

## Example: A University

We refer to the courses and lecturers example, and provide a conceptual model of the domain, that is, an ontology.

```
<rdf:RDF
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#">

  <rdfs:Class rdf:ID="lecturer">
    <rdfs:comment>
      The class of lecturers
      All lecturers are academic staff members.
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="#academicStaffMember"/>
  </rdfs:Class>

  <rdfs:Class rdf:ID="academicStaffMember">
    <rdfs:comment>
      The class of academic staff members
    </rdfs:comment>
    <rdfs:subClassOf rdf:resource="#staffMember"/>
  </rdfs:Class>

  <rdfs:Class rdf:ID="staffMember">
    <rdfs:comment>The class of staff members</rdfs:comment>
  </rdfs:Class>

  <rdfs:Class rdf:ID="course">
    <rdfs:comment>The class of courses</rdfs:comment>
  </rdfs:Class>
```

```
<rdf:Property rdf:ID="involves">
  <rdfs:comment>
    It relates only courses to lecturers.
  </rdfs:comment>
  <rdfs:domain rdf:resource="#course"/>
  <rdfs:range rdf:resource="#lecturer"/>
</rdf:Property>
```

```
<rdf:Property rdf:ID="isTaughtBy">
  <rdfs:comment>
    Inherits its domain ("course") and range ("lecturer")
    from its superproperty "involves"
  </rdfs:comment>
  <rdfs:subPropertyOf rdf:resource="#involves"/>
</rdf:Property>
```

```
<rdf:Property rdf:ID="phone">
  <rdfs:comment>
    It is a property of staff members
    and takes literals as values.
  </rdfs:comment>
  <rdfs:domain rdf:resource="#staffMember"/>
  <rdfs:range rdf:resource="&rdf;Literal"/>
</rdf:Property>
</rdf:RDF>
```

```
<rdf:Description rdf:about="CIT1111">  
<rdf:type rdf:resource="&uni;course"/>  
  <uni:courseName>Discrete Mathematics</uni:courseName>  
  <uni:isTaughtBy rdf:resource="949318"/>  
</rdf:Description>
```

```
<rdf:Description rdf:about="949318">  
  <rdf:type rdf:resource="&uni;lecturer"/>  
  <uni:name>David Billington</uni:name>  
  <uni:title>Associate Professor</uni:title>  
</rdf:Description>
```

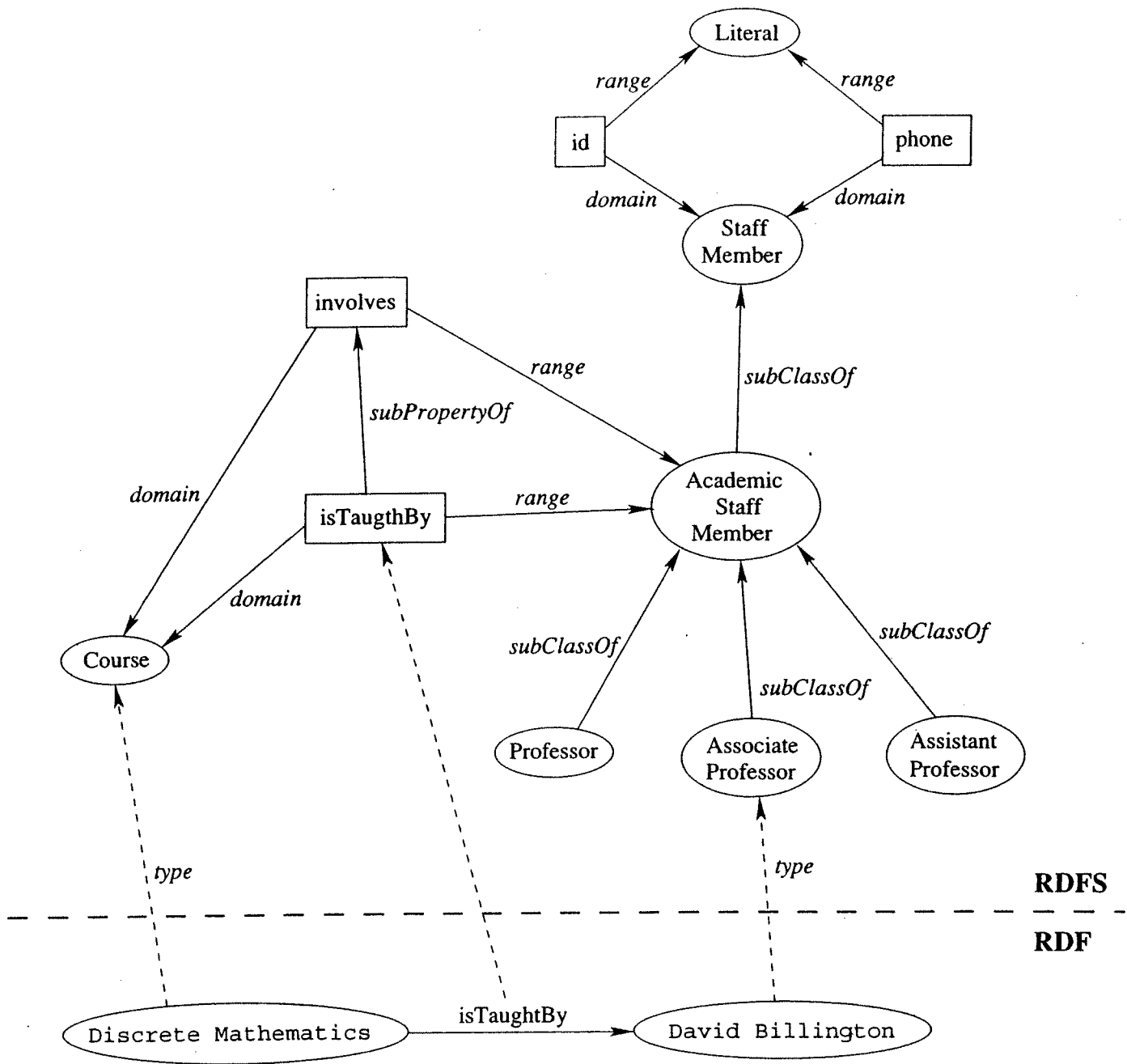


Figure 3.6 RDF and RDFS layers