In pursuit of the ideal mix:
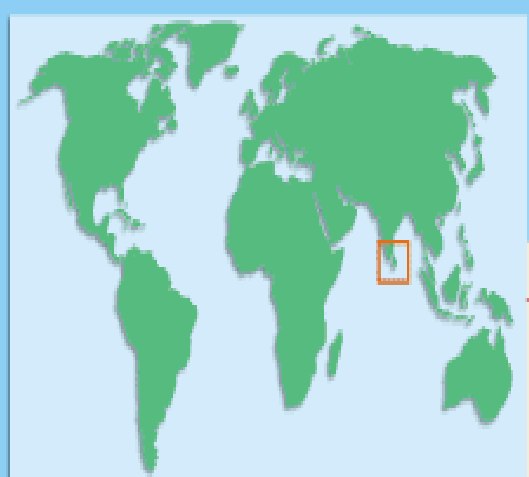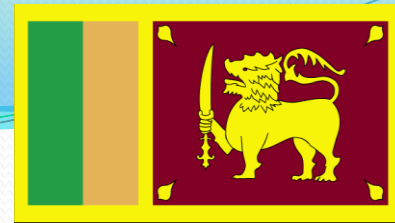
**The undergraduate curriculum
of
Faculty of Medicine
University of Colombo
Sri Lanka**

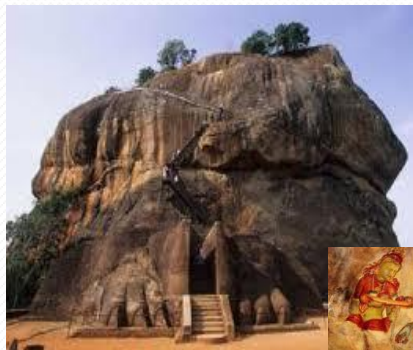# Warm greetings from Sri Lanka!

Extent - 65,000 km²
Population - 20 m
Race - Sinhala
Religion - Buddhism

Education in Sri Lanka

Primary and secondary education

- – up to 12 years

- – usually in mother language, but available in Sinhala, Tamil or English

- – a national examination (GCE O/L) at the end of 10th year – to select major study area for higher studies

- – University entrance examination (GCE A/L) held in the 12th year – a national examination

Education in Sri Lanka .....*contd*

Undergraduate medical education

- – 8 universities, each having a Faculty of Medicine

- – these are governed by University Grants Commission (UGC)

- – 5 years in duration

- – conducted entirely in English

One year of internship, before receiving the license to practise independently

Education in Sri Lanka .....contd

Postgraduate medical education

- – all major specialties and subspecialties

- – conducted by a Postgraduate Institute of Medicine (PGIM), University of Colombo

- – entirely in English

Sri Lanka Medical Council (SLMC)

- – issue licenses to practise either as a Grade Medical Officer or a Consultant Medical Officer

- – accredit medical schools / quality assure medical education

In 1995 - a major change in the curriculum
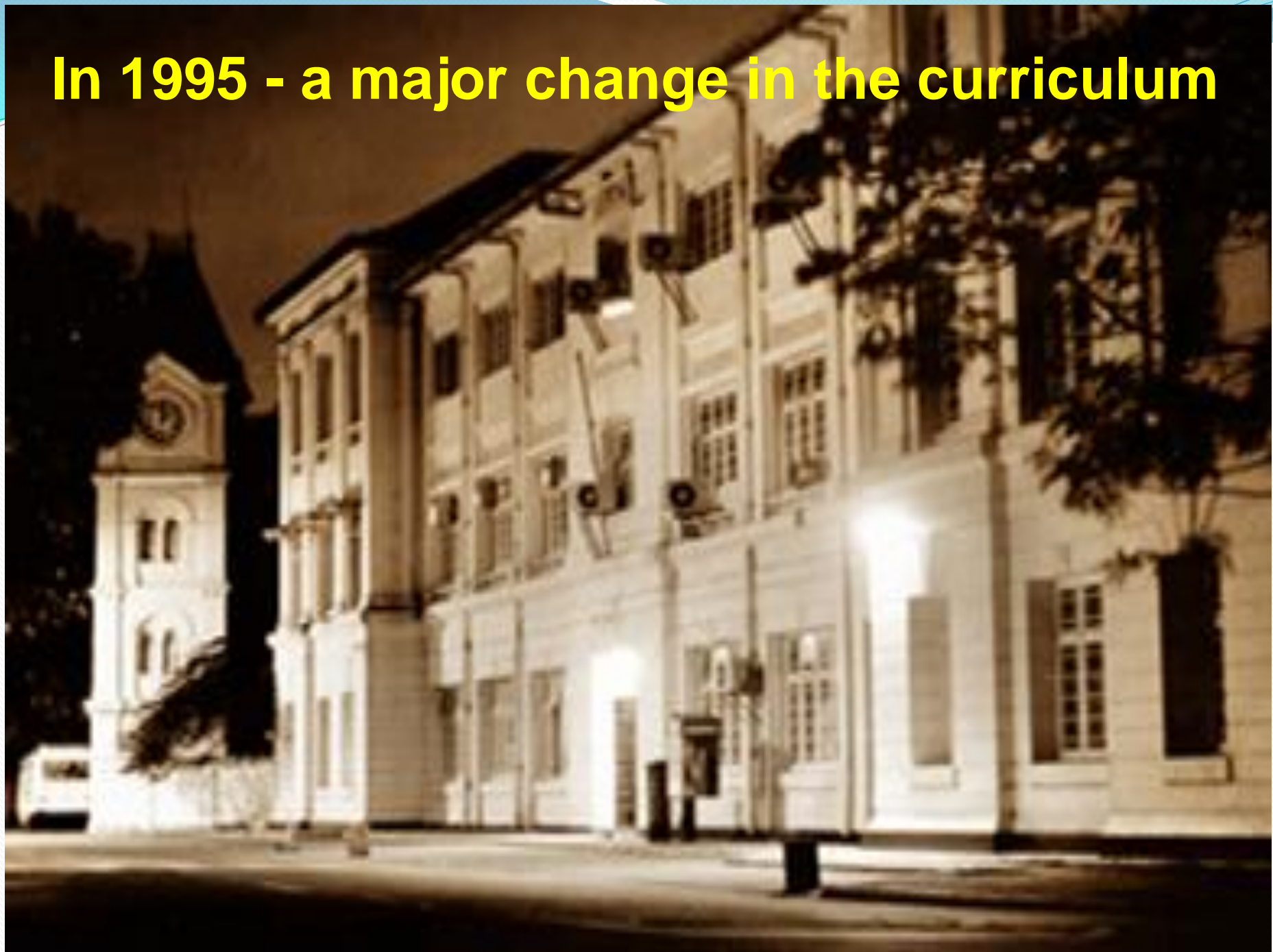
Overview

1. **What are the needs?**
   What sort of a product does the country need?

2. **What are the outcomes of the programme?**

3. **What is the content of the programme?**

4. **How has the learning experience been arranged?**

5. **What teaching and learning methods are employed?**

6. **How are the students assessed?**

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8. **What is the learning environment?**

9. **How are the details of the educational programme communicated to the learner?**

10. **How is the programme managed?**

Mission statement

" To develop a graduate who will contribute to fulfil the health requirements of the individual and of the community, with competence, compassion and care. "

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Community needs: institutional objectives

1. Identify, important illnesses & other health related problems in individuals & in the community, and plan & implement appropriate preventive, curative & rehabilitative measures.
2. Identify, recommend & implement activities, which promote health of the individual, family & the community.
3. Work harmoniously with others as a leader/member of a healthcare delivery team.
4. Educate & train other individuals, health care personnel & the community, towards better health.
5. Develop & maintain personal characteristics & attitudes to function as a health professional.
6. Carry out basic medico-legal procedures & statutory duties.
7. Plan and carry out appropriate health related research.
8. Develop self-directed learning & self-evaluation.

Competencies

To achieve the above objectives, the graduate should:

1. have an appropriate **knowledge** of biomedical & social sciences, & humanities
2. be able to recognise the particular **needs of a patient, community, self & the profession**
3. be able to understand the **ethical, legal & economic aspects** of professional responsibilities & tasks
4. be able to use appropriate **clinical & therapeutic skills**
5. be able to recognise the importance of **accountability & honesty & the humane approach** to professional work
6. be able to utilize appropriate educational **communicative, management & interpersonal skills**
7. be able to **utilise the facilities and resources available** in relevant sectors for the benefit of the patient & the community

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Curriculum content

Modular curriculum based on body systems

5 streams
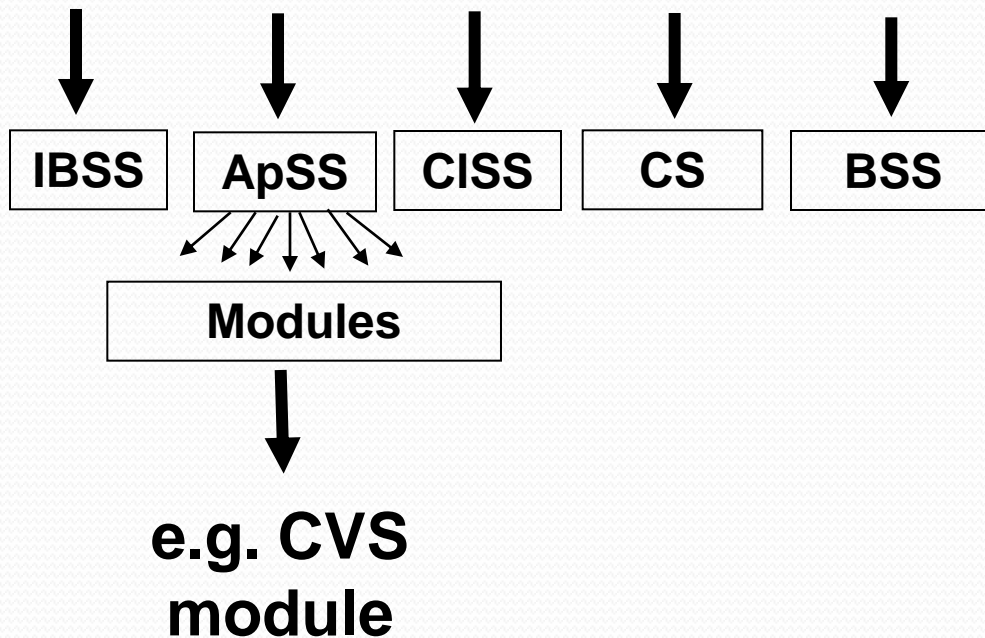
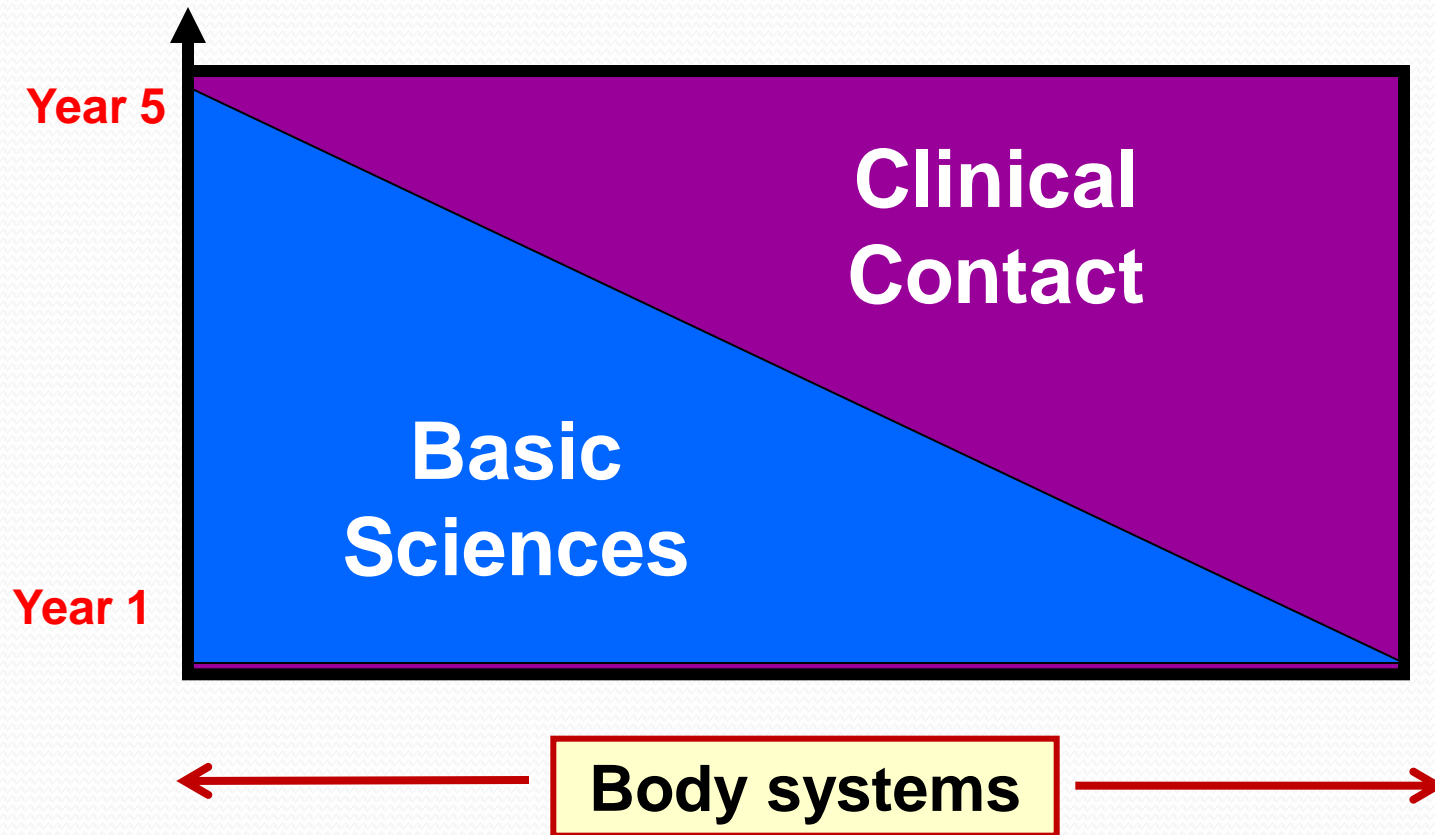| IBSS | ApSS | CISS | CS | BSS |

Modules

e.g. CVS module

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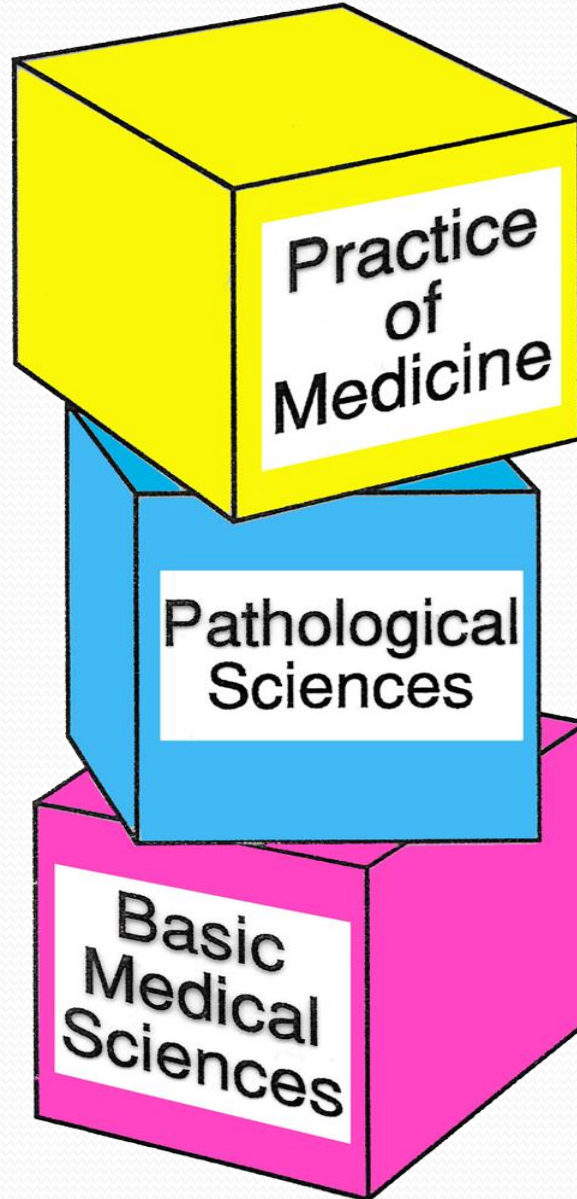
Curriculum organisation

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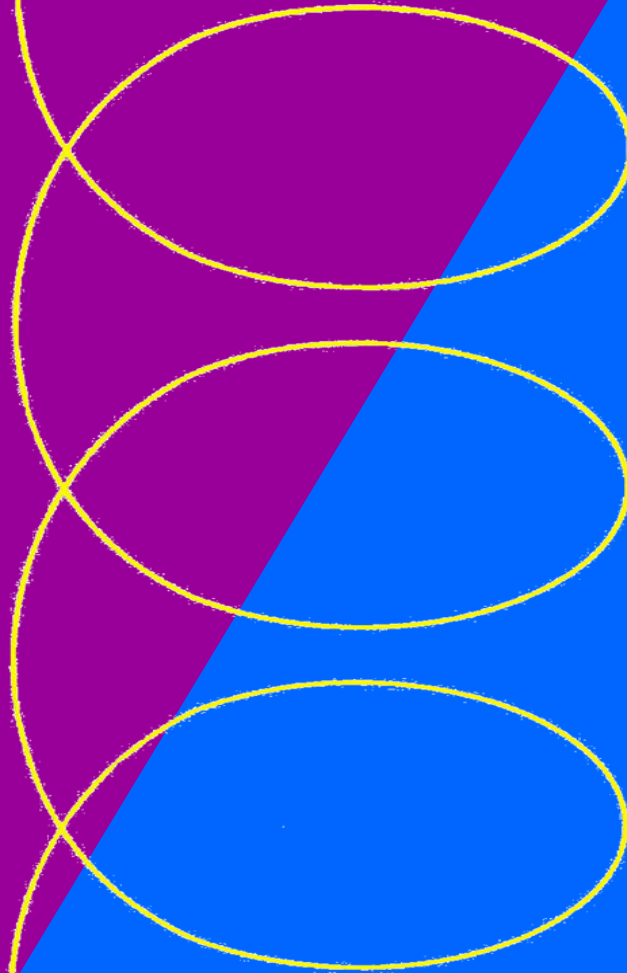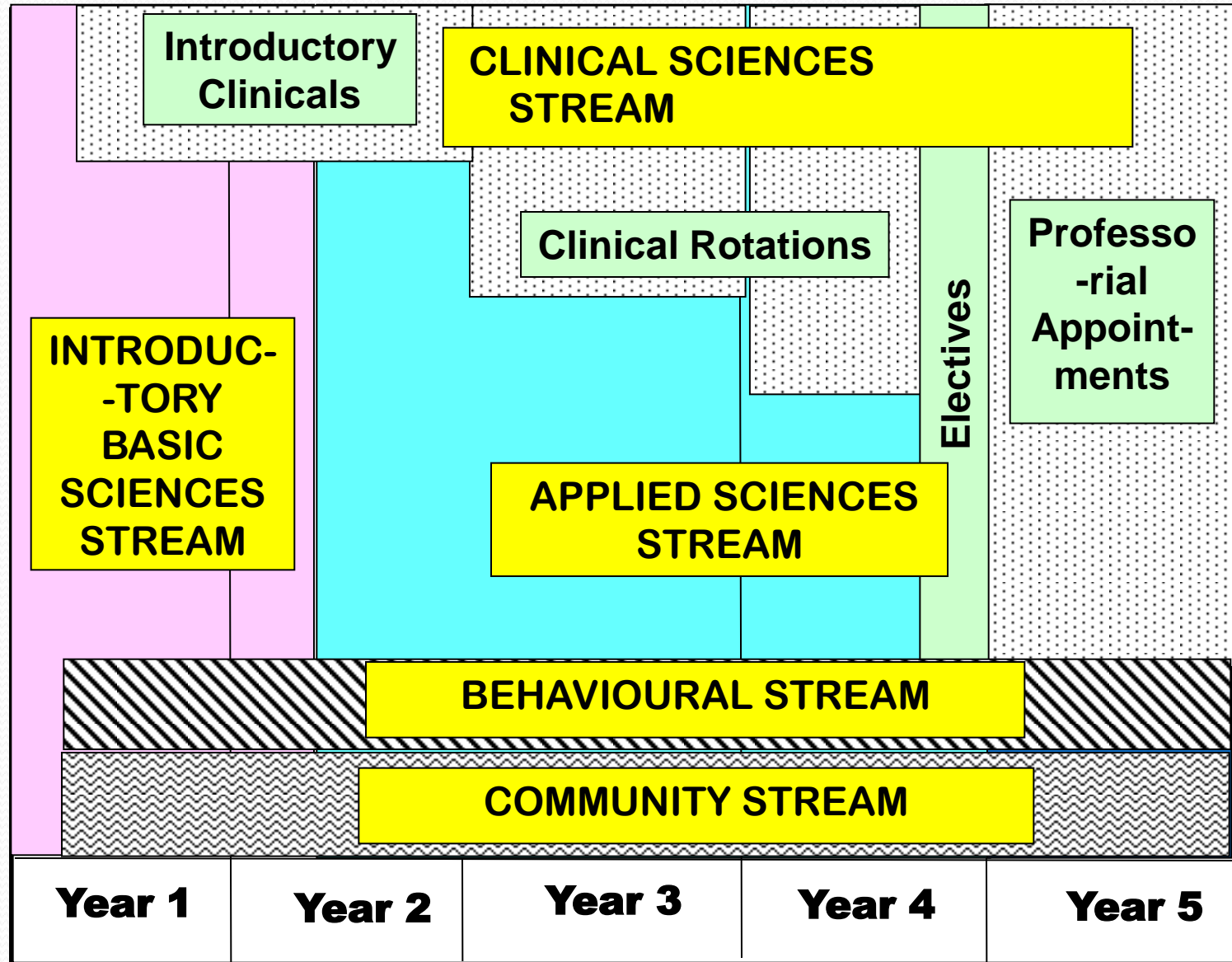
10. **How is the programme managed?**
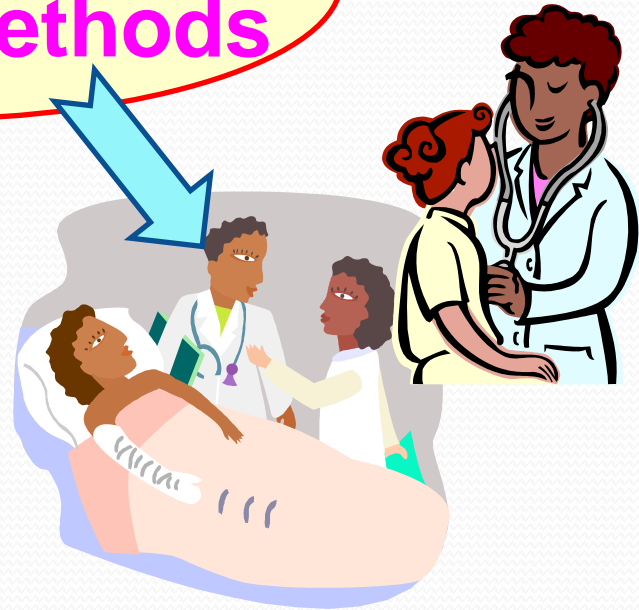
Teaching and learning methods

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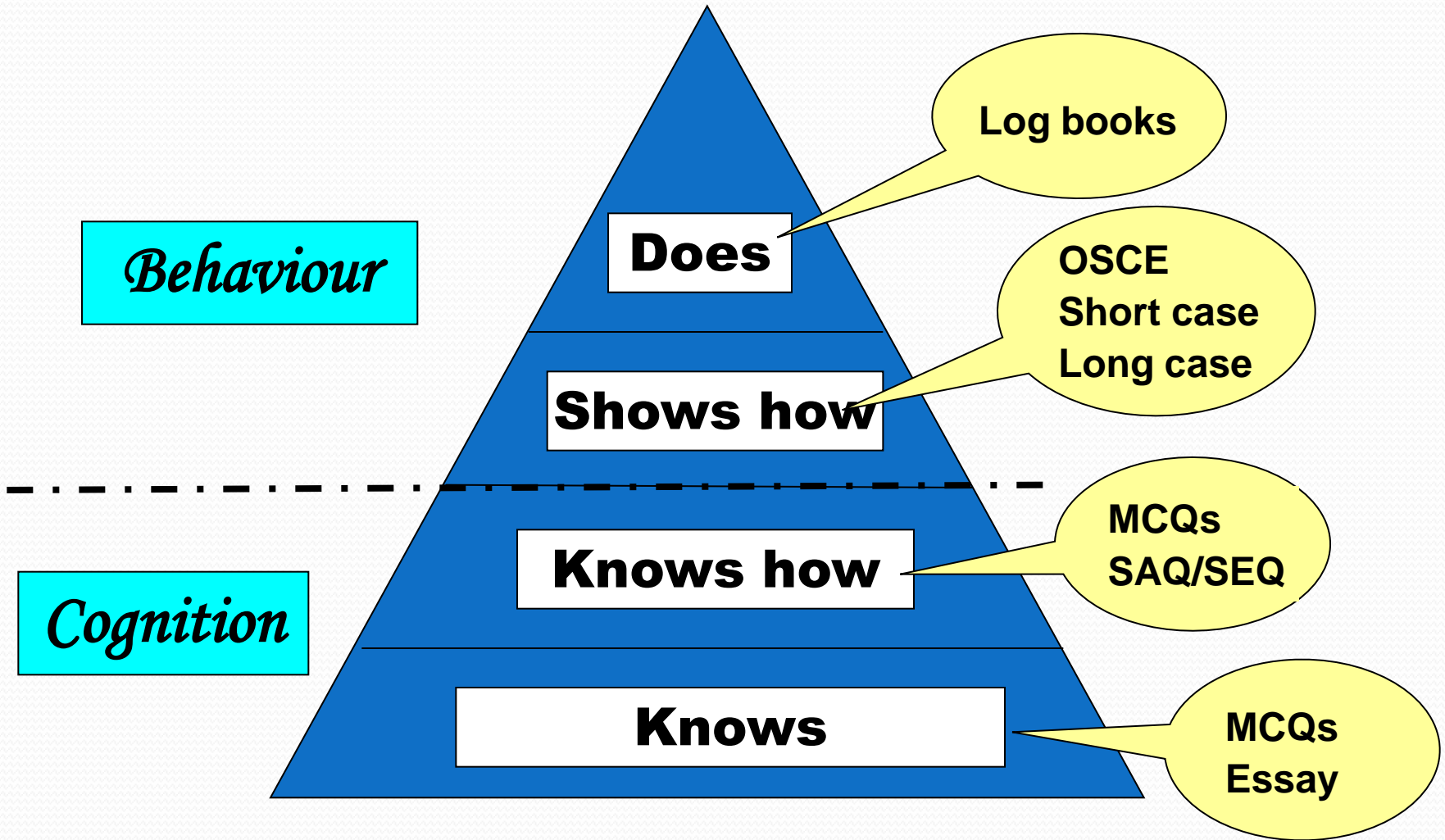10. **How is the programme managed?**

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S tudent centred

P roblem based

I ntegrated

C ommunity based

E lective driven

S ystematic

Student-centred _____ Teacher-centred

Problem-based _____ Information-gathering

Integrated _____ Discipline-based
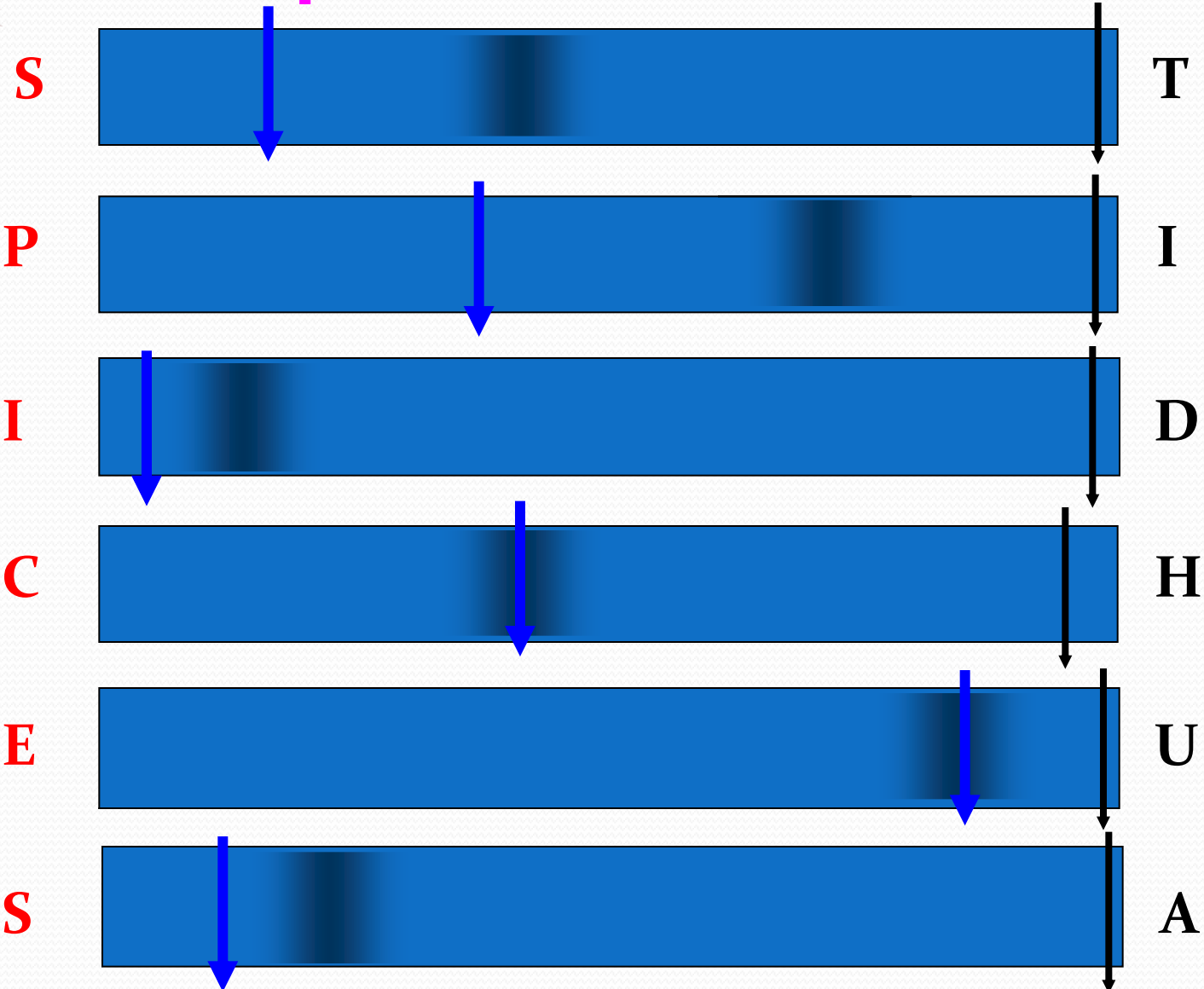
Community-based _____ Hospital-based

Electives _____ Uniform

Systematic _____ Apprenticeship

SPICES profile

S		T
P		I
I		D
C		H
E		U
S		A
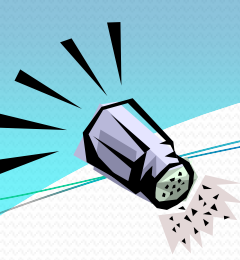
Harden, R.M., Sowden, S. & Dunn, W.R. (1984). Some educational strategies in curriculum development: SPICES model. *Medical Education*, 18, pp. 284-297.

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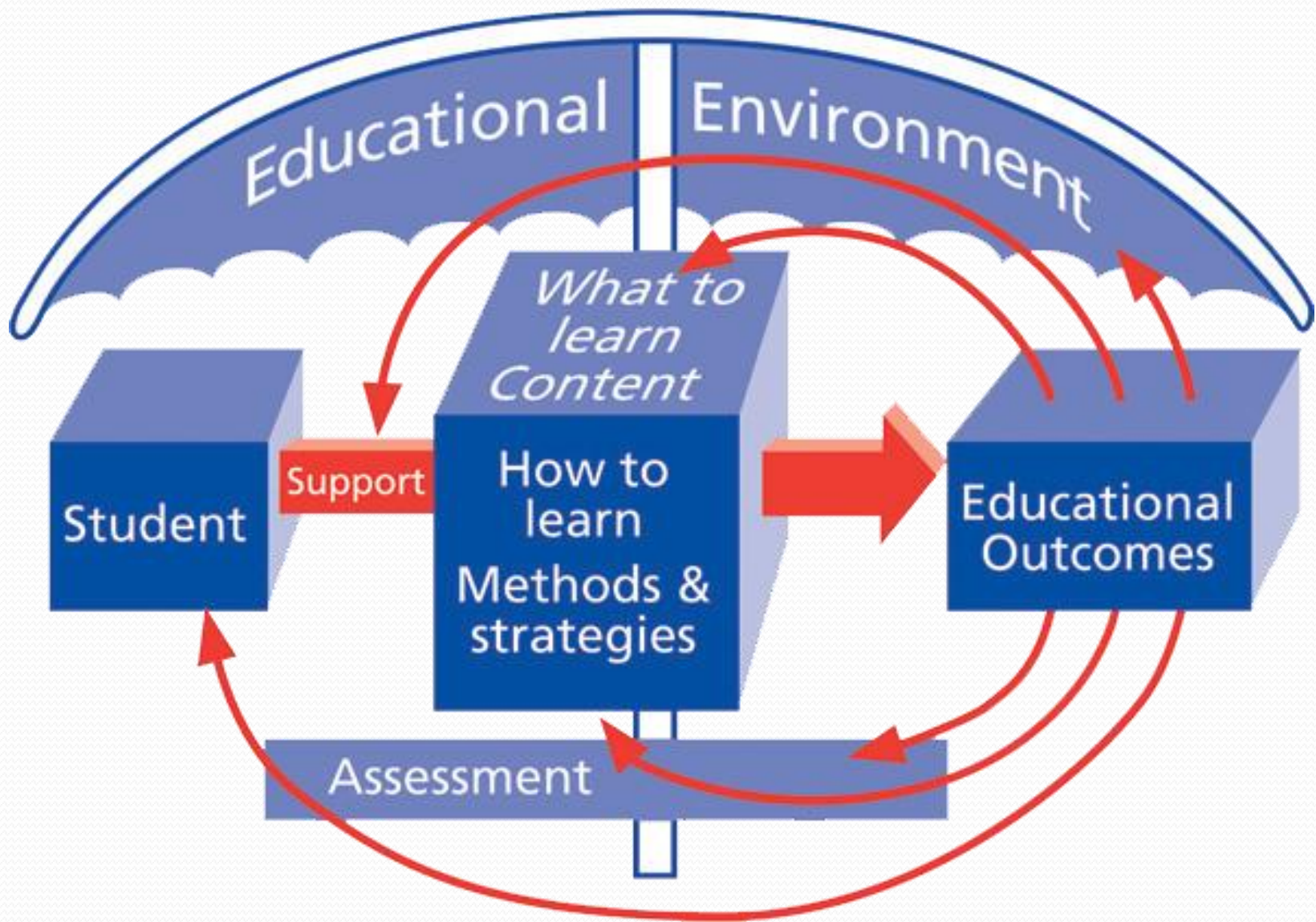
Educational environment

1. **Student perception of learning - 70%**
   A more positive perception

2. **Student perception of teachers - 70%**
   Moving in the right direction

3. **Academic self-perception - 60%**
   Feeling more on the positive side

4. **Student perception of atmosphere - 55%**
   A more positive atmosphere

5. **Social self-perception - 65%**
   Not too bad

Overall environment measure = 65%

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How are thecurricular details communicated?

- **Faculty student handbook**

- **Stream handbooks**

- **Module handbooks**

- **Timetables**

- **Student handouts**

- **Reports; e.g. SLMC report**

- **Faculty website**

- **Student representatives**

Overview

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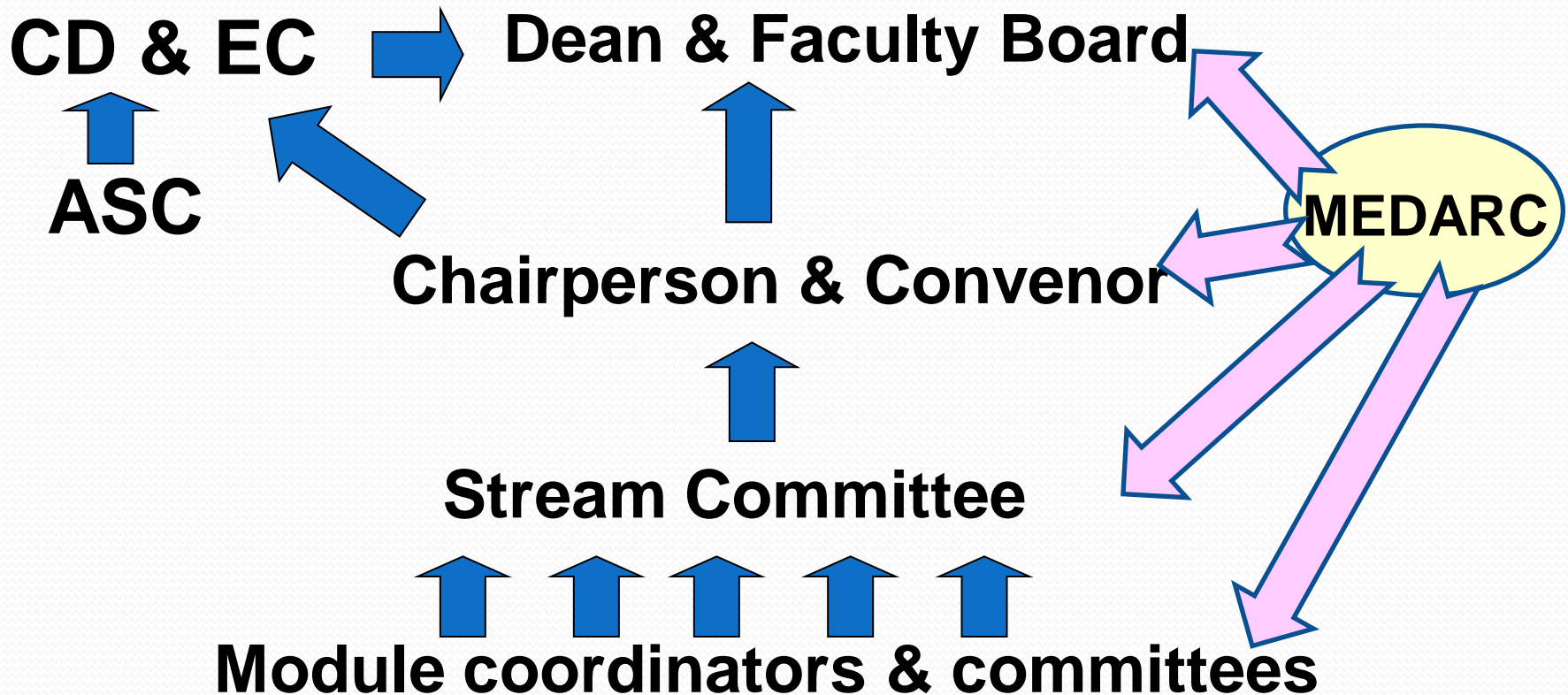10. **How is the programme managed?**

How is the process managed?

CD & EC → **Dean & Faculty Board**

ASC

Chairperson & Convenor

Stream Committee

Module coordinators & committees

MEDARC

- Two major curriculum evaluations
- Student evaluations

Overview

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Can the curriculum be improved?

- **Assessments – perceived problems with integration**

- **IBSS – very little integration**

- **Clinical Stream 104 weeks, not being well utilized**

- **Clinical staff / students - grumbling about the behavioural and community stream**

Assessment

(i) Students can pass some module exams without achieving 50% for each contributory subject
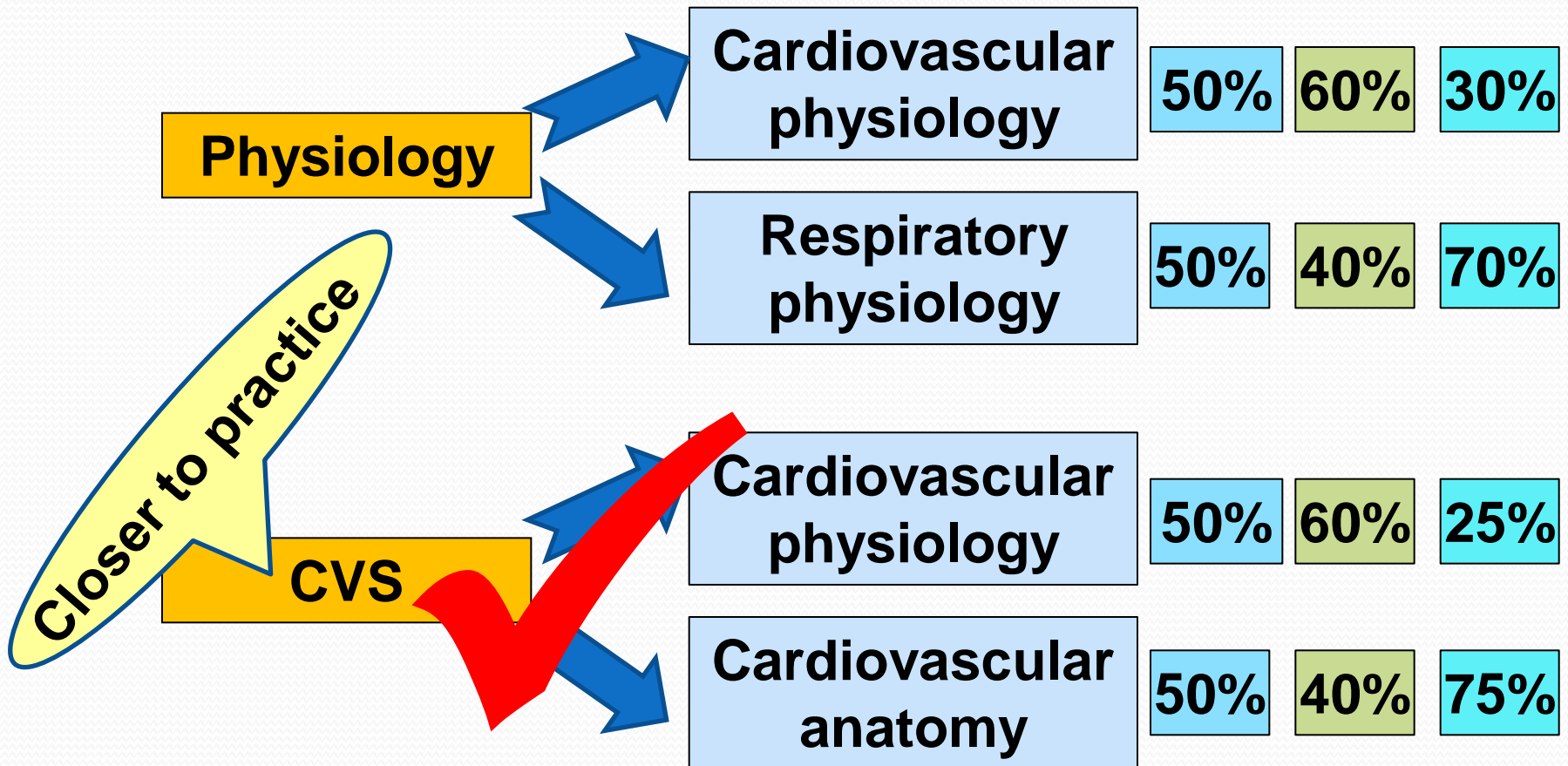
Physiology

→ **Cardiovascular physiology** | 50% | 60% | 30%

→ **Respiratory physiology** | 50% | 40% | 70%

Closer to practice

CVS

→ **Cardiovascular physiology** | 50% | 60% | 25%

→ **Cardiovascular anatomy** | 50% | 40% | 75%

Assessment *contd....*

(i) Students can pass some module exams without achieving 50% for each contributory subject

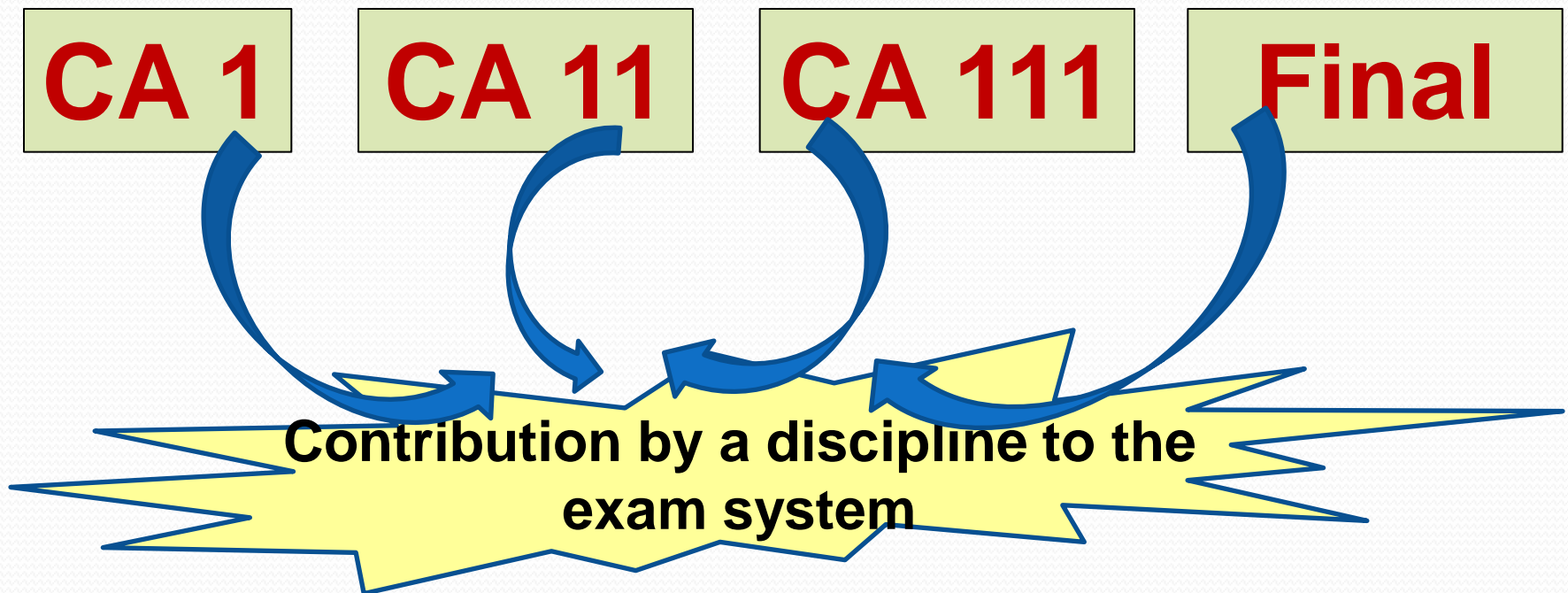If the exam questions are based on a blueprint each content area could be assessed in the required proportion.

Further, if the questions are based on clinical scenarios, the adequacy of the contribution by each discipline for a given question should be determined by the clinical relevance of the content, rather than the discipline that contributed to the content.

For certain modules certain disciplines contribute heavily and those disciplines will be assessed heavily in these modules. However, to some other modules, some other disciplines will contribute heavily, and thus will be assessed heavily.

Assessment *contd….*

(i) Students can pass some module exams without achieving 50% for each contributory subject

If one really wants to see the contribution by a discipline, then the entire assessment process needs to be considered.

CA 1   **CA 11**   **CA 111**   **Final**

Contribution by a discipline to the exam system

Assessment *contd....*

(ii) Integrated examinations lead to assessment of superficial knowledge

If, as much as possible, the exam questions are based on clinical scenarios, then the depth that is needed to tackle the clinical scenario will be assessed.

Also, blueprinting can be extended to achieve the exact proportion of items that will assess explanation, analysis, judgement, in addition to simple recall.

Assessment *contd....*

(iii) To what extent should modules assess clinical aspects?

As much as possible all exam questions should be based on clinical scenarios.

However, modules should assess the basic and para-medical sciences related to the clinical scenario.
e.g. basic sciences explanation of the symptoms and signs.

The same or a similar scenario can be used in the final year to assess clinical sciences.
e.g. patient investigations, management.

Can the curriculum be improved?

- **Assessments – perceived problems with integration**

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- **Clinical Stream 104 weeks, not being well utilized**

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Colombo Medical Curriculum

Basic Sciences Stream

Applied Sciences Stream

Clinical Sciences Stream

Community Stream

Behavioural Sciences Stream

Purpose – to integrate learning

But, there is a problem….

- ✓ **The rationale for introducing streams was because discipline-based learning did not represent how medicine is practised**

- ✓ **However, if streams are taught independently that too will not represent actual medical practice**

- ✓ **So, if different streams organise teaching and learning in isolation, still there will be an element of disintegration**

Colombo Medical Curriculum

Basic Sciences Stream

Applied Sciences Stream

Clinical Sciences Stream

Community Stream

Behavioural Sciences Stream
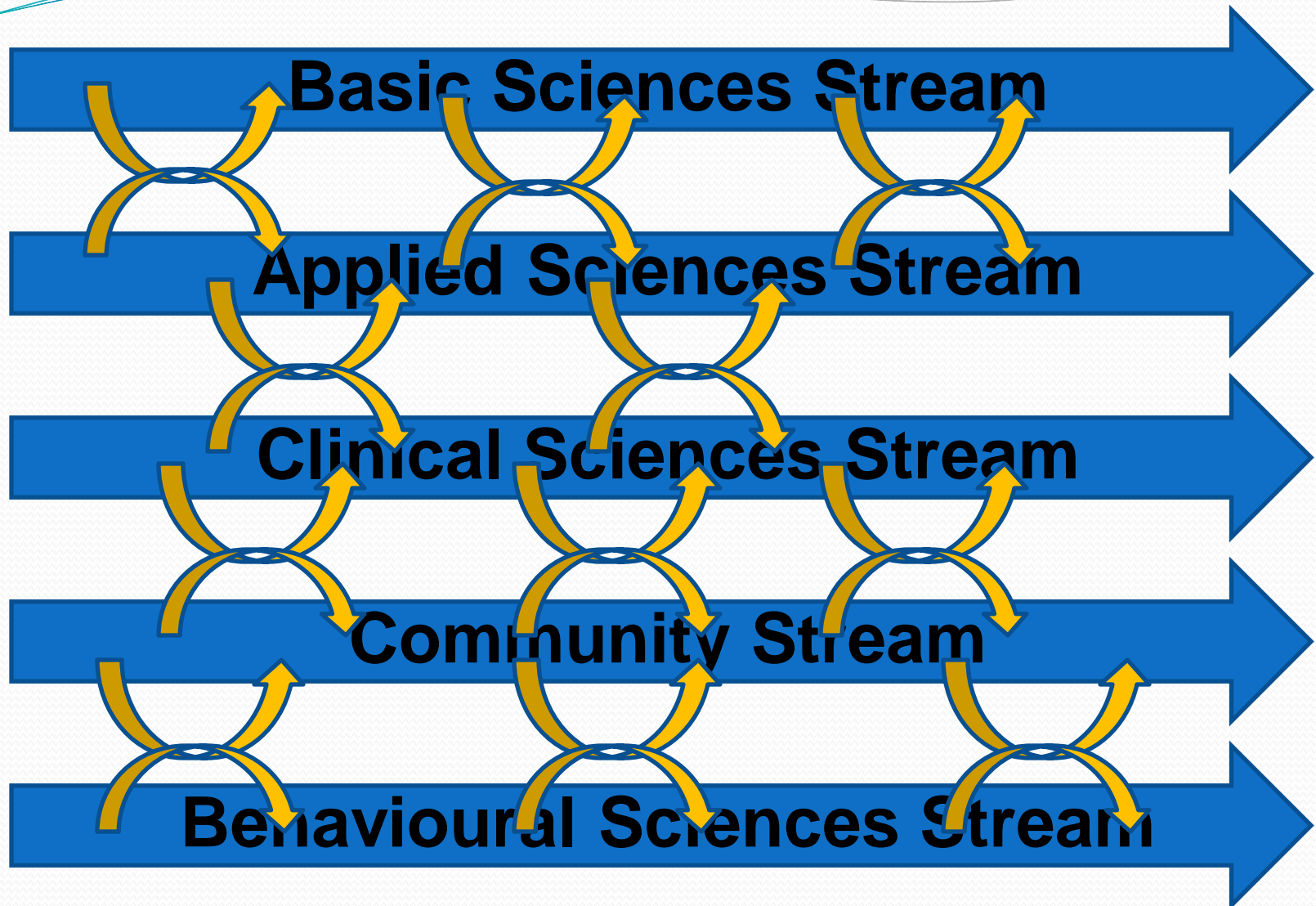
Pulling any of these streams independently will be ineffective

So, an effective curriculum is like a skeletal muscle in action….
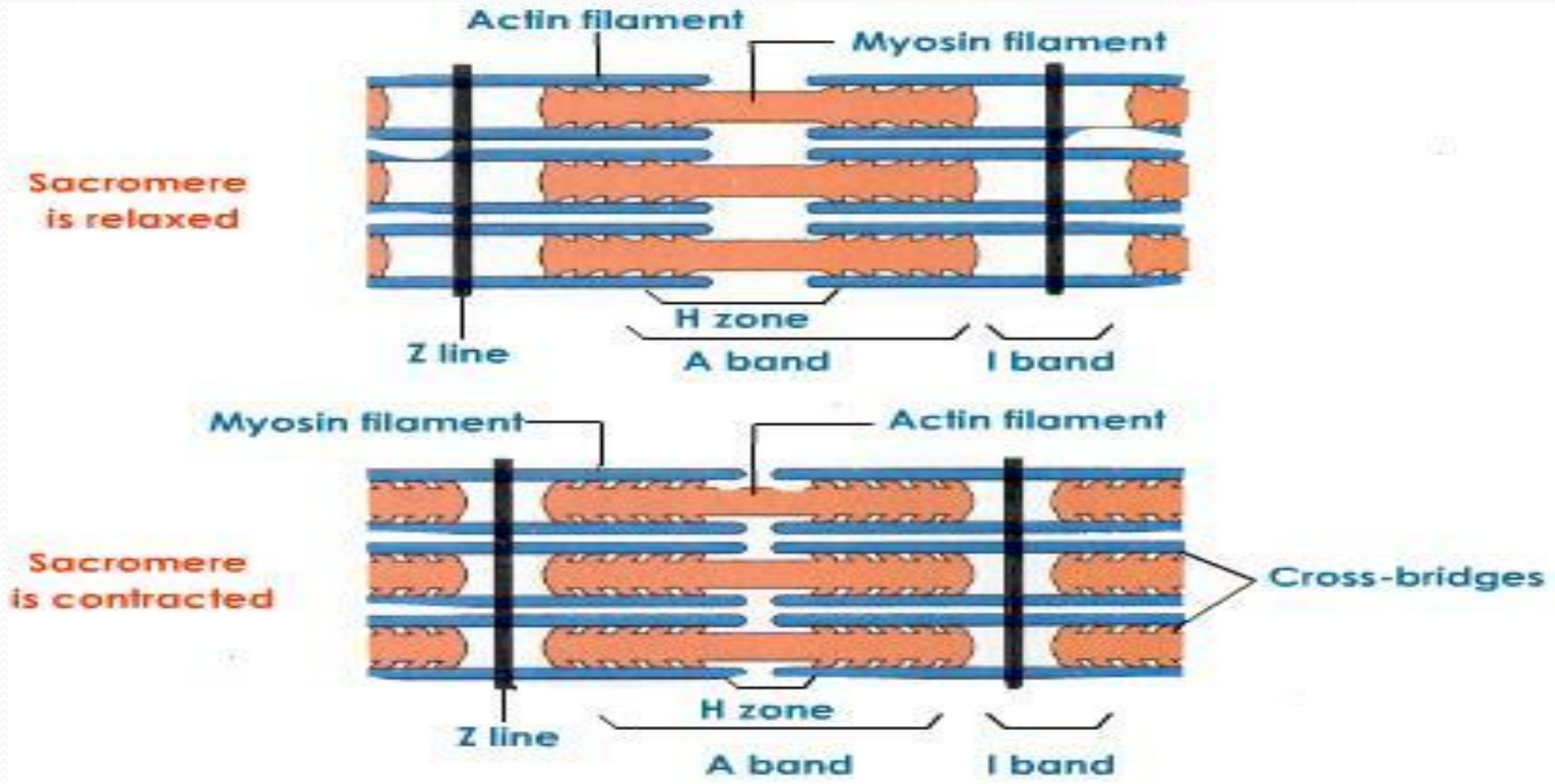
Similarly, to retain the true power of a curriculum all streams should have cross-linking with each other

Summary

1. **What are the needs?**
   Need for a competent, compassionate and caring doctor that meets health needs of individual and society

2. **What are the outcomes of the programme?**
   8 institutional objectives; 7 competencies

3. **What is the content of the programme?**
   5 streams (IBSS, ApSS, CISS, CS, BSS) with each stream having several modules

4. **How has the learning experience been arranged?**
   The main content has been arranged according to body systems with revisiting of content throughout the curriculum

5. **What teaching and learning methods are employed?**
   Lectures, PBLs/group learning, practicals, clinical, projects

Summary *contd………*

6. How are the students assessed?
MCQs/essay/SEQs – Knows and Knows how; OSCE/long case/short case – Shows how; Logbooks - does

7. What are the educational strategies employed?
Moved more towards SPICES end

8. What is the learning environment?
Supports curriculum goals, but students could be supported more with providing more resources + staff support

9. How are the details of the educational programme communicated to the learner?
Mainly through student handbooks & student representatives

10. How is the programme managed?
Various committees – module & stream committees, CD & EC, ASC, with MEDARC providing educational input

Summary *contd.........*

Can the curriculum be improved?

1. More integrated teaching and learning among streams - achieving the ideal mix

2. Improved blueprinting assessment – so that assessment will better represent the curriculum

3. Development of more integrated assessment - achieving the ideal mix