30 years ago, it is not a new innovation any more.
- Incorporate EMS into course so it’s funded. Discussed having EMS in term time. RCVS needs to be convinced of this. Suggestion – 20% of programme could be flexible. 80% could be core and 20% elective. Call courses ‘long courses’ to get funding for EMS
- It was thought by some that EMS was overemphasised on day one in some group discussions.
- Flexibility earlier in the course could keep students interested. So allow students to pursue areas of interest within the core curriculum and whilst learning core skills
- Create PG CPD modules perhaps use VLE and could make this commercially valuable – could market to alumni, emphasise lifelong learning
- Rejig the timings so that perhaps final year starts half way through fourth year.
• Break up the boundaries of time as it stands – move away from years to semesters perhaps.
• Anatomy does need to be cut but we need to be careful how much is cut.
• Getting pre registration to practice would be great experience for the students.
• Students feel they don’t have enough experience in first opinion. It was suggested this might be because of how lecturers teach and deal with students.
• Need to nurture students confidence.
• We should create a course with commercial value.
• One suggestion was that all assessments should be scrapped. Most people disagreed about this. There was a feeling that students wouldn’t learn without being assessed.
• Perhaps emphasises more progress testing rather than exams
• Use students in final years as peer assisted tutors
• The vet school needs more money and people to make any changes.
• From a recent visit to Nottingham university to explore how clinical skills are taught, it was found that all members of staff taught clinical skills and used a rota. This worked well and is something the vet school should try. We should use nurses more to teach clinical skills. Our problem is we don’t have enough nurses. Students prefer to be taught by Veterinary nurses rather than lecturers.
• We need to come up with a curriculum to inspire students.
• Some felt a 4 year course would attract others.
• It was suggested that introducing Business studies would have poor turn out from students. However, one of the students yesterday said that introducing mini projects for business would be helpful and if they were presenting it to the class it would encourage them to try hard.
• Another person disagreed with teaching about business management thinking that students should gain this through their experience on the course. Also noted it is difficult to teach business skills to suit the varied needs of all students.
• One person suggested QA for EMS is almost impossible and EMS will be the hardest to change. (However they carry out QA for other placements in rest of University of Glasgow).
• We should make it an 5 year intercalated degree. (4 years for those who already hold a degree?) But there may be problems with funding this. Also suggested we could run an intercalated masters.
• VP says every student should do an extended piece of work. Can this be included in the curriculum?
• An idea was to have final year present to teach 4th years
• We could run summer research projects all year round as this would bring in more volunteering staff. This could be a funding issue.
• Final year lasts one year not 6 months but summer is a problem – would reduce class sizes. Change year structure to have ‘rolling gaps’?
• Research modules could be part of flexible programmes – but funding is an issue.